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*Do M&A create value? The case of European Personal Luxury Good Industry*

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# ABSTRACT

This thesis focuses on the recent M&A activity in the Personal Luxury Goods (PLG) Industry. The industry was experiencing an ever-high interest from investors and showed a remarkable consolidation in the recent past. However, just a few pieces of research on the topic have been published until now. In accordance with the few existing works of literature, I argue that luxury acquirers experience positive abnormal returns at the M&A announcement. Thirty-one major acquisitions made by European companies involved in the PLG industry, occurring over the past 11 years, has been selected to test the hypothesis through an event study. Luxury acquirers indeed experienced significant positive abnormal returns on the announcement day. Differently, from the previous studies, such a result is valid for both conglomerates and small and medium acquirers. Nonetheless, conglomerates experienced lower abnormal returns. Among the variables most commonly related to value creation, only the ROE of the bidder and the cross-border nature of the deal had a significant explanatory power of the market reaction at the announcement day. The former with a positive while the latter with a negative coefficient.

*Key Words: M&A; Mergers; Acquisitions; Luxury, Personal Luxury Goods; Value*

# INTRODUCTION

Mergers and acquisitions have been around for more than a century. A vast literature has been produced on the topic. Nonetheless, the academic debate is still open: “Do M&As create value (for bidder firms)?”. Numerous studies tried to answer this question, and several methodologies have been employed and refined over time. The results are contradictory, and the general conclusion is that M&As on average yield null abnormal returns.

This elaborate aim to check such conclusions regarding a particular industry. Luxury Personal Goods market skyrocketed in the last few decades. The owner and CEO of the largest luxury conglomerate, LVMH, is Bernard Arnault, namely the second richest person in the world, according to BBI (Bloomberg Billionaires Index). On July 16, 2019, he surpassed Microsoft co-founder Bill Gates and is currently the only non-tech entrepreneur on the podium of wealthiest people in the world<sup>1</sup>. Furthermore, LVMH has been the most active group on corporate control market in the luxury industry.

The existing literature on M&As by luxury acquirers is few; this thesis aims to provide additional material to the debate. With the continuously positive performances, the industry is gaining increasing attention from the individual and institutional investors. Therefore, more research on the topic is needed not only to be able to make more robust conclusions but also to support the decisions by both potential acquirers and individual investors.

Chapter I aims to investigate and define the M&A activity and the luxury personal goods industry. The elaborate starts by questioning what mergers and acquisitions are (1.1) and by defining the phenomenon (1.1.1). Different types of M&As are then described (1.1.2). The periodicity of M&A activity over time is analyzed (1.1.3). Merger motives are discussed (1.1.4), with a particular focus on synergies (1.1.5). A model to evaluate benefits deriving from merger deals is presented (1.1.6), is the central assumption of the model, market efficiency is also discussed (1.1.7). Finally, the literature is analyzed (1.1.8).

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<sup>1</sup> The first place is held by Amazon founder Jeff Bezos.

The second part of Chapter I introduces the luxury industry (1.2.1). Investigates the definition of luxury (1.2.2) and defines the luxury personal goods market (1.2.3). The dynamics of industry consolidation are analyzed (1.2.4) together with the leading players (1.2.5). Recent and future M&A trends in the luxury industry are discussed (1.2.6) before stating the hypothesis of the elaborate (1.2.7).

Chapter II is more analytical and gets to the heart of the thesis, namely checking whether acquisitions create value for luxury companies. After a brief introduction (2.1.1), the event study type is selected to conduct the empirical study on the research question (2.1.2). The used methodology is discussed (2.1.3) before showing the sample data and results (2.1.5).

A summary of the elaborate (2.2.1) is presented before getting to the conclusions (2.2.2). Moreover, critical points of the research are discussed, too (2.2.3).

# CHAPTER I

## M&A IN THE EUROPEAN LUXURY INDUSTRY

### 1.1 WHAT ARE MERGERS & ACQUISITIONS

In all industrialized and, most recently, developing countries, corporate mergers, and acquisitions are a widespread phenomenon (Kumar, 2009). These transactions concern major decision making for the involved parties: strategic, operational, and financial. The ultimate goal is to create value, and value is created only if the two companies jointly worth more than separated.

Such actions often make the news in newspapers. Deals can be worth billions, and just a rumor may have a remarkable impact. For example, on March 19, 2019, Fiat Chrysler Automobiles stock surged on a merger rumor with the French PSA Group<sup>2</sup>. It recorded a +5.54% on Milan stock exchange just because of a talk! FCA did not start suddenly to produce and sell more cars, neither its strategic plans changed.

Nonetheless, its market value increased. That highlights the impact these deals have on the involved parties. Undeniably corporate mergers and acquisitions are reshaping many industries, not only automobile but also banking, entertainment, telecommunication, fashion, and others. The first part of this chapter is, therefore aimed at the definition and understanding of such phenomenon. Both theory and literature will be analyzed in order to provide a broader possible picture.

#### 1.1.1 Definition

M&A, the abbreviation of ‘Merger and Acquisition’ is a term used to describe a large number of transactions. It commonly refers to any process where the ultimate beneficial ownership, and the respective control of a firm, are transferred from a subject (or a group of subjects) to another.

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<sup>2</sup> [www.ansa.it/english/news/business/2019/03/19/fca-shares-surge-on-psa-merger-rumors\\_7df16e83-51fe-462e-bfde-5fc906dfe57a.html](http://www.ansa.it/english/news/business/2019/03/19/fca-shares-surge-on-psa-merger-rumors_7df16e83-51fe-462e-bfde-5fc906dfe57a.html)

Even though the two terms are often used interchangeably, they have slightly different meanings. Both, as we said, presume a change in control. A merger conceptually refers to two entities becoming one. Where an acquisition implies just a change in ownership; therefore, as a result of a merger, there will be only one legal entity. While, after an acquisition, the two organizations can both continue to exist in their previous legal forms. The change would be just from the control and ownership perspective of the acquired company. Such definition corresponds to the offered by Singh (1971).

The companies involved in a merger both agree on the voluntary fusion, giving up their former legal entities. It happens when the parties have a similar size and scale. Sometimes the term “merger of equals” is used. One example is the creation of DaimlerChrysler from the German Daimler-Benz and the American Chrysler automakers. Shareholders from both firms surrendered their shares to receive securities issued by the new company. To sum up, a deal to be called a merger should necessarily respect two conditions:

- Both parties must agree on the intent of the deal: come together to form a new entity.
- Interested firms must have equal size and negotiating power.

If the second term is not respected, it means that there is a more prominent firm merging a smaller one. For this reason, even though legally the two companies may consolidate, the transaction should be regarded de facto as an acquisition. Giving these conditions is not surprising that mergers happen more rarely than acquisitions. Differently, from a merger, an acquisition does not require the two companies to be of similar size. Therefore, the two parties in an acquisition are called bidder and a target. The former being the acquirer and the latter being the seller. In this case, the target does not need to be willing to the deal (if it is a public company). Indeed, we talk about friendly takeovers when the seller wants to give up the company control, as recently happened in Bulgari acquisition by LVMH. Alternatively, it is the case of hostile takeovers, as it happened in the KKR leveraged buyout of food and cigarettes conglomerate RJR Nabisco in the late 1980s. It is worth specifying that an M&A may involve just divisions or assets of the target company.

## 1.1.2 Types of M&As

Having in mind the distinction made above, we can classify M&As in different types according to different criteria. These classifications are relevant as they may have a different impact on the success of the deal and value creation.

### COMPETITIVE RELATION

It is the standard and most simple classification of M&A transactions. It is based on competitive relations occurring between the involved parties. As follows:

- *Horizontal*: when the two companies are direct competitors, therefore operate in the same business. It was the case of the Exxon Mobil merger in 1998, both oil companies.
- *Vertical*: when there is a supplier-client relationship between the two companies. For example, ABC Television acquisition by Walt Disney. The entertainment company was providing content to the television network. It is a case of vertical forward integration as the supplier bought the distributor. On the contrary, when a distributor/manufacturer acquires a supplier, the result will be vertical backward integration.
- *Conglomerate*: when the involved parties have no competitive relation at all. Operating in two unrelated industries. It may be the case of recent, 2018, acquisition of Belmond by LVMH. Both are considered to be high end, luxury, operators but in different industries. Belmond is a hotel and cruises operator while LVMH is a group owning many manufacturing brands. This transaction can be defined as a "mixed" conglomerate as LVMH is enabling a product/service expansion in the luxury market. As opposed to "pure" conglomerate that can be recognized in AOL's - Time Warner merger in 2000.

### DEAL STRUCTURE

As to the future of the target (or its assets), we can note four types of transactions:

- *Statutory Merger*: the target is merged into the bidder and ceases to exist.  
$$A + B = A$$
- *Consolidation*: the two companies both cease to exist and merge into a new entity.

$$A + B = C$$

- *Acquisition of Target*: the target continues to exist as a subsidiary of the bidder.

$$A + B = A_B$$

- *Acquisition of Assets*: target's assets are transferred to the bidder.

The last case is the rarest. From one side, it allows the acquirer to select only desirable assets and avoid burdensome liabilities. From the other side, transfer only assets can result in being more cumbersome, complicated, and time-consuming, especially when the target is large and regulated like it could be a global bank. Furthermore, the liabilities of the target also must end somewhere. For example, when iStar Financial purchased Freemont Investment's commercial real estate mortgage lending business, the liabilities of the target were divided between the buyer and the seller<sup>3</sup>. From a legal standpoint, acquisition of assets is an alternative to stock purchase and statutory mergers.

## FINANCING

The financing used by the bidder to pay the seller originates mainly three types of transactions:

- *Cash Deal*: when the bidder pays the seller entirely in cash.
- *Equity Deal*: when the bidder pays the seller entirely through its stocks. It may be agreeing on a fixed value or a fixed number of shares.
- *Mixed*: when the bidder pays the seller partly by cash and partly by equity.

The choice of financing impact on market reception and deal success has been widely studied in the literature. Cash deals have been proven to evoke better investors' confidence, which translates in acquirers better stock performance, as opposed to equity deals (Travlos, 1987). It is functional to explain the implications of these payment methods to understand the different market reception. A stock deal dilutes acquirer's ownership. Target shareholders receive acquirer's stocks and share the risk of failure.

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<sup>3</sup> <http://1.usa.gov/1roU57G>

If the transaction is unsuccessful buyer's stock will tank, consequently also the wealth of seller shareholders will decrease. Of course, if instead, the deal will be a success, the gains will be shared by all shareholders, including the newcomers. Therefore, a stock transaction may be interpreted by the market as the acquirer having low confidence in the deal. In fact, in cash acquisitions seller's shareholders does not end up with buyer's stocks. Doing so, all the risk and potential gains will have an impact only on the bidders' stock and its original owners' wealth. Not surprisingly, cash acquisitions are linked to better acquirer's confidence in the deal.

There is also another reason, namely the asymmetric information between the investors and the management of the bidder. The latter will prefer stock deals when they think their stock is overvalued. On the reverse, avoid such deals when they think the market undervalues their stock. This explanation was first offered by Jensen, 2005, and is known as the agency cost of overvalued equity. Specifically, the possibility to use cheap equity financing in the form of overpriced stock may decay managerial discipline and even push managers into making ill-conceived investments, particularly stock-financed acquisitions. That explains why investors should consider stock acquisitions as inferior investment decisions.

Usually, a stock offer is made in conjunction with an equity issue. A seasoned offering is typically received as a negative signal from the market. It could mean that the company is not able to finance projects with its revenues. Alternatively, the market could think management believes - based on private information - that the stock is overvalued, taking advantage of the moment to raise some extra funding (Myers and Majluf, 1984). "The market participants are aware of this behavior and adjust the stock price downwards upon the announcement of new issues" (Golubov, Petmezas, and Travlos, 2016).

### **STATUS OF THE TARGET**

Whether the target is a listed or a private company has a significant implication on the transaction. In the former case, the bidder must propose a public offer to buy shares (tender offer) to all target's shareholders. While in the latter case the transaction would be private between the bidder and the seller. In this instance, the target may be as well a business unit or just assets to be considered as a private transaction.

Several studies claim that the acquisition of private target results on average in positive extra returns for the acquiring company, whereas the acquisition of a public company leads on average to

negative or null extra returns. It may be due to several factors (Hazelkorn, Zenner, and Shivdasani, 2004). First of all, usually privately held companies are smaller and therefore, easier to integrate. On one side, the acquisition premium may also be lower as there is no primary valuation to add-on a premium. On the other side, it is also true that a private transaction may be riskier as there is less available information on the target. In such a context, confidential information acquires a leading role in decision-making.

### **IMPACT ON EPS**

It is a more technical classification. It looks at the combined pro forma future earnings per share. Whether they are going to increase or decrease, respectively to the bidder's current EPS. More specifically, the transaction is:

- *Accretive*: if the acquiring company EPS are going to increase as a result of the transaction
- *Dilutive*: if the acquiring company EPS are going to shrink as a result of the transaction

There is not a simple way to know in advance if the deal is going to be accretive or dilutive. Usually, to answer this question is made a model of the combined pro forma statements. The only exception is for all equity deals. In this case, acquiring a target with a lower P/E will lead to an increase in EPS. It is intuitive as it means swapping expensive stocks (respectively to earnings) with cheap ones. It translates to paying less for new earnings, therefore increasing the earnings per share.

Accretion/dilution analysis is often a key component in M&A analysis (Haas and Hodgson, 2013). An increase in EPS is considered to be beneficial to shareholders. With the same price, they are going to own more earnings. Therefore, accretive deals should have a positive impact on the share price. On the contrary, a dilutive deal is thought to be seen poorly by the investors. It leads to the belief that:

- EPS accretive transaction create value
- EPS dilutive transactions destroy value

What is ignored is the earning growth. It determines the P/E ratio of a company. A higher P/E ratio means that a company has higher expectations as to future earnings growth. Combining a firm with a higher P/E with one that has a smaller P/E leads to two counterbalancing effects. From one side, the

EPS are indeed going to increase (if the deal is stock financed). From the other side, the combined firm will have a lower P/E, dragged down by the target's lower earnings growth expectations.

As a result, there is no value creation. Being aware of this, managers may still pursue accretive deals in an attempt to fool the market. It is called the bootstrap game. New accretive M&A must continuously take place in order to perpetuate the illusion of value creation. Similarly, to a Ponzi scheme. However, it is impossible to accomplish endless acquisitions. When the process stops, acquirer's stock will inevitably crash. Therefore, the corporate finance theory shows no relationship between accretion/dilution and value creation/destruction. It is just a fact in a transaction, not a determinant or a predictor of value.

### 1.1.3 M&A Activity

Mergers are not a recent phenomenon. We have records of M&A activity in the US since the beginning of the 19th century. While in Europe there are no data prior to 1985. Nonetheless, it does not mean that there was no takeover activity in the old continent before that date. Simply, there is not a well-documented track of it.

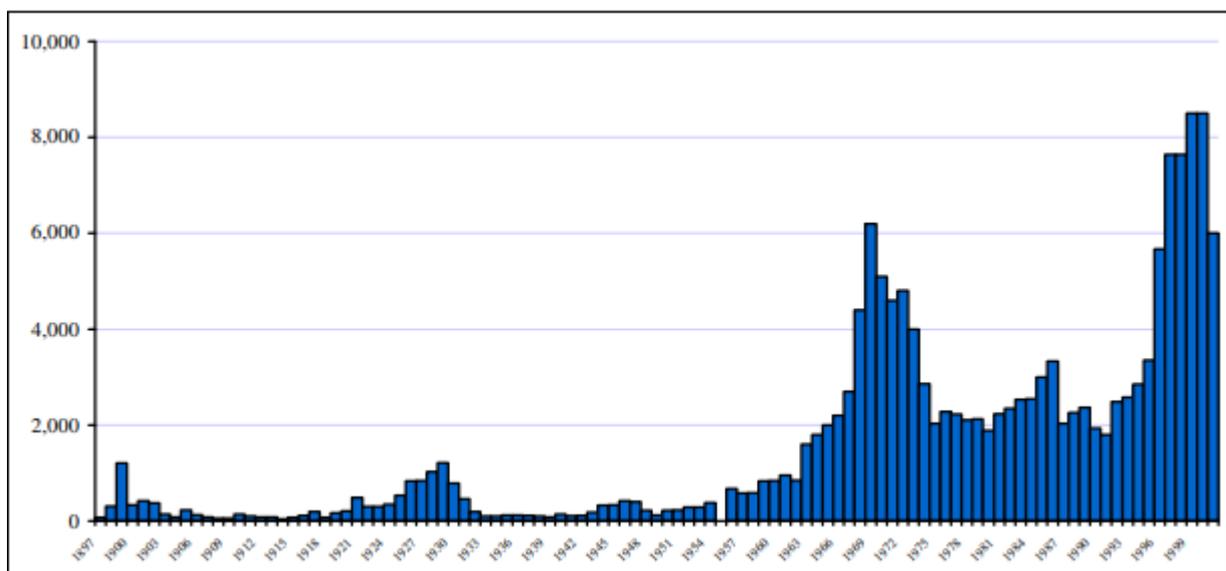


Figure 1: US Merger waves since 1897 (number of deals)

[source: *A Century of Corporate Takeovers: What Have We Learned and Where Do We Stand?* Martynova & Renneboog. 2008]

In Figure 1 is shown the evolution of M&A activity in the US by the number of deals. Year by year from 1897 to 1999. A pattern is easily recognizable as there is a precise sequence of surges and

downfalls. These are called "M&A waves" and has been extensively covered by the literature. Findings suggest that takeover activity is usually disrupted by stock market shocks and a consequent economic recession (Martynova and Renneboog, 2008). While a significant heterogeneity in the triggers of takeover activity is observed, these usually occur in times of economic recovery, coinciding with fast credit expansion. The takeover market is also often triggered by regulatory changes, such as anti-trust legislation, or deregulation of markets. Finally, M&A waves are frequently induced by industrial and technological shocks.

European M&A activity presents the same characteristics as above described. Looking at Figure 2, the number of deals in Europe reached US levels in the '90s. Furthermore, the trends are also remarkably similar. Therefore, the M&A waves analysis refer equally to both areas. Exception made for the first three mergers waves. These refer only to the US for the reason previously mentioned. Namely, the lack of empirical data and studies about the rest of the world before the late '80s.

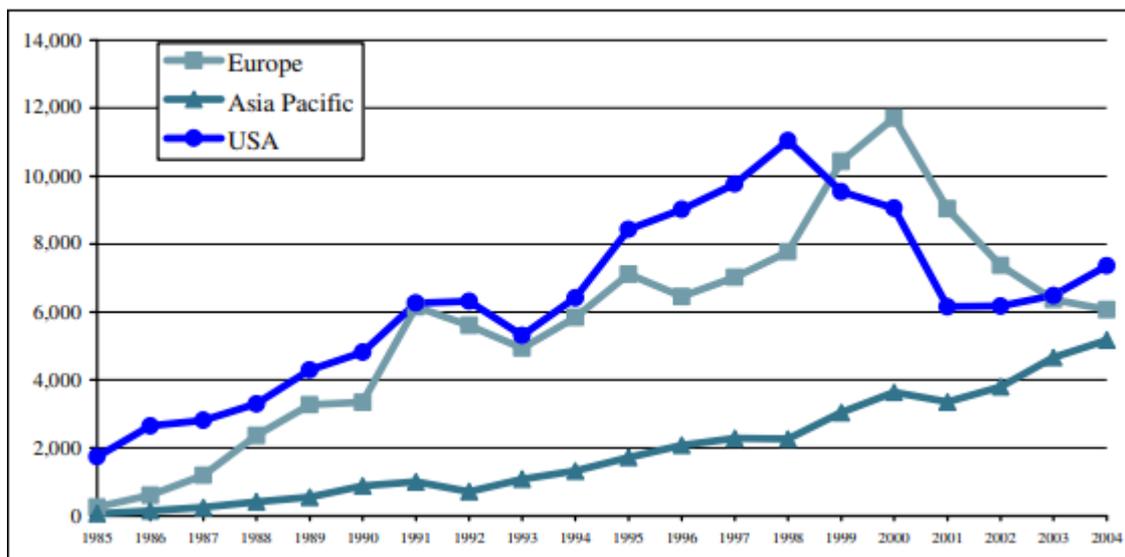


Figure 2: Worldwide merger waves since 1985 (number of deals)

[source: *A Century of Corporate Takeovers: What Have We Learned and Where Do We Stand?* Martynova & Renneboog, 2008]

The merger waves occurred as follows:

### 1ST WAVE 1893-1904

The first wave is known as the "Great Merger Wave". The forming of monopolies through horizontal mergers, mainly in the manufacturing and transportation industries, characterized it. Resulting in the forming of giants in steel, telephone, railroads and oil markets. For example, Standard

Oil trust emerged in this period. As every wave, it started in a period of economic expansion. While the end of the wave came due to several reasons. Namely the 1905 stock crash and economic stagnation, the threat of the First World War and the enactment of the Sherman Antitrust Act.

### **2ND WAVE 1919-1929**

As opposed to the first wave, the second has seen the creation of oligopolies and vertically integrated companies. Like Ford, for instance. Monopolies were recognized as being anti-competitive behaviors and persecuted by law. The enforcement of anti-trust laws discouraged horizontal mergers pushing de facto the companies toward vertical acquisitions. The most active industries during this wave have been food, printing, paper, and iron. It began with the economic recovery after the First World War and ended with the 1929 Great Depression, which led to a world economic crisis in the following years.

### **3RD WAVE 1955-1973**

The third wave took place after a long period of turmoil caused first by The Great Depression, followed then by the Second World War. This time mergers took the conglomerate form. There was an incredible managerial hype on acquisitions of unrelated businesses. It is possible to cite such transactions as the acquisition of Avis Rent a Car (car rental company) and Sheraton Hotels by TT telephone (International Telephone & Telegraph). It was driven by the common belief that diversification would be beneficial for companies. Mainly two arguments were used. A more stable stream of earnings and the creation of an own internal capital market. From one side, diversification indeed leads to less volatile cash flows if combining two, or more, not perfectly related businesses. A shock in one industry can be compensated by positive streams from other industries. Therefore, investing in a conglomerate, investors will bear less risk.

From the other side, diversification can be achieved directly by investors themselves; by buying stocks of companies operating in unrelated industries. The latter option, as well known in modern corporate finance, is more efficient and less expensive. The argument of an internal capital market is more controversial. At that time capital markets were less developed than now. The financing internal to conglomerate businesses did likely substitute the inefficiencies of the capital market.

As a result, these sizable firms were more complicated to manage. The distance of regional managers from the headquarters increased. It led to longer and more complex information flows. In addition, the increased number of businesses caused a decisional overload at the company

headquarters (Chandler, 1991). The third wave ended with the crash by the conglomerate stocks and the petroleum crisis during the '70s.

#### **4TH WAVE 1984-1989**

The fourth wave has been utterly different from the third. This time the conglomerates were dismantled. They proved to be inefficient, as it was noticed that their value worth less than the sum of their controlled businesses. The fourth wave was indeed characterized by conglomerates divestitures from one side and 'bust-up' acquisitions from the other. It means that large parts of the target were divested after the takeover.

Another peculiarity regards the structuring and financing of the deals. There was a boom of hostile takeovers conducted as leveraged buyouts and financed by junk bonds. In other words, bidders used a vehicle company in addition to large amounts of high yield debt to acquire the targets. It is the reaction of the board of directors of the target company that defines whether an acquisition is hostile or friendly. It is friendly if the board approves the acquisition. If instead, the board is contrary, the acquisition is considered to be hostile. Also this time, the M&A activity slowed down in response to an economic downturn.

#### **5TH WAVE 1993-2000**

The fifth wave is known for mega deals, the size of the mergers skyrocketed. Most of the biggest deals in M&A history has been realized during this period. The '90s were the years of information technology innovations, globalization, deregulation, and great consumers' confidence, all of which led to a bull market. As previously noted, in these years European M&A activity reached the US levels. Globalization led to an increase in cross-border mergers. This time the driving sectors were banking and telecommunications, as well as oil and gas industries. However, sizable deals were made in a multitude of industries, including the pharmaceutical and car industries. The bull market ended with the burst of the dot-com bubble at the beginning of the new millennium.

As Figure 2 data are limited to 1999, the next waves can be identified in Figure 3. It represents the worldwide data on merger activity from 1985 till the first quarter of 2019 in both the total number and value of deals per every year.

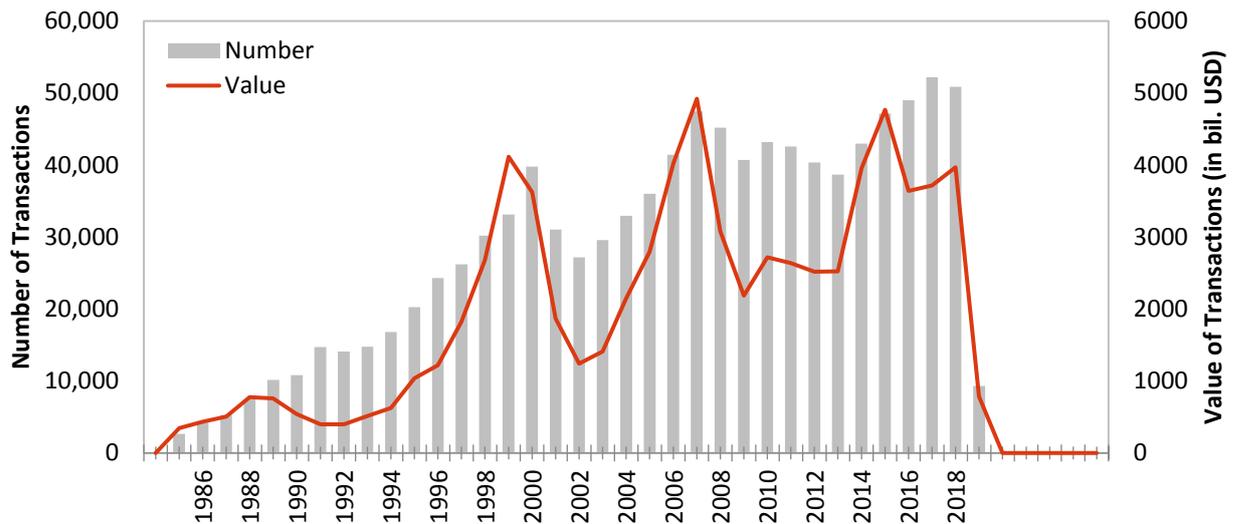


Figure 3: Worldwide M&A Waves since 1985 (number & value of deals)

[source: Institute for Mergers, Acquisitions & Alliances]

### 6TH WAVE 2003-2007

The sixth wave started only three years after the end of the fifth. When the economy began to recover, and the market began to boom again. Interest rates were low, so the cheap capital boosted acquisitions by private equity funds. Among the distinctive features of this brief but intense wave, we can notice the further development of globalization and an increase in shareholder activism. Cross-border deals, similarly to the previous wave, continued to be popular also in this period. The sub-prime crisis sharply stopped the wave at the end of 2007.

### 7TH WAVE 2014-ONWARDS

The seventh wave may be still currently (2019) taking place since 2014, as we can see from Figure 3. From then there was a continuous increase in both the number and value of M&As (exception made for 2016). It may be proof that the business environment after the sub-prime crisis, branded by risk aversion and a focus on organic growth by firms, is diminishing (Marcos Cordeiro, 2014). In recent years we assisted at the consolidation of the banking industry in Europe and other industries like fashion and pharma globally. There are also constant rumors<sup>4</sup> about further consolidation in the car industry to fuel M&A market in the following years.

<sup>4</sup> Unknown, *Consolidation is key for the automotive industry*, Financial Times, March 31, 2019.

A peculiarity of the recent merger waves is an inversion in roles by developed and emerging market companies. Usually, it was the former to acquire the latter, but in recent years, we have assisted in the inverse process taking place more and more often (Kumar, 2009).

#### **1.1.4 Rationale**

Once defined, what are M&As, their types, and their activity, one question urges: why do they happen? It is a different question from why there are merger waves. What is going to be discussed now is why companies choose to acquire or merge with other firms. Not why such deals peak simultaneously in several industries time by time.

Unfortunately, no single hypothesis is enough to cover all takeovers. However, a reasonably comprehensive picture of merger motives can be derived from shareholders primacy theory. According to this approach, known as the Friedman doctrine, the primary role of the corporation is to maximize shareholders value (Friedman, 1970). The traditional way to measure it is through the stock price. Increasing stock price, therefore, means increasing shareholders value. To accomplish this mission, and so improve the company's share price, managers seek continuously for growth.

The growth can be achieved internally, or externally. Internally by investing in increasing production capacity, expanding distribution platforms, bust innovation, or increase marketing efforts. The ultimate goal is to increase the net present value of cash flows by increasing market share or profit margins. External growth, instead, aims to achieve the same results by M&A transactions. Therefore M&A is a strategic decision. An alternative form of investment to fuel the growth of a company concerning internal development.

To sum up, mergers and acquisitions are strategic decisions to accomplish growth externally. The motive is to create benefits for the bidder's shareholders. According to literature, M&As can achieve such a goal in four different ways:

- By net gains created through synergies - *Efficiency theory*.
- By wealth transfer from customers - *Monopoly theory*.
- By wealth transfer from target's shareholders - *Raider theory*.

- By net gains through private information - *Valuation theory*.

The empire-building theory, instead, claims that mergers are planned and executed by managers who thereby maximize their own utility instead of their shareholders' value. Acknowledging that employee bonuses are usually subject to the size of the firm, managers are encouraged to expand their companies at the expense of shareholders. They do not only increase their compensation, doing so they also increase their power over more abundant resources, as well as increasing the view of their importance.

This approach has its roots in agency theory (Jensen and Meckling, 1976), which is concerned with the separation of interests between company owners and managers. Both parties are rational and wealth-seeking. Therefore, both try to maximize their own utility function in an egoistic way. Managers could so pursuit for greater control, higher compensation, and better working conditions at the expense of the shareholders of the firm. However, efficient markets should notice this behavior. Stock markets can discriminate between corrupt and qualified takeovers and inadequate bidders, which usually turn to be good targets later (Mitchell and Lehn, 1990). These empirical results imply that takeovers are a device for correcting managerial inefficiency if markets are efficient. So, while on the one hand, managers' pursuit of self-interest could be a motive for takeover, on the other, this situation will be corrected by the market mechanism.

Nowadays, Friedman's view of the corporation is being criticized. Modern literature argues that shareholders primacy theory leads to severe negative externalities. Environment, society, and other stakeholders could be damaged in order to increase the wealth of stockholders. Due to increasing attention to corporate social responsibility, the focus is shifting from stock- to stakeholders. This change in view could have a remarkable impact on how companies conduct their business and on the legal framework in which they operate. However, it is not in the intentions of the elaborate to enter this discussion. These theories have been presented to collocate M&A reasoning in the broader framework regarding corporate activity. Even attributing to executives, the broader goal of wealth creation for all stakeholders, it would not change the logic behind M&A motives as presented in this chapter.

All the aforementioned theories are called "rational". They all recognize that executives' decision of acquisition comes as a result of a logical decision process with a specific goal. As opposed to this

view, there are also behavioral theories. Among these, we can cite the process theory. It argues the rationality process of M&A decisions. Claiming that managers can oversimplify the incomplete available information, the choice can come from organizational routines or as an outcome of a political game.

One last theory to cite is disturbance theory. It considers the motives of merger choice coming from changes in the macroeconomic environment. Which, changing individual expectations and the overall level of uncertainty, may induce executives to opt for acquisition strategies. As the evidence in their favor is few and contradictory, the two least theories will not be further discussed.

The overall framework of merger motive theories is summed up in Figure 4:

Merger as rational choice	Merger benefits bidder's shareholders	Net gains through synergies	Efficiency theory
		Wealth transfers from customers	Monopoly theory
		Wealth transfers from target's shareholders	Raider theory
		Net gains through private information	Valuation theory
	Merger benefits managers		Empire-building theory
Merger as process outcome			Process theory
Merger as macroeconomic phenomenon			Disturbance theory

Figure 4: Theories of merger motives

[source: *Merger Motives and Merger Prescriptions*, Trautwein, 1990

### 1.1.5 Synergies

The previous chapter discussed the different theories proposed in the literature as to M&A motives. The prevailing one is efficiency theory. It is also the most cited reason by executives (Mukherjee and Kiyamaz, 2005). Whenever a merger is announced, there is a high probability that synergies will be cited. For instance, in March 2016, Marriott and Sherwin Williams announced multi-billion-dollar mergers with Starwood Hotels and Valspar, respectively. Both bidder's CEOs mentioned estimated annual synergies of \$250-\$300 million in their press releases. However, what exactly are synergies?

Synergies are any source of additional value deriving from combining two previously separate entities under the same control. The resulting company, therefore, can be more efficient than the original companies by eliminating redundancies and pooling more effectively resources. The logic is that with synergies two plus two can equal to five. Synergies occur where the market value of the two merged firms is higher than the sum of their individual values.

Mainly two categories of synergies are recognized:

- *Operating synergies*, which provide strategic advantages and economies of scope. They can be further divided into cost and revenue synergies. The former type is recognized as more valuable as cost cuts can more reliably be predicted and realized than revenue forecasts. Generally, operating synergies shows up as higher expected cash flows.
- *Financial synergies* are more focused and comprise tax benefits, increased debt capacity, diversification, and cash slack. “They sometimes show up as higher cash flows and sometimes take the form of lower discount rates.”<sup>5</sup>

Therefore, mergers are made to create value; this is achieved through synergies. But not all synergies are considered to be a reasonable motive for mergers. It means that not all of them create value for shareholders. Valid operational motives to merge could be considered:

- *Economies of scale*. Are the natural objective of horizontal mergers. They are realized when the unitary cost goes down as production volume increases. It happens because the fixed costs are going to be distributed among a more sizable number of produced units. More considerable size may lead to a higher bargaining power to use against suppliers.

Moreover, cuts of redundant costs can also be made. As an example, Chevron and Texaco, a year after the merger, reduced their integrated costs by \$1.8 billion and were continuing to reduce them by other \$400 million<sup>6</sup>. Economies of scale were also cited as reasons for conglomerate mergers. In this way, companies could share costs deriving from the

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<sup>5</sup>Aswath Damodaran Stern School of Business October 2005.

<http://people.stern.nyu.edu/adamodar/pdfiles/papers/synergy.pdf>

<sup>6</sup> Herrick T., “*Chevron Texaco’s Merger Savings Could be as Much as \$ 2.2 Billion*”, The Wall Street Journal, p. B4, 30 June 2002

administration, strategic planning, and financial control. However, as history has proved, it is cumbersome to manage all these processes jointly for many different companies operating in different businesses.

- *Economies of vertical integration.* Are instead the goal of vertical mergers. The intention is that of having greater control over the production process, including virtually all the passages from raw materials procurement to the distribution of the final product. Capturing upstream or downstream profit margins may cut costs, increase efficiency, and market power even though vertical mergers seem not being that popular as in the past. Nowadays, companies prefer outsourcing components than directly producing them. For example, Nike only designs shoes without running any production facility. All the manufacturing is outsourced to third parties. It allows them to fully leverage the competition between suppliers to get the lowest possible price. It also provides the flexibility to switch contractors when conditions change quickly.
- *Complementary resources.* Many times, big firms acquire smaller ones because of an exclusive product, idea, or capability. Offering in change financing and an already established sales organization. It was the case of Disney acquiring Pixar. From one side, Disney was a colossus with strong production, distribution, and merchandising. However, at the time, it lacked computer graphics competence. From the other side, Pixar was a relatively small company specialized in computer graphics that have made a few successful shots as Toy Story. Combining the two firms brought benefits to both. Disney could produce its ideas through modern technologies run by a talented team without spending years in internally developing them. While Pixar got access to an infrastructure of distribution and merchandising that would allow cashing its existing and upcoming ideas fully. When each firm has what the other needs, like in this case, value creation is likely to be realized.
- *Eliminating inefficiencies.* Companies that underperform their industry and peers are natural targets for a takeover. It is the case of firms with considerable amounts of cash, redundant costs, unrealized earnings, and little or no debt at all. Through the acquisition, management could be replaced. A more expert executive team could create value by optimizing the target and bringing it back to the industry average. This picture of takeovers as a disciplinary force in the capital market, which functions as a market for corporate control, was formulated by Jensen (Jensen and Ruback, 1983). His management competition model is a variation to the

efficiency theory. There are no real synergies created by pulling together assets or operations of the companies. Value is created by optimizing an existing stand-alone organization. A takeover is not even a necessary condition to make it happen. It is just a way to change management.

Even though it is sometimes referred to as management synergies, it better fits in complementary resources definition. What happens indeed is the combination of superior management capabilities with a situation of unexploited opportunities. The definition of management synergies is more appropriate to a situation when two management teams work more efficiently together than separate. Inefficient managers of public firms would never fire themselves. It would also be hard to replace them for the owners when the shareholding is widely spread. However, the threat of takeover can effectively force managers to maximize the market value of the firm. Otherwise, their companies will be acquired, and they will lose their jobs.

Therefore, according to Jensen, managing competition, through the market of corporate control, substitutes disciplinary shareholders control. It does not mean that all mergers are undertaken to improve the efficiency of the corporate world; however, in the aggregate, that is the effect. On the industry level, the most significant opportunities to improve efficiency comes from businesses with too many firms and overcapacity. Such situations drive M&A waves, which then translates into reducing capacity, occupation levels, and resources to invest in other fields. This phenomenon is known as industry consolidation.

Valid financial motives to merge could be considered:

- *Tax benefits.* Sometimes a company could have potential fiscal benefits but no earnings to take advantage of them. It could so acquire a profitable firm to gain from shielding its profits. On the reverse, it would be the same. A profitable company could merge one with losses and tax benefits. In both cases, the combined firm will pay fewer taxes than the sum of otherwise separate companies. The value of the synergy, therefore, equals the present value of tax savings.
- *Debt capacity.* It could increase if the cash flow of the bidder and the target are less than perfectly correlated as this would make the cash flows of the combined firm less volatile.

Greater debt capacity translates into a higher tax shield and may lower the WACC of the combined firm and therefore increase the valuation. Such argumentation is perfectly in line with MM Proposition (1958)(1963) and gives a consistent theoretical explanation to conglomerate mergers (Lewellen, 1971).

- *Cash slack*. It happens when a firm with a significant cash excess acquires a firm with valuable projects but insufficient capital. It allows target managers to avoid rejecting profitable investment opportunities due to insufficient financial resources. It would be a profitable way to employ excess cash for a firm with few investment opportunities. The additional value, naturally, lies in the present value of the projects that would not have been taken if the two firms have stayed apart. However, excess cash can also be interpreted from the agency theory point of view. Management can be reluctant to distribute excess cash to shareholders because it will reduce the company resources without increasing their wealth. Therefore, a takeover choice coming from cash slack can be brought back to the empire-building theory. Expanding the firm beyond its optimal scale may lead to organizational inefficiency and over-diversification (Gibbs, 1993). As previously argued, bad acquisition drives the bidder to be a desirable target, bringing us back the efficiency theory.

Some financial synergies do not represent a reasonable motive for mergers; these are specifically diversification and bootstrap game. Both of them have already been discussed. Diversification, as seen in the case of conglomerate mergers, can be more efficiently achieved by investors. The market does not recognize a premium for diversified stocks. Therefore, diversification by itself, does not create any value for the shareholders. The bootstrap game has been explained when introducing accretive mergers. It neither creates value for shareholders.

### **1.1.6 Valuation of benefits**

As previously stated, the main objective of M&As is value creation. Company *A* should acquire company *B* only if there are gains, synergies to take advantage of, for the bidder. That means that the transaction is desirable only if the two companies worth more together than separately. The framework for evaluating mergers that will be here illustrated is the one proposed by Myers, 1976. Let us suppose that the two firms have a present joint value of  $PV_{AB}$ . While separately they worth respectively  $PV_A$  and  $PV_B$ . Value is created only if  $\Delta PV_{AB}$  is positive, as follows:

$$\text{economic benefit} = PV_{AB} - (PV_A + PV_B) = \Delta PV_{AB}$$

Of course, also the cost of the transaction must be accounted for. The simplest case is a payment entirely by cash. The acquisition cost of  $B$  equals, therefore, to the amount paid minus the present value of  $B$ , considered on a stand-alone basis:

$$\text{cost} = \text{cash} - PV_B$$

The net present value of the deal for  $A$  is measured as the difference of the economic benefit and the cost to achieve it. The acquisition should consequently be executed only if its net present value is positive:

$$NPV_A = \text{benefit} - \text{cost} = \Delta PV_{AB} - (\text{cash} - PV_B)$$

This methodology allows focusing on two separate issues. The valuation of benefits considers economic gains. While the estimation of costs enables us to split these advantages among the two firms. The net present value for  $A$  is the part of benefits that at the end is retained by the bidder. While the cost for  $A$  stands for the benefits obtained by  $B$ . In fact, the cost is the premium that the acquirer pays to the bidder in excess of its standalone valuation:

$$NPV_B = \text{cash} - PV_B = \text{cost of the transaction for } A$$

Let us suppose that the market did not anticipate the transaction. At the announcement, the value of  $A$  should move from  $PV_A$  to  $PV_A + NPV_A$  with a consequent rise in the share price (if  $NPV_A > 0$ ). The same accounts also for  $B$  with its value increasing from  $PV_B$  to  $PV_B + NPV_B$ . Despite an announcement of a positive NPV, the market valuation could sink. In that case, investors do not believe in value creation by the transaction or, in their view, the cost exceeds the benefits.

### 1.1.7 Market Efficiency

As we have just seen who ultimately states whether a transaction creates value or not is the market. If the share price of the bidder goes up after the acquisition announcement, it means that the deal is thought to be beneficial. More precisely, the investors attributed to it an increase in future cash flows

for the acquirer. Moreover, the present value of these cash flows is higher than the acquisition price. That is the concept of a positive net present value.

Therefore, according to this methodology, we totally rely on the market's ability to determine the right prices for the stocks. As when the information of the merger is available to the investors, at the announcement date, we expect a change in stock prices to reflect the new prospects of the future cash flows. Doing so we implicitly accepted the efficient market hypothesis. We implicitly accept that the prices of the securities fully reflect all the available information about securities. However, can we entirely rely on market valuation? Is it really efficient? And if yes, to which degree?

If the market is efficient, it reflects all the available information on the securities valuation. So only new information will cause a change in price. New information, by definition, is new, meaning it is unexpected and did not exist before. It was not therefore incorporated yet in the price before being announced. Being unexpected it could be as good as bad, being therefore unpredictable. If it could be predicted it would be part of today's information and therefore already included in the price. As a natural consequence, the same as new information also the consequent change in prices must be unpredictable and random. It is the concept of a random walk. Maurice Kendall first observed the absence of predictable patterns in 1953 (Kendall and Hill, 1953).

His attempt to find recurrent patterns in stock prices movements failed. As it could be expected, a forecast about favorable future performance leads instead to favorable current performance. That happens because all market participants try to get in on the action before the price increase. Intelligent investors compete to discover relevant information on which to buy or sell stocks before the rest of the market becomes aware of such information. As it is often said, the most precious commodity on Wall Street is information. It is, in fact, the competition for the information itself that should ensure the stocks prices to reflect all available information. To spend time and resources on gathering new information, this should likely generate higher investment returns.

Without an incentive, no investor will bother to look for and uncover additional data. Grossman and Stiglitz, therefore, proposed in 1980 "...a model in which there is an equilibrium degree of disequilibrium: prices reflect the information of informed individuals (arbitrageurs) but only partially so that those who expend resources to obtain information do receive compensation." (Grossman and Stiglitz 1980). In their paper, they do not argue against the market efficiency hypothesis but try to refine it. They claim that the price system does not reveal all the information about the true value of

risky assets. It is common to distinguish among three forms of market efficiency, namely weak, semi-strong, and strong:

- The *weak* form asserts that stock prices already reflect all information contained in history and past trading. It implies trends analysis to be fruitless.
- The *semi-strong* form asserts that stock prices already reflect all publicly available information about the prospects of the firm, in addition to past performance.
- The *strong* form asserts that stock prices reflect all relevant information, including insider one.

The weak and semi-strong versions claim that prices should reflect all available information. Information is considered to be available if investors have access to it from publicly available sources. Private and insider information are then excluded by definition. According to strong form, instead, also such privileged information is incorporated in the stock prices. The strong form of market efficiency is, in fact, an extreme hypothesis. Insiders ability to profit by trading their firm's stock has indeed been documented by several studies (Seyhun, 1986), (Jaffe, 1974), (Givoly and Palmon, 1985). Managers possess information not known by the market; that is why it exists the crime of insider trading. To prevent insiders from profiting by exploiting their privileged information.

The weak and semi-strong hypothesis of market efficiency seems to be much more reasonable and confirmed by Kendall's random walk results. Nevertheless, some controversy exists. The weak form implies the absence of patterns in stock prices. However, some studies on serial correlation suggest otherwise. Serial correlation, indeed, refers to the tendency for stock returns to be related to past returns. A positive correlation means that positive returns tend to be followed by other positive returns (momentum effect). A negative correlation, on the opposite, means that positive returns tend to be followed by negative returns (reversal effect). Conrad and Kaul (1998), and Lo and MacKinlay (1988) analyzed weekly returns of NYSE stocks and observed a positive serial correlation over short horizons.

However, the correlation was weak and did not suggest the existence of trading opportunities. Jegadeesh and Titman (1993) analyzing intermediate-horizon stock behavior (3 to 12 months holding

period), found a momentum effect. They conclude that while the performance of individual stocks is highly unpredictable, portfolios of best-performing stocks in the recent past appear to outperform other stocks offering profit opportunities. Also, studies on the long horizon, multi-year returns found a pattern.

Contrary to short and mid horizons, Fama and French (1988), and Poterba and Summers (1988) indicate pronounced negative serial correlation in performance of the aggregate market. These market trends led to a fad hypothesis, which asserts that the stock market may overreact to relevant news. Such overreaction causes the momentum effect over short time horizons. Over a more extended period, the market corrects its initial euphoria by a reverse effect. Negative returns will follow positive ones and vice-versa. These market movements give an appearance to be fluctuations around its fair value. Even though these studies seem to deny the market efficiency theory, they are far from being conclusive. An alternative interpretation of these results holds that they indicate only that the market risk premium varies over time. The apparent overshooting and correction may be no more than a rational response of market prices to changes in discount rates.

Studies on the semi-strong form also found out patterns of returns that seem to contrast the efficient market hypothesis. These are namely:

- P/E effect discovered by Basu (1997) and further analyzed by him a few years later (1983). Portfolios of low P/E (value) stocks have exhibited higher average risk-adjusted return than high P/E (growth) stocks.
- Small firm effect originally documented by Banz (1981). Stocks of small firms have earned abnormal returns. It may not be due to market inefficiency. Smaller firms may have a higher risk premium as they are less known and analyzed, as suggested by Merton (1987). Another factor that arises the demanded rate of return premia for small stocks is the liquidity. The fewer available information and lower level of liquidity arise transaction costs for small stocks and could easily wipe out any apparent abnormal profit opportunity.
- Book to market ratios, as shown by Fama and French (1992). It refers to the tendency of the investments in shares of firms with high ratios of the book to market value to generate abnormal returns.

Whether the markets are inefficient or the risk adjustment procedure inappropriate is an open debate. Fama and French (1993) argue that anomalies can be explained as a manifestation of risk premiums. Conversely, Lakonishok, Shleifer, and Vishny (1994) claim that these phenomena are evidence of inefficient markets.

As no one has ever proved to be able to beat the market systematically, in this elaborate will be accepted the semi-strong market efficiency hypothesis. Therefore, the market valuation will be considered as the one reflecting all the past and also currently available information on the stock price.

### **1.1.8 Literature evidence**

Research on M&A has been extensive and often contradictory. The most studied and debated topic is whether these transactions create value or not. A common conclusion is that M&A, on average, fail to create value for acquiring firm's shareholders. Nonetheless, as it has been shown, mergers by corporations reoccur in waves. The fact that managers seem to ignore empirical findings is called success paradox (Cording, Christmann and Bourgeois, 2002).

This point is more controversial than it could appear. If mergers succeed or fail depends on the definition of "success". How do we evaluate an investment? We need a benchmark. This is the return an investor can earn on other investment opportunities of similar risk. The comparison between the return earned and the opportunity cost may lead to three outcomes:

- *Negative.* The investor could have done better investing in another opportunity of similar risk. In this case, value has been destroyed.
- *Null.* Investment return equal to the required return. The investment results in a zero net present value, giving shareholders just what they required for the risk. Value is conserved.
- *Positive.* Return on the investment tops the return required. Investors earn an extra return compared to the market. Net present value is positive, meaning value has been created.

Among these three options, only the first one can be recognized as a failure in economic terms. In the second case, the investor earns the required return; therefore, he should be satisfied. The last instance, instead, is clearly a success. In line with what discussed in previous chapters here is taken into consideration only shareholders welfare.

Before discussing the results of empirical studies is worth specifying the methods used in research. These were mainly four:

1. *Event studies*. The stock prices of both involved firms are examined shortly after the merger announcement. The abnormal returns are calculated. These are nothing else than the stock return less a benchmark of what investors require. Typically, the benchmark is the rate of return implied in the capital asset pricing model (CAPM) or simply the return on a large market index like the S&P 500. The main underlying assumption is that investors are capable of accurately predicting the combined firm's future cash flows. These studies are regarded as forward-looking and rely on efficient market hypothesis. Other two assumptions are unexpectedness of the event and the absence of other effects. Meaning that the event should not be anticipated before its announcement so that the firm's stock prices fully reflect the event effect at its announcement day. In addition, no other events should impact the stock prices of the surveyed firm during the event window.
2. *Accounting studies*. These consider broad accounting-based measures of performance (such as net income, ROE, ROA, EPS, leverage, or liquidity) of acquiring companies before and after the acquisition. Main areas of investigation are productivity, innovation, and growth. The analysis of results takes a longer-term perspective here as it requires to see the effects of the transaction on financial statements. These will fully take place only after the completion of the integration process. The results are then compared with the non-acquirer peers to see whether the M&A strategy brought benefits or not.

An explicit limitation is that accounting measures are affected by a large number of factors. For instance, since the available financial statements are only the consolidated one, it is impossible to isolate the merger effect from the other ongoing

changes in the company. They can change over time and differ among countries, that profoundly complicates the use of this approach.

3. *Survey of executives.* To investigate the success of the merger, a sample of executives is presented a standardized questionnaire. Results are then generalized from the sample. The main strengths of this approach are the possibility to collect some private data, or at least evaluations made on private data, and the chance to evaluate the motives of the transaction and whether these have been accomplished. However, the survey is based on managers perceptions, which could be biased. According to the hubris hypothesis (Roll, 1986), managers are keen to overestimate their capabilities and therefore, could also exaggerate their success. Also, as the integration is a long process, to assess an M&A success, the surveys are conducted several years after the deal took place. That makes managers perception even less reliable, and meanwhile, the management of the company may have even changed.
4. *Clinical studies.* According to this approach, every M&A is considered as a unique event occurring in a unique environment. It implies a greater focus on a single or a small group of transactions. It is hard to generalize the conclusions as the research methodology in clinical studies is inductive. With a tiny sample, statistical inference to drive conclusions about the population will not be significant.

In Table 1 are presented more in detail the strengths and weaknesses of every methodology.

Event and accounting studies are hypothesis test. Their results can confirm or disapprove the null hypothesis, which states that the phenomenon is due to chance. Being statistical tests, they do not prove a phenomenon with certainty. At best they can state that, with a certain degree of confidence, the result was not obtained by chance.

	Market-based Returns to Shareholders ("Event Studies")	Accounting Studies: Returns estimated from reported financial statements	Surveys of Managers	Clinical Research (Case Studies)
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• A direct measure of value created for investors.</li> <li>• A <i>forward-looking</i> measure of value creation. In theory stock prices are the present value of expected future cash flows.</li> </ul>	<ul style="list-style-type: none"> <li>• Credibility. Statements have been certified. Accounts have been audited.</li> <li>• Used by investors in judging corporate performance. An indirect measure of economic value creation.</li> </ul>	<ul style="list-style-type: none"> <li>• Yields insights into value creation that may not be known in the stock market.</li> <li>• Benefits from the intimate familiarity with the actual success of the acquisition.</li> </ul>	<ul style="list-style-type: none"> <li>• Objectivity and depth in reconstructing an actual experience.</li> <li>• Inductive research. Ideal for discovering new patterns and behaviors</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>• Requires significant assumptions about the functioning of stock markets: efficiency, rationality, and absence of restrictions on arbitrage. Research suggests that for most stocks these are not unreasonable assumptions, on average and over time.</li> <li>• Vulnerable to confounding events, which could skew the returns for specific companies at specific events. Care by the researcher and law of large numbers deal with this.</li> </ul>	<ul style="list-style-type: none"> <li>• Possibly non-comparable data for different years. Companies may change their reporting practices. Reporting principles and regulations change over time.</li> <li>• Backward looking.</li> <li>• Ignores value of intangible assets.</li> <li>• Sensitive to inflation and deflation because of historic cost approach.</li> <li>• Possibly inadequate disclosure by companies. Great latitude in reporting financial results.</li> <li>• Differences among companies in accounting policies adds noise</li> <li>• Differences in accounting principles from one country to the next make cross-border comparison difficult.</li> </ul>	<ul style="list-style-type: none"> <li>• Gives the perspectives of managers who may or may not be shareholders, and whose estimates of value creation may or may not be focused on <i>economic</i> value.</li> <li>• Recall of historical results can be hazy, or worse, slanted to present results in the best light.</li> <li>• Typically surveys have a low rate of participation (2-10%) that makes them vulnerable to criticisms of generalizability.</li> </ul>	<ul style="list-style-type: none"> <li>• Ill-suited to hypothesis testing because the small number of observations limits the researcher's ability to generalize from the case(s).</li> <li>• The research reports can be idiosyncratic making it difficult for the reader to abstract larger implications from one or several reports.</li> </ul>

Table 1: Comparison of research approaches regarding the profitability of M&A

[source: Does M&A Pay? A Survey of Evidence for the Decision-maker, Bruner, 2004]

Event studies results can be divided into three categories (Bruner, 2004):

- *Returns to target firms.* All the studies seem to converge on the fact that target firms' shareholders enjoy significantly positive premium returns.
- *Returns to buyer firms.* These are more problematical, the results varied among different studies. No clear pattern can be assumed as studies equally distributed among the three possible outcomes of value creation, value conservation, and value destruction. A logical conclusion is that in aggregate abnormal returns to buyer shareholders from M&A activity are essentially zero. Basically, buyers break even on average.
- *Returns to buyer and target firms combined.* In aggregate, these researches suggest that M&A does pay the investors in the combined buyer and target firms. It was foreseeable as target shareholders gain from the transaction while bidder shareholders break-even. However, such a conclusion is not obvious as buyers are usually significantly larger than

targets. Therefore, on an absolute dollar basis, a small loss for buyer's shareholders may offset a significant return for target shareholders.

Findings based on the analysis of reported financial performance focuses more on profitability but does not lead to an unambiguous conclusion. Findings from surveys of executives are qualitative but offer results surprisingly similar to the scientific studies. However, the absence of a statistical test limits the assertions that can be made on outcomes coming from surveys. While clinical studies being specific allows only to generalize possible drivers of returns for acquisitions. Generally, they emphasize the role of strategic, financial, and organizational issues. Are, instead, very interesting the findings of the drivers of profitability. Such conclusions can be so summarized:

- *Focus is better than diversification.* Multiple studies showed that relatedness between the businesses of the buyer and seller is positively associated with returns (Comment and Jarrell, 1995), (Singh and Montgomery, 1987), (Megginson, Morgan, and Nail, 2004).
- *Value-oriented acquirers perform better.* Rau and Vermaelen, 1988 found that buyers with low book-to-market ratios outperformed buyers with high book-to-market ratios.
- *Increase in market power does not pay.* Studies by Ravenscraft and Scherer (1988), Mueller (1985), and Eckbo (1992), show that efforts to improve market position through M&A yield no better performance, and sometimes worse.
- *Better pay in cash.* As already discussed at deal announcements stock deals are associated with negative returns while cash deals are associated with null or slightly positive returns. Such results were found by Asquith, Bruner, and Mullins (1990), Huang and Walkling (1987), Travlos and Papaioannou (1991), and Yook (2003).
- *M&A programs are associated with the creation of value for buyers.* Asquith, Bruner, and Mullins (1983), and Schipper and Thompson (1983) found out that when firms announce they are undertaking a series of acquisitions in pursuit of some strategic objectives, their share price rises significantly.

Few studies have been published specifically on M&As in the luxury industry. Among others, we can cite Meinshausen and Schiereck (201) and Konigs and Schiereck (2008). The results of the two

papers are mostly identical; both found highly significant positive abnormal returns to acquiring shareholders. Moreover, according to them, the small profitable companies benefit most from M&As while luxury conglomerates that act as frequent acquirers do not, on average, significantly increase shareholder wealth.

## **1.2 LUXURY INDUSTRY**

### **1.2.1 Introduction**

Luxury is as old as civilization. Silk, one of the finest and most noble fabrics, origins can be traced back for millennia. It was discovered during the Longshan period of Ancient China, 3500-2000 BC. China managed to keep such precious secret to itself for over two millennia. Merchants, as Marco Polo had to afford dangerous and years-long journeys to take silk to the west. No wonder only the richest could afford clothes made of this delicate fabric.

Luxury is a prefix that can be used to describe any product or service, a car, a food, a hotel or a wallet, virtually anything. Nowadays, luxury is more affordable than ever. Being a multi-billion industry is no more a niche market. Here it will be presented and discussed in order to contextualize the relative M&A activity.

### **1.2.2 What is luxury?**

We all use this term, which is well eradicated in modern culture. However, when it comes to explicitly and unambiguously explain it, the concept gets more blurred. In the common conception, luxury is something desirable, of quality, expensive, and not accessible to everyone. The problem with such a definition is that it is relative; in fact, luxury is a relative concept. For one person it may merely be a cup of clean drinking water, while for someone else it could be a designer handbag.

Not only such concept is relative to a specific person's values, but also tastes and economic wealth. A 300\$ wallet may be expensive and desirable to most people but cheap and mediocre to Warren Buffet. Luxury is also a concept that evolves over time: a fur coat that once distinguished its owner may be retired to the back of a wardrobe in disgrace. It turns out that not even luxury brands have an answer. Jana Scholze, one of the curators of the 2015 "What is luxury?" exhibition at London's

Victoria & Albert Museum, said that this is a question that luxury brands ask themselves on a daily basis, "they are puzzled by this question as anyone else".

Initially, luxury was defined by scholars as something which was more than necessary and ordinary. However, not everything that falls in such a definition is a luxury. Kemp (1998) found out a better definition by comparing the necessity-luxury continuum with the hierarchy of needs produced by Maslow (1970), which ranges from basic physiological needs such as hunger (necessities) up to needs of self-actualization (luxuries). Adding desirability to the previous definition, luxury becomes anything desirable and more than necessary and ordinary. Even this definition made by researchers is relative. Concepts of what is ordinary and desirable are personal. For instance, even musical talent can be desirable and is more than necessary and ordinary. Nonetheless, no one considers musical talent to be a luxury; it is not even sellable.

The scope of the definition must be reduced to be useful in an economic study. Microeconomy defines all marketable goods as luxury if their demand increases more than proportionally to income rises so that expenditures on the good become a more significant portion of overall spending. However, even this scope is too broad as it refers to categories of goods like cars or air conditioners in general. As we all know, not all cars or air conditioners can be considered luxury goods. There is a need to define a sub-category within the different type of goods. As it was mentioned, luxury is a prefix that can be applied to any type of products or services.

Here comes the so-called managerial understanding of luxury, allowing distinctions within a product category: luxury products exceed what is necessary and ordinary compared to other products in their category. With this definition, we can state that a Rolls-Royce is a luxury car while a Fiat is not. What differentiates a Rolls-Royce from a Fiat is the symbolism, the quality, the aesthetics, the rarity, the extra-ordinariness, and of course the price. Some of these categories are notoriously correlated with one another; for instance, the price for a product is expected to rise proportionally with its quality.

Still, these points of differentiation are not objective and universal. They are not boolean, but continuum variables; and most importantly, their value does not depend as much on objective characteristics of the products as on the consumers' subjective perception of them. It reflects on the luxury industry itself, which is not homogeneous but rather hierarchical. Indeed, the luxury market is

often segmented by practitioners into three levels, namely accessible luxury on the base, then premium luxury on a higher level and finally inaccessible luxury on the top (Allèrès, 1992).

### **1.2.3 Personal luxury goods market**

As we have just seen, it is more cumbersome than it appears to identify what is from what is not luxury. The concept is relative and assumes connotation of vertical instead of horizontal differentiation. Most industries are defined horizontally; for instance, car and apparel industries are easily recognizable. The luxury industry is instead, a subset of all the other industries. Within both car and apparel industries, there is, in fact, a sub-group of luxury cars and luxury-apparel. Relatively to other industries is more cumbersome to gather together and analyze such a cross-sectional industry.

However, as this market has been considerably growing in the recent past, there are plenty of studies on the topic made by the major consulting firms. Bain & Company, together with Fondazione Altgamma, publish every year a global luxury market study. They estimated that the global luxury market worth EUR 1.171 Billion in 2018 (D'arpizio and Levato, 2019), as shown in Figure 5. The market was divided into several categories: personal luxury goods, luxury cars, luxury hospitality, fine wines & spirits, gourmet food & fine dining, fine art, high-quality design furniture & homeware, private jets & yachts, and luxury cruises. The top three contribution segments were luxury cars with EUR 495 billion (42.3%), personal luxury goods with EUR 260 billion (22.2%) and luxury hospitality with EUR 190 billion (16.4%).

Personal luxury goods (PLG) are those products that are employed by the consumers to manage their self-image, and by doing so, they build up a personal connection with these products. These can be recognized with products like apparel, jewelry, shoes, bags, watches, and cosmetics. Looking at Figure 6, we can note that starting from 1996, luxury personal goods market more than tripled, increasing from 76 to 244 billion in 20 years. Throughout the whole period, the growth has been constant, with a slowdown of only a few years corresponding the dot com bubble and a quick recovery from the subprime crisis in just two years. In the same study, the PLG market is forecasted to grow to a value of EUR 320-365 billion by 2025.

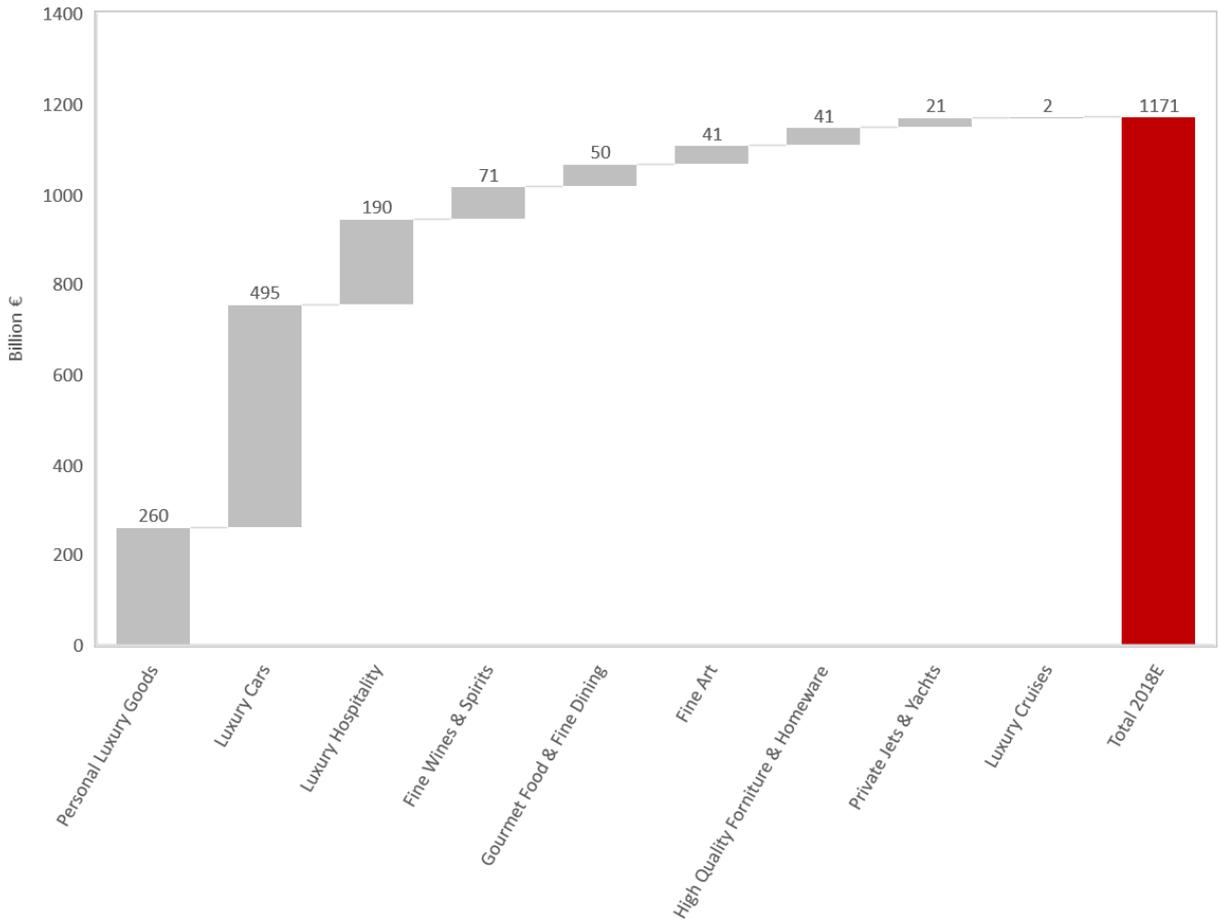


Figure 5: Global luxury markets in 2018

[source: Altagamma 2018 Worldwide Luxury Market Monitor]

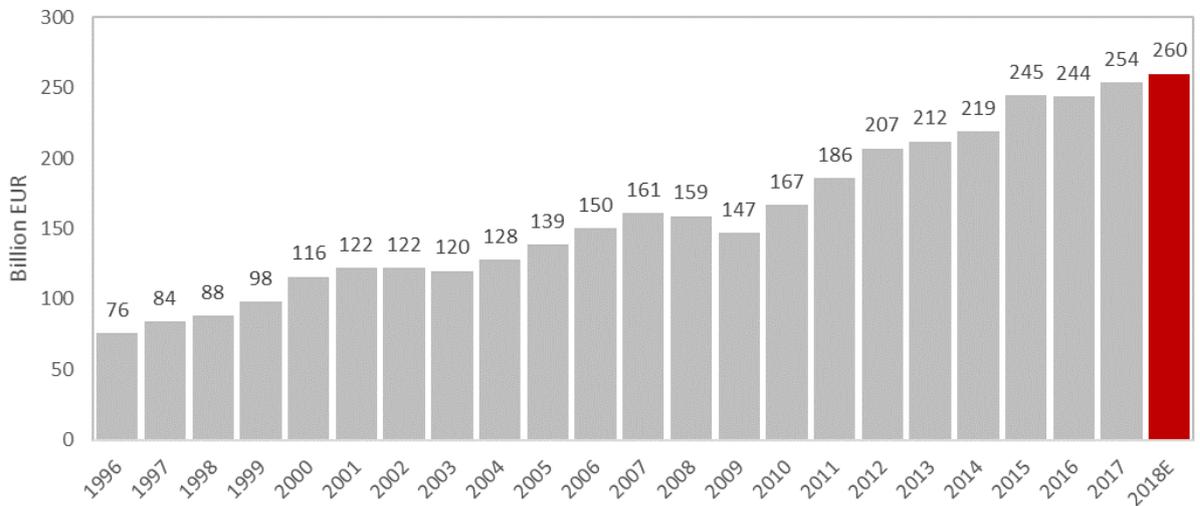


Figure 6: Personal luxury goods market size since 1996

[source: Altagamma 2018 Worldwide Luxury Market Monitor]

#### 1.2.4 Industry consolidation

As we have seen, two of the primary connotations of luxury are rarity and extra-ordinariness. Such characteristics limit the size of luxury manufacturers. Increasing size would mean increasing production volumes; this will, in turn, limit rarity and extra-ordinariness. Unlike most industries here size is less relevant and could have a negative impact, what matters most is the reputation and brand awareness. Luxury companies are generally small or medium-sized (SME) enterprises. That is why it is more difficult to enjoy economies of scale in this elitist industry for a solo brand. Big conglomerates still reach economies of scale through large brand portfolios made up of many small individual companies. Another common practice in the industry to drag down costs is subcontracting.

Deloitte Global Power of Luxury Goods report analyzes the top 100 companies in the PLG industry. Even though alongside well-established luxury brands like Hermes and Chanel also premium brands as PVH (owner of Tommy Hilfiger and Calvin Klein among others) were included, the average size in terms of sales was US\$ 2.47 billion. As a term of comparison in the same period, FY2017, GAP had net sales of US\$ 15.9 Billion<sup>7</sup>. Only in the last quarter of 2017 GAP net sales doubled the average top 100 luxury firm fiscal year results reaching US\$ 4.8 Billion.

The luxury industry is commonly regarded as being very concentrated, sometimes even called to be an oligopoly. Consolidation started in the 1990s with the emergence of larger groups like LVMH and is still going on. Takeover activity is very fervent in this industry. Recently also American firms entered in the run. For example, Michael Kors bought Versace, one of the most representative Italian designers' brands, for USD 2.1 billion in September 2018. A year earlier, July 2017, Coach acquired Kate spade for USD 2.4 billion.

According to the Deloitte study (Deloitte, 2019)<sup>8</sup>, the top 10 luxury goods companies by sales accounted for a market concentration of 48.2% in terms of sales and 52.8% in terms of total revenues. It is worth noting that this study is a proxy for the PLG market. The two differ mainly for three reasons:

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<sup>7</sup> GAP INC. Reports Fourth Quarter and Fiscal Year 2017 Results.

<sup>8</sup> *Global Powers of Luxury Goods*.

- Being a top 100 firm analysis, it does not consider many small luxury enterprises as Ermanno Scervino is.
- Some firms were not included lacking available data; many luxury firms are still privately held by the founder families and prefer not to disclose any information, like Goyard.
- As previously noted, some premium, not strictly luxury companies, have been included in Deloitte analysis.

### **1.2.5 Main players**

Over the years, the PLG industry concentrated around four poles. Now four big groups own more than 100 brands. These are Louis Vuitton Moët Hennessy (LVMH), Kering, Compagnie Financière Richemont and Swatch. The former two are French and are more focused on apparel and accessories, while the last two are Swiss and holds mainly jewelry and watches brands. These conglomerates are focused on the luxury industry and are both vertically and horizontally integrated. Vertical integration allows to better secure supplies and control quality, which is one of the critical aspects of the industry. Horizontal integration instead allows taking advantage of economies of scale, can provide growth and allows for diversification as luxury is a multi-industry concept.

Besides these four poles, there are two more that are often neglected when speaking about luxury. These are Estée Lauder and L'Oréal. Both are present in the 2018 top 10 luxury companies list made by Deloitte, respectively at the second and seventh place. Beauty luxury market cannot be ignored as, according to Bain Altagamma study, is worth EUR 56 billion in 2018. That is more than the luxury bags market, EUR 51 billion, and second only to apparel, EUR 60 billion, in the PLG breakdown.

Let us see them more closely. It is worth specifying that hereafter will be considered all the brands operated by a conglomerate without distinguishing between the owned and the licensed brands. For example, Cartier is owned by Richemont, but the eyewear is licensed (produced and marketed) by Kering.

## LVMH

The company was born in 1987 under the merger of the fashion house Louis Vuitton with Moët Hennessy, a company formed after the 1971 merger between the champagne producer Moët & Chandon and Hennessy, the cognac manufacturer. LVMH is listed on the Euronext Paris exchange. The firm is family run as Arnault Family Group holds 47,16% of shares and 63,27% of voting rights. Bernard Arnault is both Chairman and CEO of the group. It is the biggest conglomerate in the luxury industry, with a market capitalization of EUR 169,179 billion<sup>9</sup> a record 2018 revenues of EUR 46,826 billion and a portfolio of 72 brands.

These are divided into six categories (Table3): wines & spirits (23), fashion & leather goods (15), perfume & cosmetics (13), watches & jewelry (6), selective retailing (5) and other activities (10).

Personal luxury goods account for 61.22% of total revenues with the most significant contribution coming from fashion & leather goods division (38.41%), followed by perfumes & cosmetics (13.01%) and watches & jewelry (8.80%). The retail and spirits businesses also had a positive contribution to total revenues respectively of 29.14% and 10.98%. The only division with negative results has been other activities with negative revenues of EUR 633 million. It is also the most diversified division as it comprises control over some French media (Les Echos, Le Parisien and Radio Classique), Italian patisserie Cova, Dutch high-end yacht builder Royal Van Lent and others. Bulgari acquisition in 2011 also added hotel business to LVMH's portfolio as the Italian jewelry brand has a Hotel & Resorts division. The diversification in luxury hospitality is likely to increase its relevance for the French conglomerate after the recent acquisition of Belmond<sup>10</sup>, luxury hotel, and leisure company.

Wines and Spirits	5,143
Fashion and Leather Goods	18,455
Perfumes and Cosmetics	6,092
Watches and Jewelry	4,123
Selective Retailing	13,646
Other activities and eliminations	(633)
<b>Total</b>	<b>46,826</b>

Table 2: LVMH revenues in 2008

[source: LVMH documents financiers, 31 December 2018]

<sup>9</sup> All financial data hereafter is referred to Bloomberg as to 08/05/2019.

<sup>10</sup> <https://www.lvmh.com/news-documents/press-releases/lvmh-reaches-an-agreement-with-belmond-to-increase-its-presence-in-the-ultimate-hospitality-world/>

<b>Wines &amp; Spirits</b>	<b>Fashion &amp; Leathergoods</b>	<b>Perfums &amp; Cosmetics</b>	<b>Watches &amp; Jewelry</b>	<b>Selective Retailing</b>	<b>Other Activities</b>
Ao Yun	Berluti	Acqua di Parma	Bvlgari	DFS	Cheval blanc
Ardbeg	Celine	Benefit Cosmetics	Chaumet	La Grande Epicerie de Paris	Connaissance des Arts
Belvedere	Christian Dior	Fenty	Fred	Le Bon Marche Rive Gauche	Cova
Bodega Numanthia	Emilio Pucci	Fresh	Hublot	Sephora	Investir
Cape Mentelle	Fendi	Givenchy Parfumes	TAG Heuer	Starboard Cruise	Jardin d'Acclimatation
Chando	Givenchy	Guerlain	Zenith		La Samaritaine
Chateau	Kenzo	Kat Von D Beauty			Le Parisien
Cheval Blanc	Loewe	Kenzo Parfums			Les Echos
Chateau d'Yquem	Loro Piana	MaisonFrancis Kurkdjian			Radio Classique
Cheval des Andes	Louis Vuiton	Make Up For Ever			Royal Van Lent
Clos des Lambrays	Mark Jacobs	Mark Jacobs Beauty			
Clos 19	Moynat	Parfums Christian Dior			
Cloudy Bay	Nicholas Kirkwood	Parfumes Loewe			
Dom	Pink Shirtmaker				
Perignon	RIMOWA				
Glenmorangie					
Hennessy					
Krug					
Mercier					
Moet & Chandon					
Newton Vineyard					
Runart					
Terazas de los Andes					
Vueve					
Clicquot					
Volcan de mi Tierra					

Table 3: LVMH brand portfolio as to 13/05/2019

[source: lvmh.com]

## KERING

The company was founded in 1963 as Pinault S.A., since then it changed name several times and was known as PPR before becoming Kering in 2013. Same as LVMH also Kering is a French company listed on Euronext Paris. The firm initially traded wood before investing for the first time in luxury in 1999 with a 42% stake in Gucci. Through the Gucci deal, Pinault-Printemps-Redoute also acquired the brand Yves Saint Laurent. The company even experimented a sport and lifestyle portfolio with brands like Puma and Volcom. Recently Kering divested from these lower-end brands to focus only on luxury. As to 2019, Kering controls 12 brands divided into two major divisions: couture and leather goods (6) and watches and jewelry (6). In 2014 it was created Kering Eyewear Company to manage the eyewear segment, now it counts 15 brands.

<b>Couture &amp; Leathergoods</b>	<b>Watches &amp; Jewelry</b>	<b>Eyewear</b>
Gucci	Boucheron	Gucci
Yves Saint Laurent	Pomellato	Cartier
Bottega Veneta	DoDo	Saint Laurent
Balenciaga	Queelin	Balenciaga
Alexander McQueen	Ulysse Nardin	Bottega Veneta
Brioni	Girard-Perregaux	Alexander McQueen
		Stella McCartney
		Alaia
		Courreges
		Montblanc
		Brioni
		Boucheron
		Pomellato
		McQ
		Puma

*Table 4: Kering brand portfolio as to 13/05/2019*

*[Kering.com]*

The group has a market capitalization of EUR 65.110 billion and closed 2018, with total revenues of EUR 13.247 billion<sup>11</sup>. Contribution by Gucci amounted to 63% of total revenues, while the most relevant product category has been by far leather goods, accounting for 53% of group revenues.

Same as LVMH also Kering is family-owned and run, being Artémis, the holding company controlled by the Pinault family, the major shareholder with 40.9% of shares. Francois-Henry Pinault is both chairman and CEO of the company.

### **COMPAGNIE FINANCIERE RICHEMONT**

Richemont was founded in 1988 by the spin-off of the international assets owned by Rembrandt Group Limited of South Africa (now known as Remgro Limited). Established by Anton Rupert in the 1940s, Rembrandt Group mainly owned interests in the tobacco, financial services, wines and spirits, gold and diamond mining industries as well as the luxury goods investments that, along with the investment in Rothmans International, would form Richemont<sup>12</sup>.

The company owns 19 brands and divides its business into three segments: Jewellery Maisons (2), Specialist Watchmakers (8) and Others (9). The last category comprises firms from very different industries ranging from online distributors like YOOX Net-a-Porter Group to a high-end gunmaker Purdey and fashion houses like Chloe and Alaia. Jewellery Maisons are only two, Cartier and Van Cleef & Arpels, but they accounted for 59% of 2018 sales, which in total has been EUR 10,98 billion<sup>13</sup>. Specialist Watchmakers and Other businesses accounted for respectively 25% and 16% of the group's revenues. Richemont is listed on Six Swiss Exchange and has a capitalization of CHF 41,80 billion. The major shareholder is Compagnie Financiere Rupert, which holds 9.1 % of equity and 50% of voting rights. Also, in this case, a family member, Johann Rupert, is the chairman and he recently appointed as CEO Jerome Lambert.

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<sup>11</sup> Kering 2018 Activity Report.

<sup>12</sup> Richemont Dubai FZE Careers & Jobs (Dubai, UAE). <https://www.edarabia.com/richemont-dubai-fze-uae/>

<sup>13</sup> Richemont Annual Report and Accounts 2018

<b>Jewellery Maisons</b>	<b>Specialist Watchmakers</b>	<b>Other</b>
Cartier	A. Lange & Shone	Watchfinder & Co.
Van Cleef & Arples	Baume & Mercier	YOOX Net-a-Porter
	IWC Schaffhausen	Alfred Dunhill
	Jaeger-LeCoultre	Azzedine Alaia
	Officine Panerai	Chloé
	Piaget	Montblanc
	Roger Dubuis	Peter Millar
	Vacheron Costantin	Purdey
		Serapian

*Table 5: Richemont brand portfolio as to 13/05/2019*

*[source: Richemont.com]*

## **SWATCH**

The Swatch Group was established in 1983 as ASUAG/SSIH from the two financially troubled predecessor companies, ASUAG, and SSIH. It was taken private in 1985 by then-CEO Nicolas Hayek it was renamed SMH (Société de Microélectronique et d'Horlogerie) in 1986, and finally Swatch Group Ltd in 1998. As stated by the company, today the Swiss group offers watches in all price categories: luxury (7), high range (3), middle range (6) and basic range (2). Furthermore, the group is vertically integrated owning two retailer chains alongside with companies involved in the production and electronic systems. The group closed 2018 with net sales of CHF 8,47 billion<sup>14</sup>. Swatch is listed at Six Swiss Exchange with a market capitalization of CHF 15,95 billion. It is stated in the most recent group's annual report that: "As of 31 December 2018, the Hayek Pool, related parties, institutions, and persons control 61 662 277 registered shares and 11 715 bearer shares, totaling 39.8% (previous year 40.0%) of all the votes."

Two Hayek family members hold key corporate governance positions, Nayla Hayek is the chairman while Nick Hayek is the CEO.

<sup>14</sup> Swatch Group Annual Report 2018.

<b>Prestige &amp; Luxury</b>	<b>High-Range</b>	<b>Mid-Range</b>	<b>Basic Range</b>	<b>Retailers</b>
Breguet	Longines	Tissot	Swatch	Tourbillion
Harry Winston	Rado	Calvin Klein	Flik Flak	Hour Passion
Blancpain	Union Glassutte	Certina		
Glasshutte-Original		Mido		
Léon Hatot		Hamilton		
Jaquet-Droz		Balmain		
Omega				

*Table 6: Swatch Group brand portfolio as to 13/05/2019*

*[source: swatchgroup.com]*

## **ESTÉE LAUDER**

It is the only major luxury group coming from outside of Europe. Estée Lauder and her husband, Joseph, founded the company in New York in 1946, starting from four original beauty products. Now Estée Lauder Companies Inc. is one of the world's leading manufacturers and marketers of quality skin care, makeup, fragrance, and hair care products. The group is listed on NYSE with a market capitalization of USD 59,745 billion, manages more than 25 prestige brands, and had net sales of USD 13,68 billion in 2018<sup>15</sup>.

As to the governance, three family members are actively involved, William P. Lauder is executive chairman and director while both Leonard A. Lauder and Ronald S. Lauder are just directors. An external, to the family manager, Fabrizio Freda, is the CEO and President besides being also a director.

As stated on the company ownership profile, the Lauder family owns approximately 40 percent of the total common stock (through both Class A and Class B shares) and about 87 percent of the voting power.

<sup>15</sup> The Estée Lauder Companies 10-K 2018.



Figure 7: Estée Lauder brand portfolio and positioning as to 13/05/2019

[source: Estée Lauder 2018 10-K filing]

## L'ORÉAL

The business started in 1909 when Eugène Paul Louis Schueller developed a hair dye formula called Oréale. However, the company that we know now as L'Oréal was first registered in 1919 in France. Since then, it has made numerous acquisitions until becoming the world largest cosmetics company. The group manages many global and regional brands. The most relevant 49 brands are organized into four divisions: L'Oréal luxe (22), consumer products (12), professional products (13), and active cosmetics (6). Only in 2018 has been made five acquisitions and signed two licenses. The group closed 2018 with EUR 26.9 billion of net sales. L'Oréal Luxe division accounted for 34.8%<sup>16</sup> of such result performing net sales of EUR 10,33 billion. The company is listed on the Euronext Paris

<sup>16</sup> L'Oréal Annual Report 2018.

stock exchange and has a market capitalization of EUR 132,97 billion. Founders' family (consisting of Mrs. Françoise Bettencourt Meyers, Mr. Jean-Pierre Meyers, Mr. Jean-Victor Meyers, and Mr. Nicolas Meyers, succeeding Mrs. Liliane Bettencourt, and Téthys SAS.) is still the major shareholder with a stake of 33.14%. Three family members take part in the board of directors, but none of them covers leading positions. Jean-Paul Agon instead holds the chairman and CEO roles.

<b>L'Oréal Luxe</b>	<b>Consumer Products</b>	<b>Professional Products</b>	<b>Active Cosmetics</b>
Lancome	L'Oréal Paris	L'Oréal Professionnel	La Roche-Posay
Giorgio Armani	Garnier	Redken	Vichy
YSL Beaute	Maybelline New York	Matrix	Cerave
Biotherm	NYX	Biolage	Skinceuticals
Kiehl's	Essie	Kerastase	Roger & Gallet
Ralph Lauren	Niely	Pureology	Sanoflore
Shu Uemura	Dark and Lovely	Decleor	
Cacharel	Maixa	Shu Uemura art of hair	
Helena Rubinstein	Magic	Carita	
Clarisonic	Carol's Daughter	Pulp Riot	
Diesel	Stylenanda	Mizani	
Viktor & Rolf	Logocos Naturkosmetik	Baxter	
Yue Sai		Seed Phytonutrients	
Maison Margiela			
Urban decay			
Guy Laroche			
Paloma Picasso			
Atelier Cologne			
House 99			
IT Cosmetics			
Proenza Shouler			
Valentino			

*Table 7: L'Oréal brand portfolio as to 13/05/2019*

*[source: L'Oréal 2018 Annual report]*

## 1.2.6 Future trends in luxury M&A

Personal luxury goods market has been continuously growing through the last 20 years. That made it very attractive to the investors. Analysts predict the ascend is going to continue in the coming years. According to Bain & Company (Bain, 2018)<sup>17</sup>, the PLG industry worth EUR 260 billion in 2018 and is going to increase annually at a rate of 3% to 5% till reaching a global value of EUR 320-365 billion in 2025.

A survey by Deloitte<sup>18</sup> confirmed the high attractiveness of the segment to the investors. In fact, in the last two years, luxury has seen a considerable increase in M&A activity. In 2017 the PLG market recorded an increase by five deals compared to the previous year. In 2018 the increase more than doubled rising to count eleven deals. In the same year, the PLG accounted for 55% of total deals in the luxury and fashion segment.

Recently the average deal value of the transactions has decreased. Small targets (USD 0 to 50 million) accounted for 55% and 65% of all targets in 2017 and 2018 respectively. The deduction is that the continuous consolidation in F&L industry is moving investments toward smaller sized companies. Here (as the survey by Deloitte highlighted) investors plan to boost performance by implementing internationalization, performance improvement, and change management strategies. The focus on small companies pushed the average multiples upwards.

Another interesting statistic is the high interest in the industry by investment funds, mainly represented by venture capital and private equity funds. These were 53% of total acquirers in 2017 and 46% of total acquirers in 2018. They are mainly pushed by the potentially high internal rates of return of small-sized firms.

The luxury industry has always been a traditional one, focusing on heritage and craftsmanship. However, the environment is changing. Digitalization spread even to the most traditional businesses; disruptive technologies are breaking into luxury too. Expensive brick and mortar shops located in exclusive locations are not enough to sustain interest by customers anymore. On-line sales are continuously increasing year after year, highlighting the importance of digital experience (outside and inside the store). Besides the omnichannel approach, some brands have even started to use virtual

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<sup>17</sup> Luxury Worldwide Market Study Fall-Winter 2018

<sup>18</sup> Deloitte Fashion & Luxury Private Equity and Investor Survey 2019 – Global Report

models for their campaigns. Furthermore, CRM projects that require extensive big data analysis are a must-have nowadays.

Europe is the birthplace of luxury, and companies from the old continent have dominated the industry so far. Nonetheless, some competition has been recently arising from both the US and China. The former is home to many successful premium and entry-to-luxury companies such as Michael Kors and Coach. These were growing at a double rate as compared to traditional luxury companies<sup>19</sup>. In the attempt to trade up and diversify their portfolios they are now active in the PLG market for corporate control (as proved by their recent acquisitions).

While the US is frightening European luxury monopoly with strategic bidders, China does the same but with financial investors. The reason is simple. Chinese households account for a significant portion of the global luxury market. Moreover, this share is deemed to increase as the middle class is rising. The lack of home-grown brands pushes Chinese investors towards European brands. This phenomenon is happening also in the M&A market. Shandong Ruyi spent more than USD 4 billion on overseas acquisitions in the last years, gaining the control of brands like Gieves & Hawkes and Bally. Its chairman, Qiu Yafu, has expressed the desire to build China's first high-end fashion empire. Shandong Ruyi is not the only Chinese company actively investing in the PLG industry; other big investors like Fosun International and Gansu Gantai Holding are doing the same.

Besides the increasing competition to European companies, it is possible to assume how the M&A in the luxury industry is going to evolve in the coming few years:

- *Increase in the number of deals.* Half of the market is characterized by a myriad of small and medium family-owned firms with potentially high growth. From one side, the industry is continuing to perform well, and the outlook is positive. No wonder both strategical and financial investors are ready to bid. From the other side, many independent companies do not have the scale and are struggling to deliver growth. Salvatore Ferragamo, for instance, reported a drop in revenue in 1H 2018, falling to €673.7 million from €717.9 million in the same period the year before. Also, Tod's sales are shrinking in 2019 2Q compared to the previous year.

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<sup>19</sup> EY 2018 Luxury Goods Industry Factbook

Furthermore, the costs for internationalization, CRM programs, and enhancing digital experience can be prohibitive for smaller firms. On top of that, geopolitical instability and commercial policies are threatening the business. Therefore, many companies might choose to cut their losses and sell, with a rising number of acquirers to please them.

- *Decrease in the average value of the deals.* Given the current level of industry consolidation, and the tastes of financial investors, the number of small targets is destined to grow. Potentially keeping high and increasing average transaction multiples.
- *Investment in tech start-ups.* Disruptive technologies are changing the way companies interact with and target their customers. It is reasonable to expect luxury companies seeking digital start-up companies to exploit synergies. This logic can be recognized in the YOOX-Net-a-Porter and Italianouch acquisitions by Richemont and Tod's

### **1.2.7 Hypothesis development**

The M&A market is very fervent in the luxury industry. As discussed, according to the few pieces of literature on the topic, such deals are beneficial to bidders. Konigs and Schiereck (2008), commented as follows the results of their study on luxury goods: “Positive announcement effects of M&A efforts aiming at the enlargement of market power and brand portfolios as well as the amelioration of firm efficiency are largely accordable with other authors’ conclusions on M&A studies respecting the ordinary consumer goods retail segment. “

Personal luxury goods are a sub-category of luxury goods, and therefore it is reasonable to expect similar results. Moreover, the results of Konigs and Shiereck (2008), were highly determined by the PLGs. They excluded luxury investment goods such as cars, private jets, and yachts as well as luxury services such as traveling and shelter. Instead, they considered only six luxury sector categories: Designer Fashion and Haute Couture, Leather and Accessories, Jewelry, Perfume and Cosmetics, Crystals and Porcelain as well as Champagne, Wines, and Spirits. Only the last two categories cannot be conducted to PLGs.

Luxury companies cannot rely on size to reach economies of scale as two of the *sine qua non* conditions for luxury is rarity and extraordinariness. By definition, anything mass-produced is neither rare nor extraordinary. The agglomeration of large brand portfolios can be interpreted as an alternative way to reach higher levels of cost-efficiency. Luxury conglomerates that followed a strategy of acquisitions (LVMH, L'Oréal, Kering, Richemont, and Swatch) experienced remarkable growth in stock price and market capitalization over the past decade. The central hypothesis of the elaborate is, therefore stated as follows:

*H: Luxury acquirers experience positive abnormal returns at the M&A announcement date*

## CHAPTER II

# DOES M&A CREATE VALUE FOR LUXURY COMPANIES?

### 2.1 THE EMPIRICAL STUDY

#### 2.1.1 Introduction

Having analyzed the concepts of M&A and luxury, it is time to see how mergers and acquisitions performed in this industry. Did the luxury acquirers manage to create value through acquisitions? Did they outperform or underperform the average?

#### 2.1.2 Methodology

As previously discussed, there are four different methodologies to study M&As: event studies, accounting studies, survey of executives, and clinical studies. The last three options are hard to implement in the luxury industry. It is almost impossible to personally contact CEOs or CFOs to submit them a survey on every M&A transaction they executed. Clinical studies require full disclosure on the transactions to be analyzed. That rarely happens in the luxury industry as most of the target companies are private.

Furthermore, the results of a stand-alone clinical study could not be generalized for the entire population. Accounting studies do not directly measure shareholders wealth. Even though, they would be interesting to conduct, to see if the accounting metrics of companies that followed an acquisition strategy overperformed or underperformed peers that concentrated only on internal growth. However, groups that followed external growth strategies, acquiring multiple companies, do not disclose detailed information through consolidated financial statements. Accounting data are grouped by divisions.

As divisions grow in size and number of firms, the marginal change in performance due to a new acquisition becomes smaller and harder to isolate from other division events. Return event studies quantify an events economic impact in so-called abnormal (or excess) returns; these will be described

soon. The event study, being based on market returns, is a forward-looking, direct measure of value creation for the investors. Thanks to the availability of data for listed acquirers, it is the most appropriate methodology to investigate M&A value creation in the luxury industry.

As it has been already discussed, finance theory suggests that capital markets reflect all available information about firms in the firms' stock prices. Given this basic premise, one can study how a particular event changes a firm's prospects by quantifying the impact of the event on the firm's stock. The change is quantified deducting the returns that would have been realized if the analyzed event would not have taken place (normal, or expected, returns) from the actual returns of the stocks. While the actual returns can be empirically observed, the normal returns need to be estimated. Let  $R_{i,t}$  and  $A_{i,t}$  be respectively the observed and the excess return for security  $i$  at day  $t$ . There are four different ways to determine  $A_{i,t}$ :

- 1) *Mean adjusted returns*:  $A_{i,t} = R_{i,t} - \bar{R}_i$ , where  $\bar{R}_i$  is the simple average of security  $i$ 's daily returns in the estimation period.
- 2) *Market adjusted returns*:  $A_{i,t} = R_{i,t} - R_{m,t}$ , where  $R_{m,t}$  is the return on the market for day  $t$ .
- 3) *Market model adjusted returns*:  $A_{i,t} = R_{i,t} - \hat{\alpha}_i - \hat{\beta}_{m,i}$ , where  $\hat{\alpha}_i$  and  $\hat{\beta}_{m,i}$  are the ordinary least parameters from the estimation value.

In this study, it has been used the last model; it is considered to be the most frequent and accredited practice to obtain expected returns (Brown and Warner, 1980).

It is worth noticing that event studies are joint tests, as well as the presence of abnormal returns; it is also tested the market efficiency. Systematically non-zero excess returns that persist after a particular type of corporate event would be inconsistent with market efficiency and imply a profitable trading rule.

The methodology used to calculate, and test abnormal returns in the short horizon, is the one described in Brown and Warner, 1985. Further details on the event studies using daily returns are discussed in Appendix 1. Long-horizon abnormal returns were interpreted accordingly to Kothari and Warner (1997),(2004). Finally, the distribution of both short and long-horizon abnormal returns was analyzed, taking into account Hazelkorn, Zenner, and Shivdasani (2004).

The last-mentioned study did not include statistical testing. However, it is straightforward and does not stop on the mere average or median value to drive conclusions. Differently from many studies, their investigation considers mainly the distribution of results and the analysis of which factors matter and impact on M&A value creation. They considered a large sample of acquisitions made by U.S. firms from January 1, 1990, to January 1, 2002, analyzing in total 1547 transactions.

This study, on the contrary, has been performed only on the acquisitions made by European firms involved in the production, branding, and distribution of luxury personal goods considering the past 11 years. Only the companies listed on European stock markets were covered.

The sample includes all the completed M&A transactions for which was disclosed at least the price and has been announced between January 1, 2008, and January 1, 2019. In all, were analyzed 31 transactions without any limitations on the type of target companies.

Even if the sample is totally different, the focus of the analysis is the same. Namely, to investigate whether acquiring firms create value for their shareholders as a result of an M&A transaction.

To do so, considering the announcement day, has been calculated excess stock returns over different time horizons. As a first step, to calculate excess stock returns, one needs to collect the adjusted closing stock and market prices over the period. The adjusted returns isolate the effect of dividends on the stock returns allowing to consider returns due only to trading. In order to make sure the stock is being compared to the right benchmark; it should have a high R-squared value in relation to it. Such statistical measure shows the portion of a security's historical price movements that could be explained by movements in a benchmark index.

In this particular case, every firm, according to its market capitalization, was linked to the corresponding national stock index. LVMH is a French blue-chip stock and was linked to CAC 40, Tod's is an Italian mid-cap firm and was linked to FTSE Italia Mid Cap Index etcetera. Small and mid-sized firms showed a higher significance and better fit when regressed on their size index rather than on the main national index<sup>20</sup>. The adjusted closing prices were collected from Bloomberg

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<sup>20</sup> The regression of mid and small stock's returns against the national blue-chip index were still statistically significant (as generally these indexes are considered to well represent national market movements) but presented lower values or  $R^2$  as compared to regressions against 'same cap' index.

database to calculate daily returns. These were used to regress the stock's beta and alfa during the regression period. The regression period started 249 days prior to the event and finished 31 days before the event. Stock's beta is the slope of the OLS regression line, while stock's alpha is the intercept, as follows:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t}$$

Once calculated the slope and the intercept for every transaction, given any specific date market return, it is possible to obtain the expected stock's return for that day as follows:

$$NR_{i,t} = \alpha_{i,t} + \beta_{i,t} R_{m,t}$$

The market adjusted excess return is then the difference between the actual stock return ( $R_{i,t}$ ) and the estimated normal returns on a specific date:

$$AR_{i,t} = R_{i,t} - NR_{i,t} = R_{i,t} - \alpha_{i,t} - \beta_{i,t} R_{m,t}$$

Excess sock returns can also be calculated over a period of time, not only for a specific day. To measure the total impact on a single stock of an event over a particular time span, one can add up individual abnormal returns to create a cumulative excess return over a  $T_1$ - $T_2$  period, as shown below:

$$CAR_{i,(T_1,T_2)} = \sum_{t=T_1}^{t=T_2} AR_{i,t}$$

Where the abbreviation stands for Cumulative Abnormal Return. However, the goal of the study is not to drive conclusions over a single stock abnormal return but the whole sample of stocks. To do so in a sample event study like this, that holds multiple observations of individual event types (acquisitions), one can further calculate the cross-sectional average abnormal returns (AAR). It consists merely of averaging every abnormal stock return for a defined day  $t$ :

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{i,t}$$

Where N represents the number of stocks. Same as before we can sum average abnormal returns to derive cumulative average abnormal returns for a pre-determined day or period. The same result can be obtained by averaging the single stock cumulative abnormal returns in the T<sub>1</sub>-T<sub>2</sub> period, over the sample:

$$CAAR_{(T_1, T_2)} = \frac{1}{N} \sum_{i=1}^N CAR_{i, (T_1, T_2)}$$

The chosen periods surrounding the initial announcement usually are reasonably short. Here have been considered several periods; different short-term periods and two long terms. Several lengths surrounding Day 0 were considered. A 5-day window, starting two days before and ending two days after the announcement captures market reaction to the deal. As important details often become public after the initial announcement it has also been considered an 11- and a 21-day window, both taken symmetrically around the announcement day. To check eventual anticipation to the deal were also analyzed the returns occurring five and ten days prior and excluding Day 0.

In the same way has been considered the periods of five- and ten-days subsequent Day 0, purely to verify the reaction to the deal. The long-run perspective has also been analyzed to consider execution and post-merger integration as both factors are critical to the success of a transaction. More precisely excess returns have been calculated over one-year and two-years horizons following the transaction announcement.

Differently, from short term excess returns, the long-term ones have been calculated relative to an index of companies in the acquirer industry rather than the national index. That to check whether the companies involved in M&A performed better than their industry or not.

### **2.1.3 Assumptions**

Every model comprises some assumptions, and so event studies do. As for the methodological assumptions, the following three are the main:

1. The stock returns in the event window of the acquisition accurately reflect the economic impact of the event (capital market efficiency). To this purpose, the stock must be traded

frequently as infrequent trading suggests that the capital market might not be efficient, questioning the validity of the stock price reaction.

For the same reason also the reference index must be liquid and show enough trading volume. To this merit, in the sample, there are few small and mid-cap stocks. However, as previously analyzed, Brown and Warner (1985) concluded that trading frequency is not a significant concern in event studies. There is evidence that shares traded relatively infrequently have downward biased beta estimates, while those traded relatively frequently have beta estimates biased upward.

2. The event is unexpected. Thus, before the announcement day, it has not yet been factored into the stock price. A study by Pinkerton and Keown (1981) showed that the cumulative abnormal returns of the target company jump dramatically on the day the news becomes public. However, starting from 15 days before the announcement day is evident, a pattern of increasing returns suggesting that the event was not that unexpected after all.

If information about the event has leaked to capital markets before the event window, then the cumulative average return of the event is not correct. A certain part, or the totality, of the event, has already been priced into the stock valuation during the estimation window. Transactions considered in this study are mainly private and have not even been rumored before the announcing day. Therefore, it is reasonable assuming the non-expectancy of the event.

3. There are no other events during the event window, which could be responsible for the stock price change. However, in extensive sample studies, the adverse effects of confounding events may be sufficiently 'corrected' by creating mean values over large numbers of observations.

#### **2.1.4 Sample Data and Results**

The data about M&A deals were collected from Zephyr and double-checked with Eikon Thomson Reuters. The research of relevant M&As on Zephyr started from a number of 335.195 transactions made by listed acquirers. Of these, only 179.216 were strictly mergers or acquisitions. The number of deals decreased to 146.756 when filtering for the time period and deal status and dropped to 23.430

after selecting only European acquirers. Filters on the business descriptions and sector reduced the number of relevant deals to 74. Details of the research on Zephyr are showed in Table 8. However, most of the transactions were discarded because of a complete lack of disclosure besides the name of the involved parties and the announcement date. Table 9 shows the 31 selected transactions for the analysis.

**Product name** Zephyr  
**Software version** 30.0

Filters	Step result	Search result
1. Listed/Unlisted/Delisted companies: listed acquiror	335,195	335,195
2. Deal type: Acquisition, Merger	704,619	179,216
3. Current deal status: Announced, Completed, Pending	1,661,880	146,756
4. Time period: on and after 01/01/2008 and up to and including 01/01/2019 (completed-confirmed, completed-assumed, announced)	1,169,148	102,862
5. World regions: Western Europe, European Union enlarged (28), European Union, Euro-Area, Scandinavia, Baltic States, Balkan States (Acquiror)	505,061	23,430
6. Business description, english trade description, overview, industry descriptions: AnyWords("luxury") AND NoWords ("cars", "hotels") (Acquiror)	4,985	196
7. Major sectors: Textiles, wearing apparel, leather, Wholesale & retail trade (Acquiror)	78,484	74
	<b>TOTAL</b>	<b>74</b>

*Table 8: Details of the Zephyr research [source: Author]*

The PLG industry is not an official industry and therefore has no industry code to rely on. Instead of the industry code business description and major sectors filtering were used to circumscribe the scope of the bidders. The limited sample size was foreseeable as most of the companies involved in luxury are private, and so are most of the transactions. Data about M&As cannot be handpicked as they are mostly stored in databases such as Zephyr. Luckily every bidder, target, and the transaction have a description, making the filtering by keywords reliable.

Identifying the event date is not that easy as it could appear at first glance, especially in the analysis of M&A transactions. Usually, there are initial rumors about the transaction which are then typically followed by an official announcement and a closing of the transaction. On each of these events, information is released, posing the question of which date represents the correct event date to be analyzed. Scholars investigating this issue found the information content of the first official announcement being highest and therefore representing the correct event date in the context of M&A studies (Dodd, 1980). Thus, as Day 0 date, it has been considered the date of the first official press release made by the acquirer about the offer, negotiations or directly the completion of the deal.

N	Event Date	Acquirer	Country	Stock Index	Target	Country	Transaction Value (MLN EUR)
1	14/12/2018	LVMH	FRA	CAC 40	Belmond	ENG	2800
2	03/08/2018	Tod's	ITA	ITMC	Italiantouch Srl	ITA	25
3	02/05/2018	L'Oreal	FRA	CAC 40	Nanda	KOR	454
4	22/01/2018	Richemont	CH	SMI	YNAP	ITA	2602
5	25/04/2017	LVMH	FRA	CAC 40	Dior Couture	FRA	10000
6	31/03/2017	Brunello Cucinelli	ITA	ITMC	Brunello Kuchinelli Rus	RUS	7
7	10/01/2017	L'Oreal	FRA	CAC 40	CeraVe & AF& AMBI	USA	1200
8	04/10/2016	LVMH	FRA	CAC 40	RIMOWA	GER	640
9	22/07/2016	L'Oreal	FRA	CAC 40	IT Cosmetics	USA	1078
10	22/11/2015	Tod's	ITA	ITMC	Roger Vivier	FRA	415
11	19/03/2015	Interparfums	FRA	CS90	Rochas (P&G)	FRA	98
12	30/07/2014	Kering	FRA	CAC 40	Ulysse Nardin	CH	650
13	18/10/2013	L'Oreal	FRA	CAC 40	Carita & Decleor (Shiseido)	FRA	230
14	15/08/2013	L'Oreal	FRA	CAC 40	Magic Holdings	CHN	615
15	08/07/2013	LVMH	FRA	CAC 40	Loro Piana	ITA	2000
16	27/06/2013	LVMH	FRA	CAC 40	Cova	ITA	33
17	24/04/2013	Kering	FRA	CAC 40	Pomellato	ITA	336
18	14/01/2013	Swatch	CH	SMI	Harry Winston	USA	778
19	20/12/2012	Salvatore Ferragamo	ITA	FTSE MIB	SF Asia	SGP,THA, MYS,KOR	25
20	11/12/2012	Kering	FRA	CAC 40	Abbey Reinsurance	LUX	35
21	26/11/2012	L'Oreal	FRA	CAC 40	Urban Decay	USA	322
22	26/04/2012	L'Oreal	FRA	CAC 40	Cadum	FRA	200
23	08/11/2011	Kering	FRA	CAC 40	Brioni	ITA	350
24	17/08/2011	Van de Velde	BEL	BELS	Rigby & Peller	ENG	9
25	02/05/2011	Kering	FRA	CAC 40	Volcom	USA	362
26	07/03/2011	LVMH	FRA	CAC 40	Bulgari	ITA	3700
27	16/07/2010	Burberry	ENG	FTSE 100	Burberry Asia	CHN	90
28	01/04/2010	Richemont	CH	SMI	NAP	ENG	281
29	20/06/2008	Van de Velde	BEL	BELS	Eurocorset SA	SPA	15
30	30/04/2008	L'Oreal	FRA	CAC 40	YSL Beaute	FRA	1150
31	13/02/2008	LVMH	FRA	CAC 40	Bodega Numanthia	SPA	27

Table 9: Sample transaction data [source: Author]

All the transactions involved the acquisition of a majority stake except the LVMH-Dior case, that was a double transaction including an increase in an already existing majority stake plus the acquisition of control over Dior Couture. Other three atypical transactions in the sample are the one made by Brunello Cucinelli, Burberry, and Salvatore Ferragamo. They acquired their distributors in Asia or Russia; it is a clear case of vertical integration. Even if these transactions were not among the most sizable, they represented a strategical change in key markets that could have a significant impact on investments and both short- and long-term cash flows.

2013 has been the year with the highest number of deals (6), accounting for almost 20% of the sample. There have also been two drops in merger activity, one in 2009 and one in 2014. Both happened in the aftermath of an economic slowdown in Europe, namely the sub-prime crisis in 2007/8 and the European sovereign debt crisis which lasted till 2012/3.

The most active acquirers have been the French conglomerates L'Oréal, LVMH, and Kering with respectively eight (26%), seven (23%) and five (16%) acquisitions. In total, French acquirers executed 68% of the transactions accounting for 86% of the value. The total deals' value amounts to EUR 30,5 billion. LVMH accounted for 62.90% of it, L'Oréal for 17.19%, Richemont for 9.44%, and Kering for 5.68%. The biggest deal was the Dior Couture acquisition by Mr. Arnault's holding; it worth EUR 10 billion and represents almost 1/3 of the total deals' value.

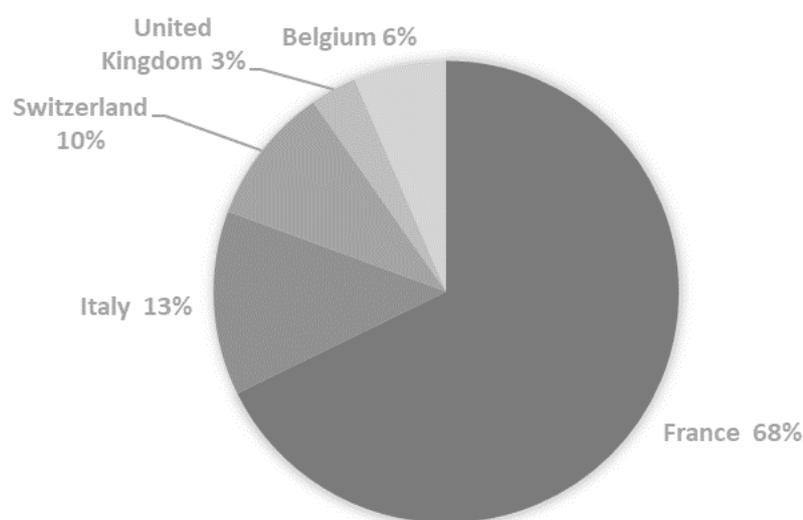


Figure 8: Acquirers by country [source: Author]

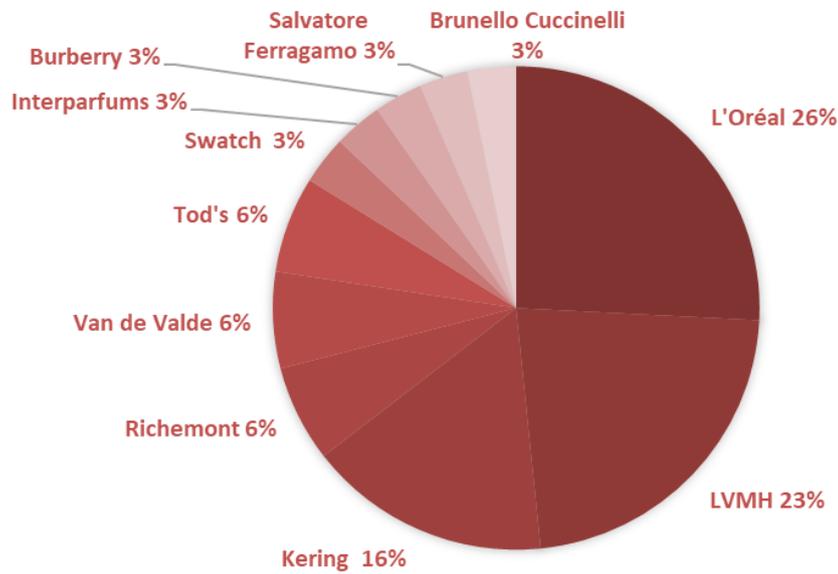


Figure 9: Proportion of sample acquisitions by acquirer [source: Author]

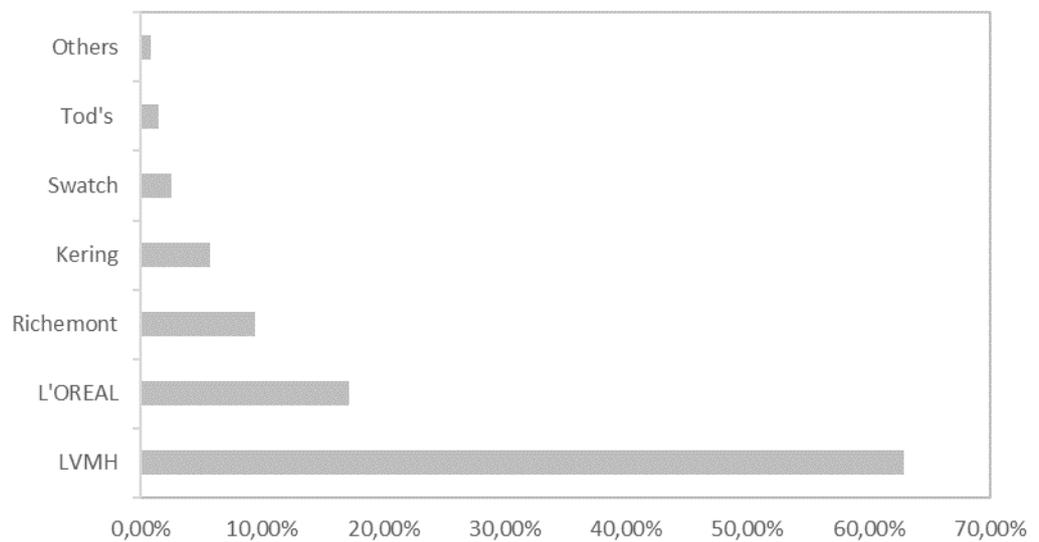


Figure 10: Transactions value break down by acquirer [source: Author]

Not surprisingly, most of the target companies were European (71%) with Italian (23%) and French (19%) firms being the most appetible. Acquisitions in the USA and Asian markets were made mainly by L'Oréal to increase market penetration.

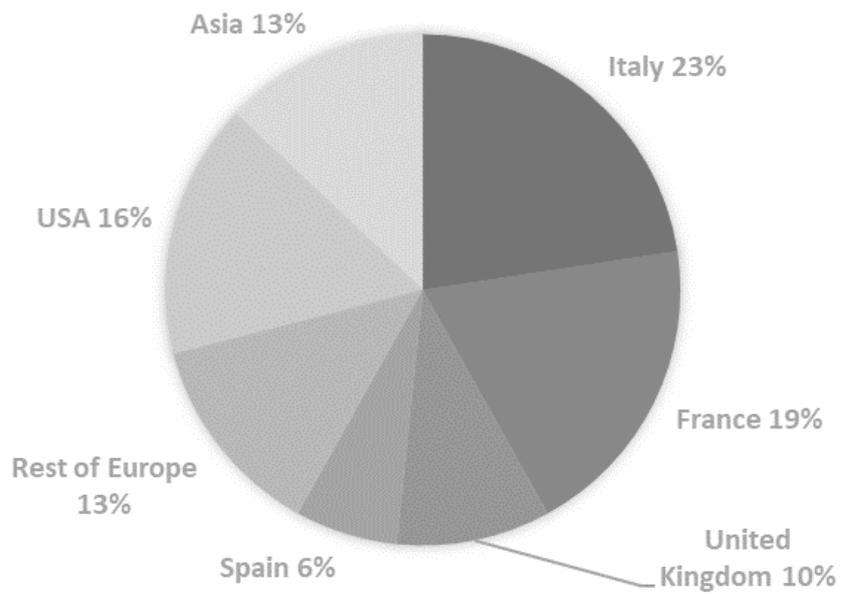


Figure 11: Target companies by country [source: Author]

European targets retained most of the total deal's value (84%), led again by France and Italy accounting respectively for 40% and 30% of the total.

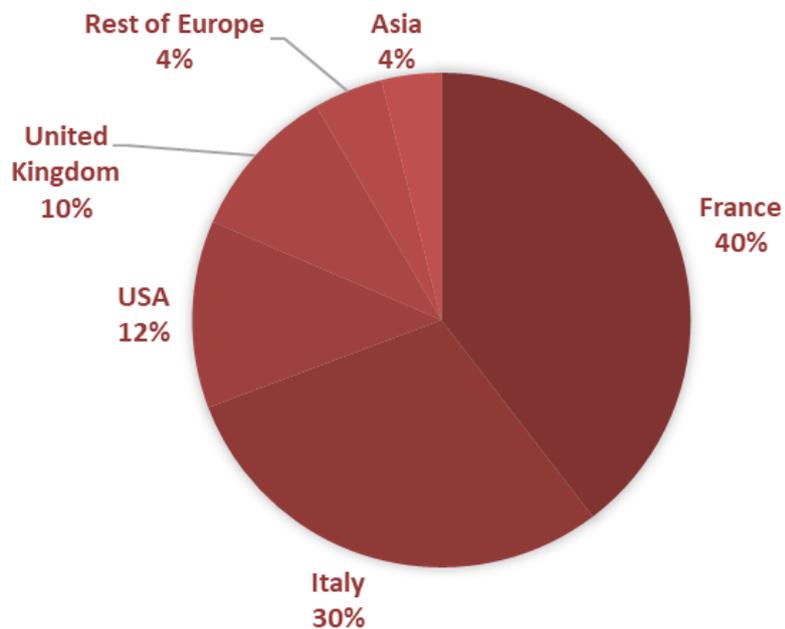


Figure 12: Total deal value by target country [source: Author]

## SHORT TERM ABNORMAL RETURNS

Table 10 shows the results of the linear regressions for every transaction where index returns are taken as the independent variable, while stock returns represent the dependent variable. Every acquirer's stock returns have been regressed on the returns of the national index they make part of. In this way, for every transaction, it has been obtained stock betas and alphas with relative values of statistical significance and R-squared.

The average abnormal return on Day 0 is +0.78%. More than 70% of transactions had a positive reaction on the announcement day. However, the coefficient of variability was high, 1.94. The best reaction was to the only deal made by Swatch group in the sample, its acquisition of the American diamond jewelry brand Harry Winston on Jan 14, 2013, has been welcomed by the market with a stunning +4.19% over the expected return. While the worst market reaction was to the more recent acquisition of the Korean beauty brand Nanda by L'Oréal, with a negative excess return of -1.83%.

All the betas are statistically significant. Also, as expected, they are quite high. The average and the median beta are respectively 0.90, and 0.88, values lower than one are reasonable as luxury goods are often classified as non-cyclical goods. However, betas vary widely across the sample with a maximum value of 1.6 and a minimum value of 0.3.

In particular, it can be easily noticed that betas of mid and small-cap firms like Tod's, Brunello Cucinelli, Interparfums, and Van de Velde tend to be smaller than the rest of the sample. Mainly three factors that can affect such a result:

- 1) Lower levels of *leverage* by small firms can influence the value of beta.
- 2) *Niche market*. Firms like Brunello Cucinelli operate in a niche market. These markets tend to be more stable<sup>21</sup> in demand, making in the result company's performance less vulnerable to general market movements.

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<sup>21</sup> As stated in Cucinelli's consolidated financial statements at Dec. 31, 2018: "The Group carries out *a business* which although *not subject to significant seasonal or cyclical trends* in terms of total annual sales during the course of the year suffers from a lack of perfect homogeneity in the various quarters in terms of the flow of revenues and the costs deriving mainly from its industrial activities

N	Target	AR0	$\beta$ ST	T-stat	$\alpha$ ST	T-stat	R2	CAR(-2;+2)	CAR(-10;+10)
1	Belmond	-0,29%	1,49	18,28	0,09%	1,28	0,61	2,28%	7,67%
2	Italianouch Srl	0,51%	0,55	5,78	-0,02%	-0,30	0,13	12,02%	13,56%
3	Nanda	-1,83%	0,99	14,75	-0,01%	-0,20	0,50	2,26%	3,14%
4	YNAP	-1,76%	0,92	8,66	0,01%	0,23	0,26	-1,49%	1,92%
5	Dior Couture	3,69%	0,94	15,91	0,09%	1,35	0,54	4,66%	6,01%
6	Brunello Kuchinelli Rus	0,10%	0,76	9,85	0,00%	0,89	0,31	0,63%	1,02%
7	CeraVe & AF& AMBI (Valeant)	-0,21%	0,66	14,36	0,03%	0,49	0,49	0,41%	-1,19%
8	RIMOWA	1,88%	0,99	19,77	0,03%	0,44	0,64	1,88%	7,86%
9	IT Cosmetics	0,54%	0,93	22,10	0,05%	0,82	0,69	0,59%	-7,71%
10	Roger Vivier	0,23%	0,81	9,30	-0,01%	-0,12	0,29	-0,83%	-5,14%
11	Rochas (P&G)	1,34%	1,04	6,03	0,02%	0,17	0,14	2,42%	8,39%
12	Ulysse Nardin	-1,13%	0,69	7,41	-0,06%	-0,79	0,20	7,17%	3,19%
13	Carita & Decleor (Shiseido)	2,48%	0,95	16,58	0,06%	0,94	0,56	3,04%	-4,15%
14	Magic Holdings	0,19%	0,92	16,54	0,09%	1,38	0,56	-0,69%	-4,49%
15	Loro Piana	1,18%	0,96	18,78	-0,01%	-0,22	0,62	2,50%	1,54%
16	Cova	0,11%	0,98	18,75	-0,03%	-0,45	0,62	2,21%	3,30%
17	Pomellato	1,63%	0,75	11,75	0,11%	1,35	0,39	-3,10%	-3,23%
18	Harry Winston	4,19%	1,61	13,38	0,01%	0,13	0,45	4,30%	7,47%
19	SF Asia	0,33%	0,67	8,63	0,23%	1,56	0,26	-1,86%	-7,26%
20	Abbey Reinsurance	-0,97%	0,79	13,36	0,07%	0,91	0,45	-1,10%	-3,79%
21	Urban Decay	0,18%	0,64	13,96	0,08%	1,27	0,47	0,64%	1,66%
22	Cadum	0,26%	0,54	18,01	0,05%	0,93	0,60	1,36%	4,45%
23	Brioni	1,25%	0,82	16,61	0,07%	0,89	0,56	1,19%	5,63%
24	Rigby & Peller	-0,04%	0,35	2,13	0,06%	0,84	0,02	-2,96%	6,17%
25	Volcom	-0,16%	0,85	13,46	-0,01%	-0,07	0,46	2,18%	7,89%
26	Bulgari	1,86%	0,99	20,69	0,12%	1,70	0,66	1,96%	-2,64%
27	Burberry Asia	2,14%	1,16	11,63	0,17%	1,52	0,38	2,26%	-0,38%
28	NAP	1,41%	1,60	13,44	0,10%	0,86	0,46	0,34%	-2,37%
29	Eurocorset SA	2,63%	0,81	6,02	-0,02%	-0,26	0,14	4,25%	0,99%
30	YSL Beaute	0,80%	0,88	14,60	0,08%	0,92	0,50	2,43%	-6,11%
31	Bodega Numanthia	-0,04%	0,86	22,49	-0,01%	-0,19	0,70	0,07%	0,54%

Table 10: Short-term abnormal returns [source: Author]

- 3) International footprint matters. For example, only 16% of Cucinelli's revenues<sup>22</sup> are generated in the country of origin. Therefore, the impact of the Italian market on the Group's performance is not that high at all.
- 4) *Trading frequency*. There is evidence that shares traded relatively infrequently, as may be the case of mid and small-cap companies, have downward biased beta estimates, while those traded relatively frequently have beta estimates biased upward.

Contrary to the slope, all the alphas, besides being of negligible size, are not statistically significant. Meaning that, accordingly to random walk theory, no stock systematically underperformed or overperformed the market.

The distribution of R-squared is similar to the distribution of betas. The average and median values of the goodness of fit are close to each other, being respectively 44.12% and 47.45%. Nonetheless, the variation is wide; the coefficient of variation is 0.42. In this merit, there is a sizable difference between large and small stocks. While the former shows high R-squared, up to 70%; the latter has a coefficient of determination lower than 20%. Both statistical significance and goodness of fit seem to be positively related to the market capitalization; suggesting that the market model may be not adequate to capture the systematic risk of small and less frequently traded stocks. It is worth noting that the average R-squared on daily returns in Brown and Warner (1985) was only 10%.

<b>Parameter</b>	<b>Average</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	<b>CV</b>
<b>AR<sub>0</sub></b>	0.73%	0.33%	4.19%	-1.83%	1.94
<b>β</b>	0.90	0.88	1.61	0.35	0.31
<b>T-stat</b>	13.65	13.96	22.49	2.13	0.38
<b>α</b>	0.00	0.00	0.00	0.00	1.35
<b>T-stat</b>	0.59	0.84	1.70	-0.07	1.18
<b>R<sup>2</sup></b>	44.12%	47.45%	70.07%	2.06%	0.42
<b>CAR<sub>(-2,+2)</sub></b>	1.65%	1.88%	12.02%	-3.10%	1.79
<b>CAR<sub>(-10,+10)</sub></b>	1.42%	1.54%	-13.56%	-7.71%	3.76

*Table 11: Short-term market model regression results [source: Author]*

<sup>22</sup> Group's consolidated financial statements at Dec. 31, 2018

Very interesting are also the properties of daily performance measures for individual stocks. In the before-mentioned study, Brown and Warner calculated different parameter estimates based on estimation period excess returns. For each parameter, they reported the mean of 12.500 estimates. The data about the distribution of abnormal sample returns regarding mean, standard deviation, skewness, and kurtosis showed a clear departure from normality.

One would expect that the sample considered in this study would deviate even more from normality. The sample here considered is much smaller, and it also comprises some small and mid-cap stocks. Surprisingly, all the mean estimates assumed values much closer to normality than expected. The estimates were much more similar, except the standard deviation, to the cross-sectional averages over the 250 samples made up each of 50 randomly selected stocks than to the simple average of 12.500 stocks. In Table 12, the results are compared:

<b>Estimate</b>	<b>B&amp;W sample wide means</b>	<b>B&amp;W cross-sectional means</b>	<b>Europe PLG sample means</b>
<b>Mean</b>	0.0000	-0.0001	0.0000
<b>Standard Deviation</b>	0.0253	0.0038	0.0120
<b>Skewness</b>	1.01	0.10	0.23
<b>Kurtosis</b>	6.80	3.10	2.95

*Table 12: Data distribution comparison with Brown and Warner 1985 study [source: Author]*

The high goodness of fit and closeness to the normal distribution of excess returns increases the confidence and reliability in using a parametric statistical test to check the significance of results.

Figure 13 shows acquirer's cumulative average excess stock returns in the proximity of the announcement date. Starting from 30 days prior to the announcement (Day 0) and ending ten days afterward.

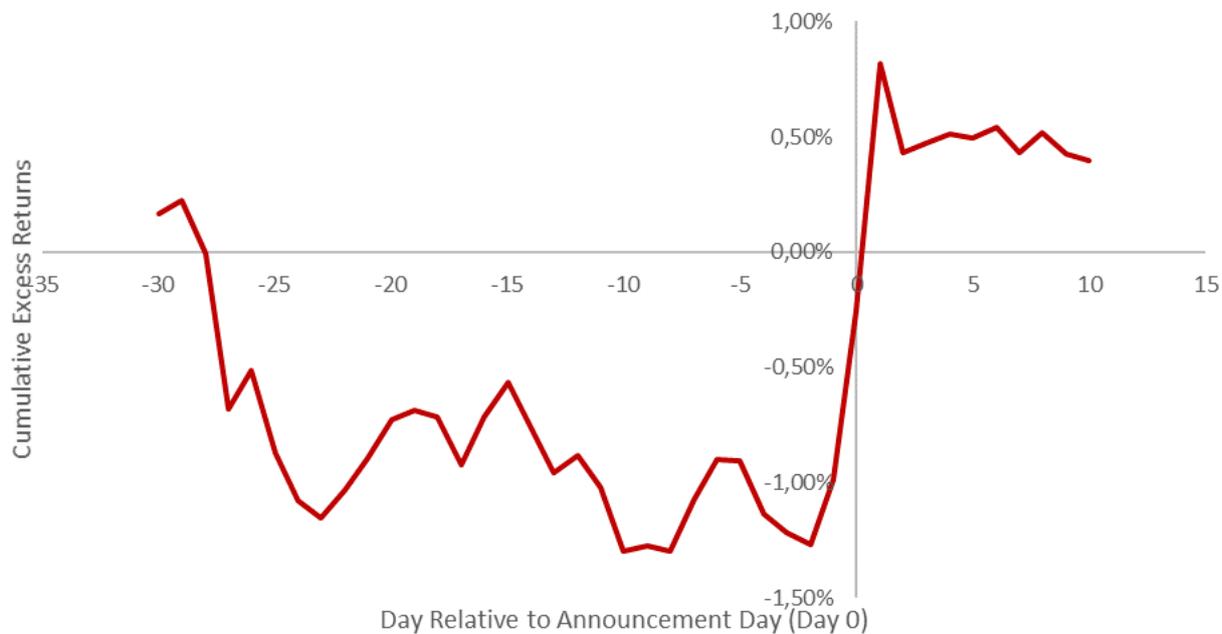


Figure 13: Average cumulative excess acquiror stock returns relative to announcement date of M&A transactions (-30;+10) [source: Author]

It is interesting to note that this result is exactly opposite to the one obtained by Hazelkorn et al. (2004) on a large sample of US acquirers. In his study, the average cumulative excess returns were slightly positive and close to zero before the announcement date. After the announcement day, in the following ten days, the return dropped to -1%. The pattern showed in Figure 13 is reversed, before Day 0, the average cumulative excess returns are negative, oscillating roughly between -0.50 % and -1.25%. After Day 0 the returns goes suddenly up by +2% and seems to stabilize at the value close to 0.5% a few days after the event took place. Due to higher negative returns before the announcement date, both average and median returns are slightly negative (as found by Hazelkorn et al.) considering 5, 11, and 21-days windows. It seems to confirm that the typical M&A announcement had a slightly negative impact on the acquirer's stock price over the short window around the initial transaction announcement also in luxury. However, the positive shock on the announcement date is remarkable.

Contrary to the interpretation of both median and average returns, the announcement of acquisitions by luxury firms seems to be received positively. The median and the average of the cumulative average excess returns plot are highly sensitive to the considered period. For instance, changing the considered period from (-30,+10) to (-20,+10) days yields opposite mean and average values, as shown in Figure 14. In this second case, the returns oscillate between 0.5% and -0.5% before jumping up on the announcement day. As anticipated, the mean and median are slightly positive, exactly the opposite as before, for all the three windows.

These results are fascinating and could indicate that the market recognizes such firms a superior ability in creating value through M&As. Furthermore, the returns on average seem to follow a random path till day zero, proving therefore reasonable the non-expectancy hypothesis of the event.

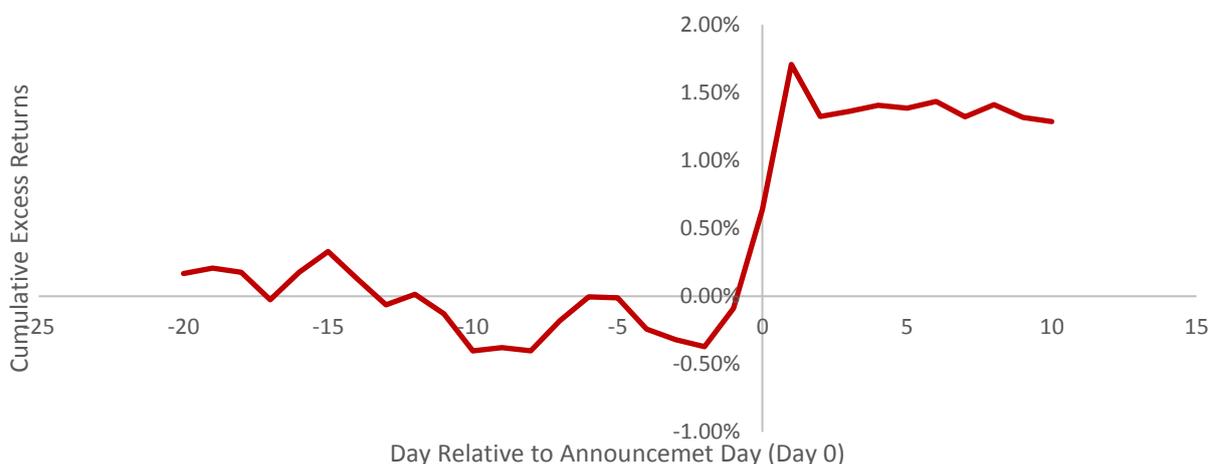


Figure 14: Average cumulative excess acquiror stock returns relative to announcement date of M&A transactions (-20;+10)  
[source: Author]

In Figure 15 is shown the variation in the distribution of short-term acquirer excess returns. The average and median excess returns are both positive, for five days window they worth respectively 1.65% and 1.88%. The results for the 21 days window are slightly lower but almost identical with an average of 1.42% and a median of 1.54%, which means that on average shareholders of luxury acquirers have benefitted, in the short term, from an M&A deal. Most of broader studies reported average and excess returns next to zero, concluding that M&As in average fail to create value.

Another sign indicating better than the average performance of luxury acquirers is the distribution of results. The distribution of excess returns in the short term is seemingly skewed to the right, on the positive side. On the five days window, 77% of the returns were greater than zero. In the same period, more than 40% of the transaction showed a positive excess return higher than 2%. On the 21 days window, the portion of positive returns diminished but still represented the majority of data amounting to 61%.

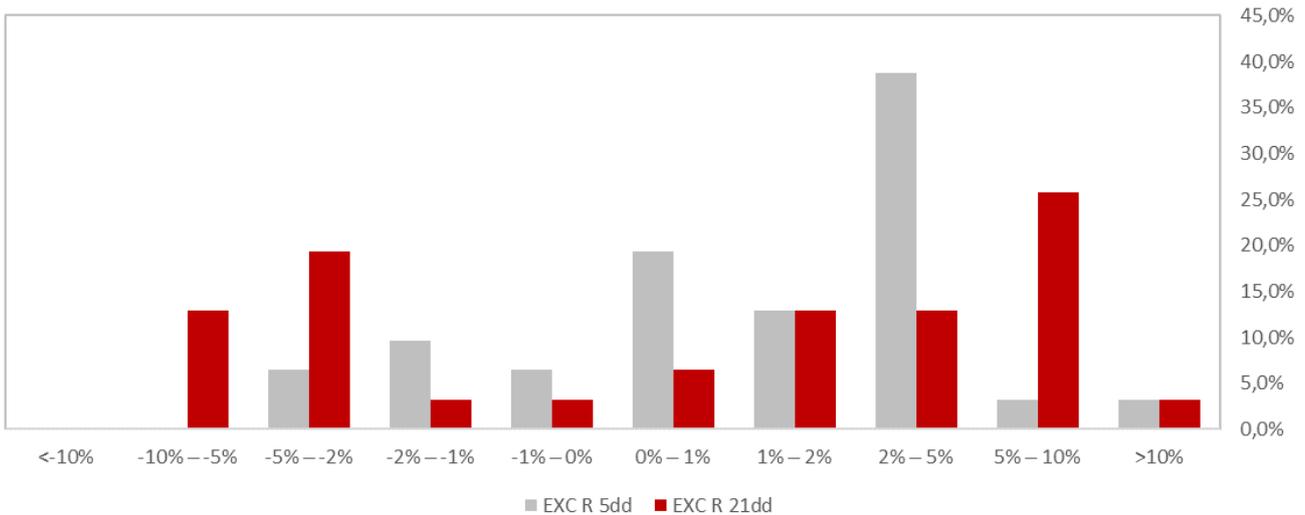


Figure 15: Distribution of short-term abnormal returns for acquirers [source: Author]

More than 10% of excess returns in the same period ranged from 5% to 10%, but there was also a significant concentration of almost 20% of data in the -5% – -2% bin. As it is evident, the returns are not concentrated close to the average; instead, they vary widely. Though not exceptionally widely as in both windows, no acquisition did worse than -10% and less than 5% gained extra returns higher than 10%. Most of the data are concentrated in the -2% – -10% interval on the negative side and in the 2% – 10% on the positive side.

The volatility of cumulative abnormal returns is proportional to the length of the considered window. As shown in Table 10, the coefficient of variation in the 21 days window is more than double than one of five days windows. It would be therefore misleading to state that the typical experience of a luxury acquirer is that of gaining about 1.5% in excess returns in the period of 5 or 21 days surrounding an acquisition announcement.

## STATISTICAL SIGNIFICANCE

The average abnormal returns on Day 0 and the cumulative average returns on the event windows were all positive. Suggesting that acquirers in the luxury personal goods industry do create value for their shareholders through M&A deals. This hypothesis needs to be statistically checked. How confident can we be that our sample results did not come out purely by chance?

The Crude Dependence Adjustment Test (CDA) and the Cross-Sectional Standard Deviation Test (CSS) were employed to check the significance of the results. Test statistics are discussed more in detail in Appendix 2. In Table 13 are shown the results of the test statistics:

Days	-10;-1	-5;-1	0	-2;+2	-5;+5	-10;+10	+1;+5	+1;+10
<b>Average Return</b>	0.04%	-0.09%	0.73%	1.65%	1.39%	1.42%	0.74%	0.65%
<b>tCSS</b>	0.065	-0.254	2.899***	3.106***	1.824**	1.482*	1.101	0.927
<b>tCDA</b>	0.056	-0.172	3.276***	3.300***	1.877**	1.386*	1.492*	0.917

Table 13: Statistical significance of short-term abnormal returns [source: Author]

\*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%

The results obtained by the two tests statistic are very similar. It is not surprising as Brown and Warner in their studies pointed out that the use of one or the other test statistic did not have an impact on their conclusions. Neither it has here. The positive average abnormal return of 0.73% at Day 0 is statistically significant at any commonly used significance level. The t-statistic is higher than the critical value; therefore, we can reject the null hypothesis of null abnormal returns on Day 0. Accordingly, the alternative hypothesis of a positive abnormal return is accepted. The same reasoning can be applied to the (-2,+2) window with a cumulative average abnormal return of +1.65%.

The (-5,+5) event window is still significant at the 5% level with a 1.39% cumulative return. Also, the results of the (-10,+10) window are significant for both test statistics, but only at the 10% level. The five days post-event window is not significant using the cross-sectional test, however using the t statistic with a crude dependence adjustment yields a result significant at the 10% level. It is suggesting that the abnormal returns were not realized only on Day 0 but could have also happened on the few subsequent days.

A longer post event period of 10 days proved the cumulative average abnormal return not being different from zero. Such a result is consistent with the market efficiency assumption. According to the data, we can state that the market reacted positively at the event announcement and incorporated the new information in the stock prices relatively quickly. The pre-event windows of five and ten days were also tested to check whether the market anticipated the deal announcement. As it can be noticed, the cumulative average returns before the event date were close to zero and non-significantly different from such value.

Besides the positive abnormal returns on the announcement day, both Meinshausen and Schiereck, (2011), and Konigs and Schiereck (2008) noticed that the conglomerate acquirers did not significantly

increase shareholder wealth. According to them, small and medium luxury companies benefitted most from the acquisitions. In order to verify this statement, the data of this study were clustered in two groups; one comprising the serial acquirers (previously defined as main players), and the other comprising the acquisitions made by small and medium enterprises plus Burberry. The results are shown in Table 14.

<b>Days</b>	<b>CAAR<sub>SER</sub></b>	<b>t<sub>CSS</sub></b>	<b>t<sub>CDA</sub></b>	<b>CAAR<sub>SME</sub></b>	<b>t<sub>CSS</sub></b>	<b>t<sub>CDA</sub></b>
<b>-10;-1</b>	0,15%	0,238	0,192	-0,26%	-0,174	-0,168
<b>-5;-1</b>	0,05%	0,145	0,101	-0,49%	-0,628	-0,440
<b>0</b>	0,66%	2,077**	2,777***	0,92%	2,616**	1,855**
<b>-2;+2</b>	1,53%	3,354***	2,852***	1,99%	1,196**	1,793**
<b>-5;+5</b>	1,33%	1,790*	1,671**	1,57%	0,643	0,952
<b>-10;+10</b>	1,16%	1,153	1,054	2,17%	0,885	0,953
<b>+1;+5</b>	0,61%	0,969	1,136	1,14%	0,567	1,023
<b>+1;+10</b>	0,35%	0,524	0,457	1,51%	0,754	0,962

Table 14: Comparison of the abnormal returns between serial acquirers and SMEs [source: Author]

\*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%

Acquisitions made by the non-serial acquirers had a slightly higher cumulative average abnormal returns, especially in the days following the announcement (Figure 16). However, both groups showed significantly positive abnormal returns on day zero and the surrounding windows. Instead, the abnormal returns preceding and following the event, same as before, were not statistically significant. Contrary to the previous studies, no difference was found between the performance of conglomerates and smaller independent acquirers. The former even experienced higher levels of significance, but that may be due to a larger sample.

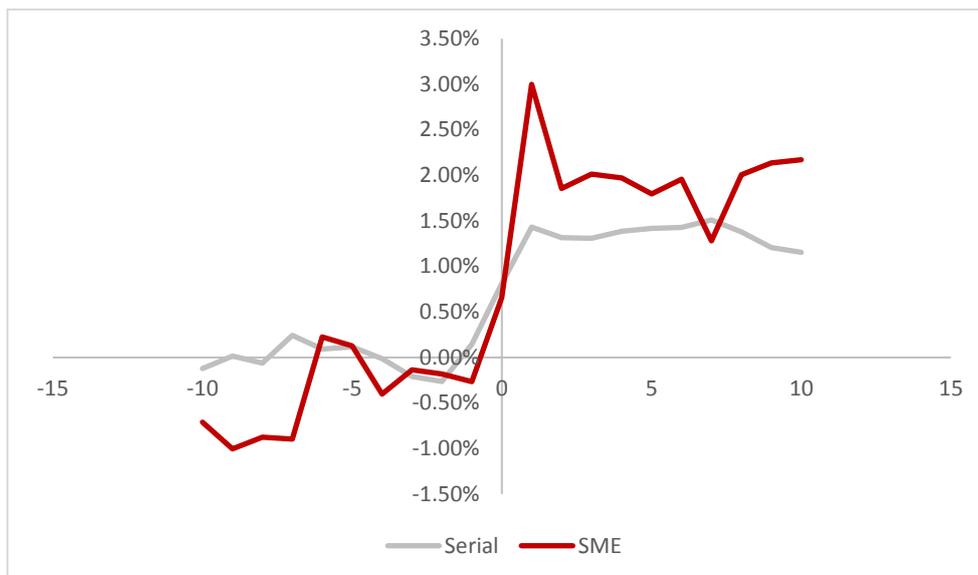


Figure 16: Average cumulative stock returns of serial and small acquirers (-10;+10) [source: Author]

It is possible to break down the serial acquirers further to check whether a single conglomerate drove the positive performance. To that purpose, the acquisitions made by LVMH, L’Oréal, and Kering were analyzed. Their average cumulative abnormal returns are shown in Figure 17.

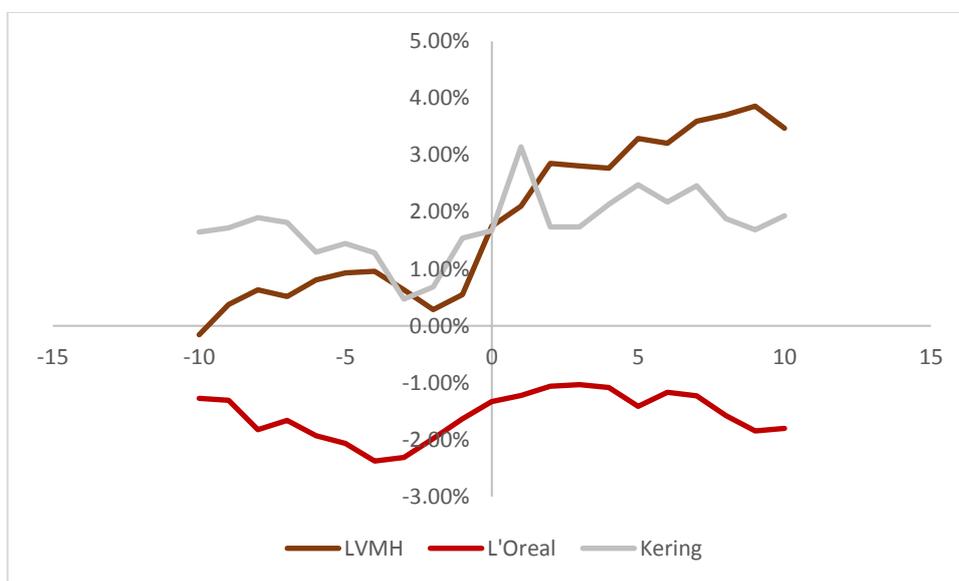


Figure 17: Cumulative average abnormal return of the main serial acquirers (-10;+10) [source: Author]

LVMH and Kering experienced remarkably positive cumulative abnormal returns surrounding the announcement day. The same cannot be said about L’Oréal, even though there was a positive movement on day zero, the abnormal returns remained steadily negative. However, the test of significance shows a slightly different story:

Days	CAAR <sub>LV</sub>	t <sub>CSS</sub>	t <sub>CDA</sub>	CAAR <sub>LOR</sub>	t <sub>CSS</sub>	t <sub>CDA</sub>
-10,-1	0,55%	0,948	0,378	-1,63%	-1,156	-1,646
-5,-1	-0,26%	-0,687	-0,250	0,30%	0,323	0,429
0	1,20%	2,239**	2,613***	0,30%	0,716	0,961
-2,+2	2,22%	4,378***	2,168**	1,25%	2,839**	1,787**
-5,+5	2,49%	1,821*	1,635*	0,52%	0,397	0,500
-10,+10	3,47%	2,331**	1,650*	-1,80%	-1,130	-1,254
+1,+5	1,55%	1,240	1,507*	-0,08%	-0,108	-0,117
+1,+10	1,72%	1,544*	1,186	-0,47%	-0,568	-0,475

Table 15: LVMH and L'Oréal abnormal returns [source: Author]

\*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%

LVMH showed highly significant positive abnormal returns on the announcement day and the windows surrounding it. The magnitude of the returns was also sizable; ranging from the +1.20% average abnormal return on Day 0 to a +3.47% cumulative average abnormal return in the 21 days window. The abnormal returns realized by LVMH, contrary to the rest of the cases, continued to grow also in the days following the transaction announcement. The returns were significant also in the (+1;+5) and (+1+10) windows.

L'Oréal, as expected, experienced much lower abnormal returns. Nonetheless, the +1.25% abnormal return in the five days windows was found to be significant at the 5% level by both t-statistics. The rest of the returns were not statistically significant.

Kering experienced positive abnormal returns in all the considered periods. However, none of them was significantly different from zero. It can be mainly attributed to the smaller sample size and higher volatility of abnormal returns,

## VALUE DRIVERS

Another typical analysis in M&A studies regards the possible drivers of value. The abnormal returns on the event day were found to be positive. Through a regression analysis, we can check whether there is a correlation between the value created and some explanatory variables.

The existing literature has not analyzed factors explaining M&A success of luxury firms. Here are proposed some explanatory variables already used in other industries for the same purpose. The proposed variables concern the profitability, size, and status of the target:

- *Profitability* ratios are based on accounting data. ROE and the operating margin of the bidder in absolute and relative terms to the acquired firm are often considered. According to the relative efficiency hypothesis, higher profitability derives from superior management skills. Therefore, if the acquiring firm is more efficient than the target, it can bring the target up to its own level after the transaction (Berger, DeYoung, Genay, and Udell, 2000). The involvement of relative profitability in value creation has been widely proven by empirical studies on M&As in the banking industry (Pilloff, 1996) (Hawawini and Swary, 1990) (Peek, Rosengren, and Kasirye, 1999). The same argument may be valid also for luxury firms. In light of this, it is reasonable to expect a positive correlation between bidder profitability and abnormal returns. However, as most of the sample targets are private companies, it is possible to consider only the absolute profitability of the acquirer.
- *Size* of the target is another determinant often employed in M&A studies. Smaller targets may be easier to integrate and thus facilitate the creation of value (Beitel, Schiereck, et al., 2004). The deal value has been taken as a proxy for the target's size as most of the targets are private companies and did not disclose financial statements. We can, therefore, expect a negative relationship between the deal size and the abnormal returns.
- *Status* of the target can influence the success of the deal too. As already discussed, private targets, as opposed to public ones, yield higher returns. However, that may be related to the size as private companies are generally smaller than the public ones. Other two factors often related to value creation in M&A studies are cross border targets and focus transactions. Consequently, we expect listed targets and the one who leads to diversification being negatively related to value creation; at the same time, we expect cross border transaction to be positively related to abnormal returns.
- *Experience* of the bidder, measured by the frequency with which M&A transactions are conducted, could also be related to the performance (DeYoung, 1997) (Zollo and

Leshchinskii, 2000). Previous studies on the luxury industry stated that serial acquirers did not create value. The current data sample, on the contrary, tells otherwise. Nonetheless, the abnormal returns of serial acquirers were lower than that of less frequent (small and medium) acquirers. According to the previous evidence, it is, therefore, reasonable to expect a negative relationship between the experience and the abnormal returns.

All the just mentioned characteristics were employed in a multivariate cross-sectional regression as independent variables in order to explain the abnormal returns on Day 0. The multicollinearity was controlled for using the variance inflation factor while the heteroscedasticity was controlled for using the Breusch-Pagan and Abridged White's tests. The results of the regression are shown in Table 16:

	<b>Coefficients</b>	<b>StdErr</b>	<b>Stat t</b>	<b>p-value</b>	<b>VIF</b>
<b>Intercept</b>	0,0117	0,0080	1,4659	0,1551	
<b>ROE</b>	0,0749	0,0281	2,6671	0,0132	1,0422
<b>Crossborder</b>	-0,0131	0,0059	-2,2337	0,0347	1,1170
<b>Experience</b>	-0,0064	0,0045	-1,4141	0,1697	1,1259
<b>Deal Value</b>	0,0000	0,0000	1,3746	0,1815	1,1587
<b>Diversivication</b>	-0,0080	0,0053	-1,5119	0,1431	1,0334

*Table 16: Results of the multiple regression analysis [source: Author]*

The model has a reasonable explanatory power:  $R^2$  is 44.99% while the adjusted  $R^2$  explains 33.98% of abnormal returns. Moreover, the F-test is significant at the 1% level.

From the column of p-values, it can be easily noted that only two coefficients are statistically significant at the five percent level (ROE and cross border deals). The rest are not significant, even at a ten percent level. The measure of profitability, being positively related to the abnormal returns, behaved as expected. It seems that the market reacts to the deal according to the relative efficiency theory also in the luxury industry.

Before running the multiple regression, the variables were tested one by one as explanatory variables. However, the results concerning the sign and significance of the coefficients were the same. ROE had a positive coefficient significant at the 5% level, explaining 19.12% of the independent variable. The cross-border transactions, instead, had a negative coefficient with the same level of significance but with a lower  $R^2$ , 13.21%. All the other variables had a p-value greater than 0.1.

It is interesting to note that cross border deals, contrary to expectations, had a significant negative impact on value creation. In many studies, cross border deals have an opposite effect on returns (e.g., Morosini, Shane, and Singh, 1998). However, the topic is debated in literature with shreds of evidence from both sides. One of the peculiarities of luxury firms is internationalization. As all the firms in the industry tend to operate internationally, a cross border acquisition can hardly be interpreted as aimed to increase the international footprint of a brand (exception made for the cosmetics). At the same time, the cultural difference between countries could be an obstacle to the integration process and thus, value creation. In the banking sector, for example, more shareholders value is created when target and bidder operate in a related geographical region (Houeston and Ryngaert, 1997).

Experience of the bidder, diversification, and size had the predicted effect on the success of the deal. However, none of them resulted in being significantly different from zero. These variables can be considered as control variables in the model. When singularly regressed against the abnormal returns, they were not significant; however, they were included in the model to check for possible interactions between the variables.

Other two variables were added to check the specification of the test. The additional variables are asset size of the bidder and a dummy variable assuming the value of one when the target is a listed company. Refer to table Table 17; the results did not influence the initial conclusions. The coefficients of the independent variables did not change the sign and kept almost the same significance level. The F test was still significant at the 5% level, and the  $R^2$  explained 30.05% of the change in the dependent variable. Only the variance inflation factor increased significantly, signaling a problem of multicollinearity. Nonetheless, Ramsey's RESET test did not detect misspecification in any of the two models.

Usually, the multiple regression analysis of M&A value drivers comprises a larger number of explanatory variables. In this case, instead, only five independent variables were used. That is due to the limited sample size. It is generally accepted that at least 30 observations are needed for the simple linear regression to be meaningful. There are no strict rules to determine the adequate sample size or number of variables for a multiple regression. The topic is relevant and often debated mainly in the fields of medicine and psychology. The most common and loose rule of thumb requires at least ten subjects for an additional variable. Therefore, with a sample size of 31 observations, no more than three explanatory variables should be used. Additional variables would drastically decrease the power of the t-test on the significance of the coefficients. Other rules of thumb require even bigger samples.

Further discussion on the topic can be found, among others, in Green (1991), Harris (1985), and Wilson and Morgan (2007). Nonetheless, economic studies are expected to incur in lower levels of variability; and therefore, require smaller samples to obtain the same level of power. For these reasons, the author did not include more than five control variables in the multivariate regression analysis. Even five independent variables would be considered too much by most of the practitioners. Nonetheless, the univariate regression supports the obtained results.

	<b>Coefficients</b>	<b>Std Err</b>	<b>Stat t</b>	<b>p-value</b>	<b>VIF</b>
<b>Intercept</b>	0,0117	0,0089	1,3132	0,2020	
<b>Diversification</b>	-0,0079	0,0064	-1,2397	0,227-5	1,4347
<b>Crossborder</b>	-0,0126	0,0067	-1,8884	0,0716	1,3590
<b>ROE</b>	0,0720	0,0294	2,4457	0,0225	1,0805
<b>Deal Value</b>	0,0000	1,93E-06	1,0388	0,3096	2,9498
<b>Experience</b>	-0,0085	0,0094	-0,9039	0,3754	4,5466
<b>Assets</b>	0,0000	2,51E-07	0,3006	0,7663	5,6169
<b>Public</b>	-0,0050	0,0073	-0,6803	0,5030	1,8718

*Table 17: Multiple regression model with two more control variables [source: Author]*

## **LONG TERM ABNORMAL RETURNS**

After analyzing the short-term excess returns, it is time to discuss the long-term ones. Table 14 shows the results of the beta regressions used to calculate the long-term normal returns. This time the industry index was taken as the independent variable. Therefore, while the short-term excess returns were market-adjusted, the long-term excess returns are industry-adjusted. The estimation period did not change, ranging from 249 to 31 days before the announcement day. Also, the methodology remains the same; what changes are just the benchmark index and the prediction period.

This time the prediction of the expected normal returns is made for one- and two-year periods. More precisely, one year here equals to 250 trading days following the transaction, whereas two years equal to a period of 500 post-event days. As to the chosen index, luxury personal goods is a subcategory of luxury and is not a commonly recognized industry. Furthermore, product categories within luxury personal goods substantially differ in type and cyclicity. Therefore, there is not a one fits all index. Sample firms are commercializing totally different products such as jewelry, handbags, and beauty products. It would be unreasonable for L'Oréal and Richemont to have the same

benchmark. However, luxury is an industry, and there are several global and European indexes to choose from.

Most of the companies were regressed against the MSCI Europe Textiles, Apparel and Luxury Goods Index. This index is composed of large and mid-cap stocks across 15 developed markets. All the acquirers' countries in the sample are included (France, Italy, United Kingdom Switzerland, and Belgium).

Furthermore, all the securities in the index are classified in the Consumer Durables & Apparel Industry group (within the Consumer Discretionary sector) according to the Global Industry Classification Standard (GICS). Thirteen constituents make the index. Half of the top ten constituents are part of the sample; these are LVMH, Kering, Richemont, Burberry, and Swatch Group. It is clear that also Brunello Cucinelli, Tod's, Salvatore Ferragamo and Van de Velde (luxury lingerie) makes part of the apparel industry and can be regressed on the same index.

The other two acquirers, namely L'Oréal and Interparfums, cannot be classified in the same group with the other companies. They still brand, produce, and commercialize personal luxury products, but these are not consumer durables or apparel. On the opposite, these goods are non-durable personal products. For their performance, it was used a different and more appropriate benchmark, the MSCI Europe Household and Personal Products Index. It comprises the same countries of the other index, but it contains only securities that are classified in the Household and Personal Product Industry group according to the Global Industry Classification Standard. L'Oréal is included in this index.

The four most recent transactions occurred all in 2018, were not considered in the two years excess returns statistics as two years did not pass yet since the date of the deal announcement. Of these, Belmond acquisition by LVMH and Italianouch acquisition by Tod's did not complete 250 trading days range. However, they were still considered in the 1-year excess returns sample with respectively 110 and 202 data points. Only one transaction has not been considered at all in the long-term analysis, the acquisition of Cova by LVMH. It happened too close to the Loro Piana acquisition made by the same French conglomerate. The Cova deal had a relatively negligible size compared to the two billion euro LVMH spend to acquire the Italian luxury clothing company specialized in the wool and cashmere. Therefore, it could not have any distinct impact on the long-term perspective. Considering the Cova transaction in the long-term perspective would result in doubling the data of Loro Piana excess returns.

On Table 15, the data are summarized through the representation of point estimates. Beta estimates have the same variation but are slightly higher as compared to the slopes regressed over the market index. That is perfectly reasonable and expected as this time, we are not getting the systematic risk of the stock, but the risk stocks are exposed relatively to their industry. Therefore, such risk is expected to be closer to one. Accordingly, most of the beta were extremely close to one, as the median value is 0.95.

Furthermore, also the maximum value got closer to unity dropping from 1.61 to 1.24. Concerning significance, there were no doubts that t-statistics would be higher. All estimates significantly increased: average, median, and maximum betas almost doubled; also, the minimum value increased, from 2.13 to 3.06.

<b>N</b>	<b>Target</b>	<b><math>\beta_{LT}</math></b>	<b>T-stat</b>	<b>R<sup>2</sup></b>	<b><math>\alpha_{LT}</math></b>	<b>T-stat</b>	<b>CAR<sub>(0;+250)</sub></b>	<b>CAR<sub>(0;+500)</sub></b>
1	Belmond	1,19	37,47	0,87	0,03%	0,84	5,84%	/
2	Italiantouch Srl	0,37	4,20	0,08	-0,05%	-0,62	-5,11%	/
3	Nanda	0,91	21,83	0,69	0,04%	1,04	3,05%	/
4	YNAP	0,98	18,06	0,60	-0,01%	-0,26	-18,60%	/
5	Dior Couture	1,10	30,15	0,81	0,01%	0,21	4,01%	20,47%
6	Brunello Kuchinelli Rus	0,51	6,72	0,17	0,05%	0,56	-3,52%	10,40%
7	CeraVe & AF& AMBI (Valeant)	0,98	28,13	0,79	0,04%	1,07	-11,38%	-9,68%
8	RIMOWA	1,14	36,85	0,86	0,01%	0,25	3,51%	10,87%
9	IT Cosmetics	1,03	37,20	0,86	0,00%	-0,06	-2,23%	16,64%
10	Roger Vivier	0,77	12,12	0,40	0,04%	0,41	-49,04%	-71,32%
11	Rochas (P&G)	0,60	4,33	0,08	-0,05%	-0,43	-2,03%	43,64%
12	Ulysse Nardin	0,91	14,22	0,48	-0,02%	-0,36	4,38%	16,37%
13	Carita & Decleor (Shiseido)	1,17	21,75	0,69	0,03%	0,60	-15,58%	-22,36%
14	Magic Holdings	1,22	23,16	0,71	0,00%	-0,08	-5,93%	-9,76%
15	Loro Piana	0,92	25,31	0,75	-0,07%	-1,46	27,24%	71,26%
16	Cova	/	/	/	/	/	/	/
17	Pomellato	0,72	14,72	0,50	0,12%	1,57	-44,37%	-63,04%
18	Harry Winston	0,98	32,55	0,83	0,00%	0,00	4,47%	-29,74%
19	SF Asia	0,91	10,85	0,35	0,15%	1,08	8,77%	-55,39%

20	Abbey Reinsurance	0,74	15,66	0,53	0,05%	0,65	-6,36%	-9,74%
21	Urban Decay	1,13	21,96	0,69	-0,01%	-0,29	-1,16%	2,71%
22	Cadum	0,97	20,34	0,66	-0,01%	-0,23	11,69%	7,04%
23	Brioni	0,72	19,52	0,64	0,00%	0,00	15,02%	25,21%
24	Rigby & Peller	0,16	3,06	0,04	0,06%	0,79	-13,11%	-23,60%
25	Volcom	0,77	15,39	0,52	-0,04%	-0,56	12,10%	48,40%
26	Bulgari	1,09	42,51	0,89	0,02%	0,55	-0,43%	-16,72%
27	Burberry Asia	0,98	15,27	0,52	0,07%	0,73	19,37%	-9,56%
28	NAP	1,24	24,33	0,73	0,04%	0,44	-11,06%	-25,50%
29	Eurocorset SA	0,25	4,65	0,09	-0,07%	-0,69	27,86%	50,60%
30	YSL Beaute	1,14	25,69	0,75	0,04%	0,67	-5,69%	-18,39%
31	Bodega Numanthia	0,88	28,72	0,89	-0,03%	-0,80	13,27%	34,13%

*Table 18: Long-term abnormal returns [source: Author]*

Again, no intercept was found to be statistically different from zero; proving that also at the industry level, no company performed systematically better.

The goodness of fit improved remarkably; all of its estimates increased as compared to the previous regression. However, it does not mean that the benchmark is better in explaining the returns. Most of the transactions were made by large-cap firms which have a significant weight in the reference index they are regressed against. As the returns of the company influence the returns of the benchmark, it is natural that the R-squared are higher than before.

The cumulative abnormal returns proved to be negative in both 250- and 500-days post-event periods; suggesting that the acquisitions had a negative long-term effect on acquirer's performance. On two years basis, the distribution seems to be less skewed to the negative side. Differently from the one-year period, the minimum and maximum values are almost identical in magnitude, and the average is closer to zero. However, the median remained negative and dropped to -3.43%. The coefficients of variation increased dramatically for both windows highlighting the variability of the data. Thus, the average and the median may be misleading as they are not representative of a typical transaction.

Parameter	Average	Median	Max	Min	CV
$\beta$	0.88	0.95	1.24	0.16	0.32
T-stat	20.56	21.05	42.51	3.06	0.52
$\alpha$	0.00	0.00	0.00	0.00	3.63
T-stat	0.19	0.67	1.57	0.00	3.64
$R^2$	58.30%	67.18%	89.32%	4.15%	0.46
$CAR_{(0;+250)}$	-1.17%	-0.79%	27.86%	-49.04%	14.46
$CAR_{(0;+500)}$	-0.27%	-3.43%	71.26%	-71.32%	128.44

Table 19: Long-term market model regression results [source: Author]

Figure 16 displays the distribution of long-term industry-adjusted excess returns for acquirers on a period of 1 and two years after the announcement date. Over longer windows, contrary to the short-term performance, the acquirers tended to underperform with respect to the expected returns. The median 1- and 2-years returns were respectively of -0.79% and -3.43%, both much lower than their short-term equivalents. One could conclude that on average, the performance of a typical transaction deteriorates over time. However, that may be wrong; the key to interpreting the data is in the variability.

Compared to the short-term windows, the distribution is greater and evener. There are extreme results on both sides, on two years basis, more than 10% of the sample performed worse than -40% while more than 15% of the sample did better than 40%. In the same period, the data resulted in being evenly split between negative and positive values. On a one-year basis, the data are more concentrated, more than 50% are in the range from -10% to 10%. The distribution resembles a bell shape with a negative mean. In fact, most of the one-year cumulative abnormal returns are lower than zero.

It is evident how the portion of positive data plummet from more than 60% in the short term to less than 50% in the long term. That means part of the transactions initially well received by the market turned out to perform poorly in the long run. To further investigate this phenomenon, the short term cumulative abnormal returns were clustered in groups according to their performance. Then the short-term performance of the groups was compared to the long term one. The results are shown in Table 16.

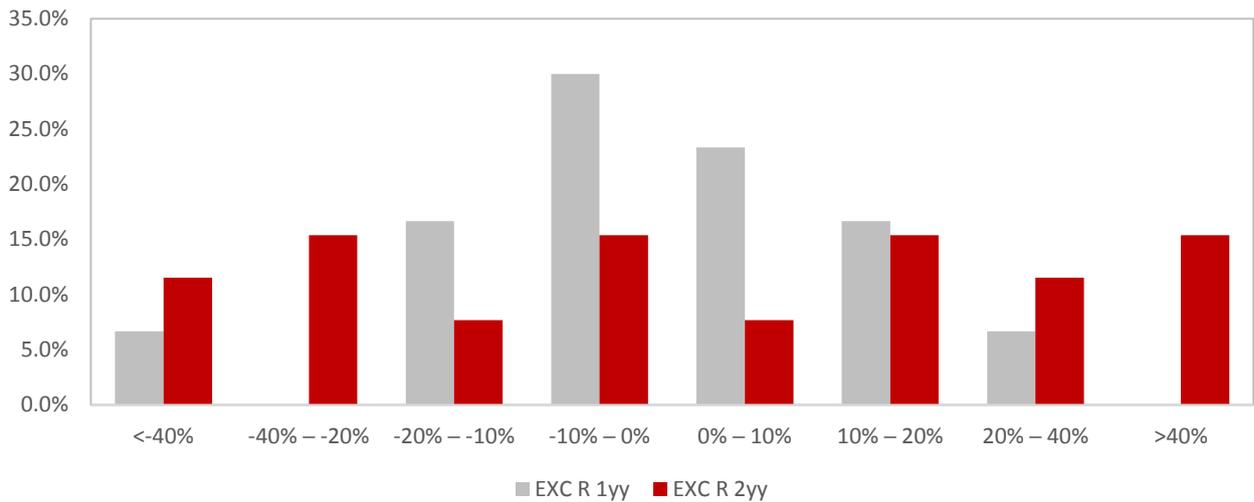


Figure 20: Distribution of long-term abnormal returns for acquirers [source: Author]

Four clusters have been identified according to the five days window performance — two with negative cumulative abnormal returns and two with positive. Ranging in absolute value from zero to two percent, and over two percent. Namely, 45.2% of extra-returns were really positive exceeding 2%, 32.3% were slightly positive ranging from 0% to 2%, 16.1% were slightly negative ranging from -2% to 0% and only 6.5% were really negative with extra returns lower than -2%.

Companies that did not meet their expected returns continued to perform poorly also on a one-year basis. The means of the two negatively performing clusters plummet from -3.03% to -28.74% and from -1.19% to -14.23%. Thus, destroying sizable amounts of value for their shareholders. At the same time who performed remarkably well at the announcement (>2%) continued to accumulate extra-returns over time. The extremely positive performances continued the positive path reaching a 6.15% mean return, indicating that some acquisitions did create sizable value for bidder's shareholders. So far, the market short term reaction to the acquisition announcement matches the subsequent long-term performance.

However, the most interesting bin is the of a slightly positive performance ranging from zero to +2%. The mean cumulative abnormal returns increased, continuing to be positive while the median became negative. It is the only group that changed its initial sign of the median return, turning the short-term estimator of 0.64% into a long-term of -0.79%, which means that most of the data over time turned to be negative.

<b>CAR<sub>(-5+5)</sub></b>	<b>% of observations</b>	<b>Median ST return</b>	<b>Mean ST return</b>	<b>Median LT return</b>	<b>Mean LT performance</b>
<b>&lt;-2%</b>	6.5%	-3.03%	-3.03%	-28.74%	-28.74%
<b>-2%-0%</b>	16.1%	-1.10%	-1.19%	-6.36%	-14.23%
<b>0%-2%</b>	32.3%	0.64%	0.91%	-0.79%	1.37%
<b>&gt;2%</b>	45.2%	2.46%	3.86%	4.38%	6.15%

*Table 16: Median and mean abnormal returns by the magnitude of short-term market impact [source: Author]*

These findings are contrary to the executive’s belief that the short-term stock price impact of a transaction is a temporary phenomenon that may be easily reversed in the long run. In fact, in most of the cases, the initial performance tends to persist over the long run. Nonetheless, it is possible to reverse markets short term reaction to the deal. However, the data suggest that most likely, it is not going to happen in the direction wished by the executives — negative changes outnumbered by far the positive ones. More specifically, while 43% of the short-term positive abnormal returns turned out to be negative after one year, the opposite happened only in 14% of the cases.

## **STATISTICAL SIGNIFICANCE**

Event studies on long term horizons have become recurrent in the literature. However, there is a great debate on whether and how much reliable are the results so obtained. Khotari and Warner (2007) have analyzed the topic. They conclude that the inference from long-term tests “require extreme caution” (Khotari and Warner, 1997) and even using the best methods, the analysis of long-run abnormal returns is insidious. It contrasts with short-horizon methods, which are relatively straightforward and trouble-free. As a consequence, conclusions about long-horizon results must be interpreted carefully and must be given appropriate weight.

Long-horizon tests are highly sensitive to the joint-test problem and have low power besides being often poorly specified. Table 17 analyzes the difference between the short- and long-term event study tests. The table shows the characteristics of event study methods along three dimensions: specification, power against specific types of alternative hypotheses, and the sensitivity of specification to assumptions about the return generating process.

In sharp contrast to short-horizon tests in which risk adjustment is straightforward and typically irrelevant, in long-horizon tests, appropriate adjustment for risk is critical in calculating abnormal

price performance. Even a small error in risk adjustment can make an economically significant difference when calculating abnormal returns over horizons of one year or longer, whereas such errors make little difference for short horizons. Therefore, the determination of risk adjustment becomes crucial in long-horizon event studies. Estimates of abnormal returns over long horizons are highly sensitive to model choice. The problem consists in the absence of consensus in determining which return model is correct.

The two main methods for assessing post-event risk-adjusted performance are the characteristic based matching approach and Jensen's alpha approach. The former is also known as the buy-and-hold abnormal returns (BHAR) and is described by Mitchell and Stafford (2000, p. 296) as "the average multiyear return from a strategy of investing in all firms that complete an event and selling at the end of a prespecified holding period versus a comparable strategy using otherwise similar nonevent firms". The BHAR approach is often prized for better resembling the investor's actual investment experience. However, it does not solve the problem of joint testing as it is based on the assumption that the two compared group of firms (event and non-event) differ only based on experiencing or not the event, which is definitely a strong assumption.

Jensen's alpha approach is also known as the calendar-time portfolios method. The basic idea of the approach is to construct a portfolio of firms for which occurred the event of interest. Define the abnormal return earned by this portfolio as the portfolio's excess return (i.e., the return over the risk-free rate) that cannot be explained by risk-factor models used to predict expected returns (the CAPM and the three- and four-factor models). Then a time-series regression on actual returns is run. If the intercept of the regression is significantly different from zero, it means that abnormal returns occurred at the event date.

In both methodologies, it is not easy to calculate unbiased standard errors for the distribution of the event-portfolio abnormal returns, which leads to testing misspecification. While many practices have been employed to reduce misspecification in long-horizon studies, no procedure in whose specification researchers can have complete confidence has yet been developed. Moreover, even if a long horizon event study is well specified, it will have low power in detecting abnormal performance.

Summing up, for long-horizon methods, the test statistic specification is highly sensitive to the benchmark model of normal returns and to the assumptions about the cross-sectional and time-series dependence of abnormal returns.

Given the low reliability of long-horizon tests, this study did not employ any. The long-term abnormal returns are thus considered only in a descriptive way. Employing BHAR or Jensen's alpha approach would not have changed the conclusions as it would still have been considered an open question whether the measured abnormal performance was due to chance, mispricing, or a wrong model.

Criterion	Length of Event Window	
	Short (< 12 months)	Long (12 months or more)
<b>Specification</b>	Good	Poor/Moderate
<b>Power when abnormal performance is:</b>		
Concentrated in event window	High	Low
Not concentrated in event window	Low	Low
<b>Sensitivity of test statistic specification to assumptions about the return generating process:</b>		
Expected returns, unconditional on event	Low	High
Cross-sectional and time-series dependence of sample abnormal returns	Low/Moderate	Moderate/High
Variance of abnormal returns, conditional on event	High	High
<b>Sensitivity of power to:</b>		
Sample size	High	High
Firm characteristics (e.g., size, industry)	High	High

Table 17: General characterization of properties of event study test methods

[source: *Econometrics of Event Studies*, Khotari & Warner, 2007]

## **2.2 SUMMARY AND CONCLUSIONS**

### **2.2.1 Summary**

Before getting to the conclusions of the elaborate, it is worth to summarize the extensive work until here presented. This summary is aimed to underline the central theme of the elaborate, in order to have a clear picture of the work before the conclusions.

In Chapter I it has been discussed the definition, characteristics, activity, rationale, and valuation of mergers and acquisitions according to the existent theory and literature:

**1.1.1** M&As were defined as transactions between two entities, which result in a change of control of a company, business division, or a set of assets. Such transactions are major corporate events and have an impact on the involved parties on every corporate level. Therefore, their planning and execution are crucial for success.

**1.1.2** Types of M&As have been defined and discussed accordingly to multiple criteria. Namely, competitive relation, deal structure, financing method, the status of the target, and impact on earnings per share.

**1.1.3** Then it was shown the path of merger activity over time, characterized on the global level by peaks of activity and periods of slow down. All the seven merger waves were briefly described in their main characteristics.

**1.1.4** The rationale behind M&As has been analyzed considering a comprehensive picture of corporate theory. Several theories of merger motives exist. However, none is exhaustive in explaining all the real cases. The two most cited theories are empire-building and efficiency theories. The former, in accordance with agency theory, consider managers as agents maximizing self-interests and so using M&As as means to increase their wealth, benefits and prestige. The latter, on the reverse, considers M&As a way management can accomplish the corporate goal of increasing shareholders wealth, by exploiting synergies.

**1.1.5** Synergies themselves have been discussed, as they are the most cited rationale by executives at the announcement of a deal. These occur when the two companies jointly worth more than

separated. They could be operating or financial. The former takes the form of economies of scale, economies of vertical integration, exploitation of complementary resources, or elimination of inefficiencies. According to the way they are realized, operational synergies can be further divided into cost and revenue synergies. Cost synergies are more valuable as cost cuts are more easily predictable and realizable than revenues forecasts. Financial synergies can be divided into reasonable motives to merge, these are namely tax benefits, increase in debt capacity and cash slack, and motives that do not create value and so do not justify a merger these are diversification and bootstrap game.

**1.1.6** A simple but powerful model for the evaluation of M&As has been presented. An economic benefit for acquirer shareholders exists only if the two companies worth more together than separate. However, that is not enough; we must also consider the cost of the transaction. It is given by the price paid for the target minus its present value. Thus, the bidder company achieves a positive net present value only if the economic benefits of the transaction are higher than its cost. The market, theoretically, incorporates at the announcement date the so described net present value of the transaction in the bidders' valuation.

**1.1.7** Here comes in the game the market efficiency theory. There are three forms of market efficiency: weak, semi-strong, and strong. The semi-strong form of efficiency states that all the past and available information are incorporated in the stock prices. Thus, if it is valid, the new information will cause a change in the stock price on the announcement day of a merger. That is because the present value of future cash flows determines the firm valuation. If the net present value of the transaction is positive acquirers' stock price will increase to take into account, the increase in future cash flow expectations. Thus, by accepting the semi-strong form of market efficiency, to estimate the value created by a transaction, we do not have to calculate the stand-alone values of the two companies, and then compare them to the joint value and the deal cost. We can indirectly observe if the transaction destroyed, maintained, or created value for the bidders' shareholders by observing its stock price movements at the announcement day. However, the market efficiency theory it is not bulletproof. Several studies found patterns in stock prices, arguing their non-randomness. Nevertheless, the debate on market efficiency is still open as such studies are far from being conclusive. They may be just a result of our inappropriate or incomplete way of incorporating risk premiums.

**1.1.8** To conclude the first part, literature evidence has been discussed. So far effects of M&As have been studied through event studies, accounting studies, surveys of executives, and clinical

studies. The main findings, as well as pros and cons, were presented for every methodology. However, greater focus was put on event studies as they incorporate the logic described in the previous point. They are based on financial theories and allows for statistical inference. As there is no clear evidence of nor value creation nor value destruction for buyer firms, the common conclusion is that M&A activity on average yields null abnormal returns to buyer shareholders. However, some transaction characteristics were found to be correlated with the returns. Namely, focus, value acquirers, cash financing, and strategic acquisition planning were found to be related to positive performance. Instead, an increase in market power, as opposed to the common belief, did not pay.

In the second half of Chapter I, the focus shifted towards the luxury industry in order to contextualize the M&A phenomenon in the specific industry. Here has been discussed the concept itself of luxury, the definition of such industry, the particular segment of personal luxury goods, industry consolidation, and the leading players in the context:

**1.2.2** What is sure is that luxury has always existed in human civilizations. However, a clear definition of luxury is trivial, and the concept is elusive. Such prefix assumes a subjective interpretation and could be applied virtually to anything. Nonetheless, to define a clear distinction from regular products, luxury products were defined as those products that exceed what is necessary and ordinary compared to others. Six characteristics of luxury products have been recognized to make the distinction more feasible. These are symbolism, quality, aesthetics, rarity, extra-ordinariness, and price. According to such definition, the luxury industry (in the broad sense) is a cross-sectional industry that includes all products subject to the definition of luxury.

**1.2.3** In this chapter it has been shown that the luxury industry, comprising very heterogeneous products, is usually segmented in personal luxury goods, luxury cars, luxury hospitality, fine wines & spirits, gourmet food & fine dining, fine art, high-quality furniture & homeware, private jets & yachts, and luxury cruises. The focus of the study is on personal luxury goods (PLG), which is the second-largest luxury market after luxury cars. PLGs were defined as those products that are employed by the consumers to manage their self-image. By doing so, they build up a personal connection with these products. More precisely, these goods include apparel, jewelry, shoes, bags, watches, and cosmetics. Such a segment of luxury experienced steady growth since 1996, when it was worth only EUR 76 billion, reaching a market value of EUR 260 billion in 2018.

**1.2.4** The industry is concentrated in Europe (especially in Italy and France) and is characterized by small and medium enterprises. It is not surprising as rarity and extra-ordinariness are not compatible with mass production and economies of scale. Nonetheless, M&A activity is present in the industry in two forms: vertical integration and conglomerates. Industry consolidation started in the 1990s with the emergence of large groups. Nowadays, almost 50% of the market is controlled by the top 10 luxury goods companies. Even though further consolidation is still possible as the rest of the market is controlled by a myriad of small and medium enterprises. Moreover, American companies also are starting to enter the luxury corporate control market.

**1.2.5** Concerning M&A activity, six main players in the PLG industry, were described and analyzed. These are LVMH, Kering, Compagnie Financiere Richemont, Swatch, L'Oréal, and Estée Lauder. All are European (three French and two Swiss), except Estée Lauder which is American. The largest group is the French LVMH. It owns more than 70 brands. While it is mainly concentrated on PLGs, it is active almost in all segments of luxury. Its closest competitor is another French group, Kering. It counts 27 brands focused all in the production of PLGs (all except cosmetics). The Swiss companies, Compagnie Financiere Richemont and Swatch, are mainly focused on the watches and jewelry categories managing respectively 19 and 20 brands while L'Oréal and Estée Lauder compete exclusively in the cosmetics, holding respectively 49 and 30 brands.

**1.2.6** Given analyst forecasts and the statistics of the recent M&A activity in PLG industry is possible to highlight three main trends: increase in the number of deals, decrease in the average transaction value and acquisitions of digital start-ups.

Chapter II of the elaborate concentrates on the analytical aspect addressing the empirical study. The aim is to verify whether M&As in the PLG industry created value for acquirer shareholders. The hypothesis was checked running an event study; considering the literature evidence about the statistical properties of different event studies methodologies, it has been chosen the daily returns methodology. The workflow proceeded as follows:

1) *Research question*. The null hypothesis of zero abnormal returns was set to investigate the hypothesized value creation through M&A by PLG companies. The alternative hypothesis claimed positive abnormal returns at the announcement day.

2) *Data collection.* A period of 11 years (from 01/01/2008 to 01/01/2019) has been chosen for the analysis. The list of M&A transactions and the relevant data have been collected from the Zephyr database, while adjusted daily closing prices have been collected from the Bloomberg database.

3) *Choice of the event window.* The event day (Day 0) was determined in congruence with the first official announcement made by the acquirer about the deal. Besides the event day, several event windows were considered. Namely, these were (-10;-1); (-5;-1); (-10;+10); (-5;+5); (-2;+2); (+1;+5) and (+1;+10).

4) *Choice of the normal return model.* Considering the literature on the properties of different expected return models and how they influence the event study methodology, the market model has been chosen.

5) *Estimation period.* The pre-event estimation period for the market model regression has been set to 218 days, starting 31 days and ending 248 days prior to the announcement day.

6) *Calculation of abnormal returns.* The normal returns were estimated for the 41 days window, starting at day -30 and finishing at day +10. Then it was computed the difference between the realized and the expected returns.

7) *Calculation of average abnormal returns.* The previous step has been executed for every transaction. Once having the array of the abnormal returns for every transaction, the cross-sectional average returns for the (-30,+10) days window has been computed. Besides considering the Day 0 average abnormal return, also the cumulative average abnormal returns for every window cited in the third step were determined.

8) *Significance test.* For every considered window has been calculated two test statistics: the simple cross-sectional and the crude dependence adjustment. Finally, all the results have been reported and commented.

Besides the short-horizon abnormal returns statistical significance, it was also analyzed the distribution of the abnormal returns for the 5- and 21-days windows. Furthermore, such distribution was compared to the distribution of long-horizon abnormal returns. These were computed for 250 and 500 post-event days, taking as the benchmark an appropriate industry index for every transaction.

However, no statistical test has been computed for the long-horizon abnormal returns, given the low power and specification of such tests.

Finally, a regression analysis was made in order to check which factors influence the abnormal returns on the announcement day. Only ROE of the bidder and cross-border targets had statistically significant coefficients, respectively positive and negative.

### **2.2.2 Conclusions**

Although the phenomenon of mergers and acquisitions is more than a hundred years old, the debate on motives and effects of these corporate events is still open. It is hard to believe in the existence of a “universal theory of M&As”, which could explain the reasons behind every real case transaction. It is not the case of physics or laws of the natural world. Instead, this is the case of human decision making. The management, who happens to be human, ultimately decides to make an acquisition. As in the real world, the existence of *homo economicus* has not been proved; we ought to believe that also mergers belong to the *homo sapiens* species. Therefore, their decisions are not always 100% rational but fall into a spectrum of rationality. No wonder that multiple theories, both rational and behavioral, of merger motives, have found some (even though contradictory) evidence in their favor. However, instead of looking for a law explaining M&A motives, we can state which rationale M&As decision should ideally follow.

A company is a legal entity whose ultimate goal is to increase shareholders’ wealth (if we accept shareholders primacy). Such a goal is achieved by increasing the value of the company. Thus, every management decision should be taken to increase the magnitude of future cash flows. In light of this, acquisitions and mergers become a real option, a choice made available to the managers of a company concerning business investment opportunities. Mergers and acquisitions, in other words, are a tool management can use to perceive value creation. Being a tool, M&As cannot be judged as good or bad. What can be judged is the use of the tool that has been made.

The studies based on past M&As do not and cannot prove whether such transaction creates value or not a priori. What they prove instead is the ex-post effectiveness of M&A execution. Namely, whether managers have been able to create value through acquisitions or not. That is different from stating the ability of the tool itself to create value. In this merit, more than a single transaction created value for acquirer shareholders, proving that M&As can create value. At the same time, more than a

single transaction destroyed value for acquirer shareholders, proving that M&As can also destroy value.

Therefore, the first conclusion of the elaborate is that the debate on whether M&As on average create, destroy or preserve value for bidder's shareholders is misleading. The attention of the research should be directed towards M&A decision making process and execution to find out why such a high rate of deals failed to create value. What managers have done wrong and what instead they should do given a specific endogenous and exogenous environment.

Coming to the practical conclusions:

1. The central hypothesis of the elaborate is confirmed. The event study findings prove that European acquirers that belong to the PLG industry experienced positive abnormal returns at the announcement day. However, that is not a surprising result after all. Several characteristics of the analyzed transactions (shown in Table 18) are known to be positively related to value creation. These are cash deals, private targets, focus, and strategical planning.

Acquirers from the PLG industry seemingly follow the best practices in executing their M&A deals. That is not surprising as most of the transactions were made by companies that have a long track record of acquisitions. It justifies the significant positive abnormal returns on the announcement day. However, the financial structure of the deals and target status are inherent to the industry itself. High margin of PLGs allows companies to collect sizable amounts of cash once beyond the break-even point. Excess cash can be distributed as dividends or reinvested in growth internally or externally through acquisitions. Thus, explained the extensive use of cash as the form to finance the transactions. From the other side, most of the targets are private companies because most of the companies in the industry are family-run, not listed, small, and medium enterprises. Therefore, acquisitions in the PLG industry can be classified as due to cash slack.

2. Contrary to previous literature, both conglomerate and SME acquirers experienced positive abnormal returns. Even though the returns of the latter group were slightly higher, that may be due to a diminishing marginal utility effect of new acquisitions (Konigs and Shiereck, 2006). Comparing the performance of the most active conglomerates, differently from Kering and L'Oréal, LVMH showed significant positive performance over a multitude of windows, both

around and after Day 0. That suggests the market believes in a superior ability of LVMH in creating value through mergers as opposed to the competing groups.

3. The abnormal returns at day zero are positively related to bidder's ROE and negatively to the cross-border nature of the deal. The former case is a prove of relative efficiency hypothesis validity also for luxury acquirers. The latter, instead, can be interpreted in light of the cultural differences. These can be an obstacle to the process of integration and thus have a negative impact on value creation.
4. Concerning the distribution of returns, companies who performed very well or very poorly in the short term magnified their performance on the long horizon — suggesting that also for luxury acquirers, there is a clear link between short-term perception and the ultimate success or failure of M&A transactions. It appears that the market's initial view of the transaction's performance is an indicator of its long-term success. However, a significant proportion of slightly positive initial performances turned out to be negative over the long horizon. It could mean that the market has been overly optimistic in the short run and then corrected the bias downwards. That resembles momentum and mean reversion movements around the true value of the firms.

N	Event Date	Acquirer	Target	Status	Transaction Value (MLN EUR)	Financing Structure (%CASH)
1	14/12/2018	LVMH	Belmond	Public	2800	100%
2	03/08/2018	Tod's	Italianotouch Srl	Private	25	100%
3	02/05/2018	L'Oreal	Nanda	Private	454	na
4	22/01/2018	Richemont	YNAP	Public	2602	100%
5	25/04/2017	LVMH	Dior Couture	Public	10000	100% (+Hermes stock)
6	31/03/2017	Brunello Cucinelli	Brunello Kuchinelli Rus	Private	7	na
7	10/01/2017	L'Oreal	CeraVe & AF& AMBI (Valeant)	BD	1200	100%
8	04/10/2016	LVMH	RIMOWA	Private	640	na
9	22/07/2016	L'Oreal	IT Cosmetics	Private	1078	na
10	22/11/2015	Tod's	Roger Vivier	Private	415	100%
11	19/03/2015	Interparfums	Rochas (P&G)	BD	98	na
12	30/07/2014	Kering	Ulysse Nardin	Private	650	na

13	18/10/2013	L'Oreal	Carita & Decleor (Shiseido)	BD	230	na
14	15/08/2013	L'Oreal	Magic Holdings	Public	615	100%
15	08/07/2013	LVMH	Loro Piana	Private	2000	na
16	27/06/2013	LVMH	Cova	Private	33	na
17	24/04/2013	Kering	Pomellato	Private	336	na
18	14/01/2013	Swatch	Harry Winston	BD	778	liabilities
19	20/12/2012	Salvatore Ferragamo	SF Asia	Private	25	100%
20	11/12/2012	Kering	Abbey Reinsurance	BD	35	100%
21	26/11/2012	L'Oreal	Urban Decay	Private	322	na
22	26/04/2012	L'Oreal	Cadum	Private	200	na
23	08/11/2011	Kering	Brioni	Private	350	na
24	17/08/2011	Van de Velde	Rigby & Peller	Private	9	na
25	02/05/2011	Kering	Volcom	Public	362	100%
26	07/03/2011	LVMH	Bulgari	Public	3700	45%
27	16/07/2010	Burberry	Burberry Asia	BD	90	100%
28	01/04/2010	Richemont	NAP	Private	281	na
29	20/06/2008	Van de Velde	Eurocorset SA	Private	15	100%
30	30/04/2008	L'Oreal	YSL Beaute	BD	1150	na
31	13/02/2008	LVMH	Bodega Numanthia	Private	27	na

Table 18: Transaction characteristics [source: Author]

### 2.2.3 Criticism

The applied event study methodology has a drawback, however: “To the extent the event period is associated with increased uncertainty, i.e., greater return variability, the use of historical variability might understate the true variability of the event-period abnormal performance. An increase in event-period return variability is economically intuitive. The event might have been triggered by uncertainty-increasing factors, or the event itself could cause uncertainty in the economic environment for the firm. In either case, the event-period return variability is likely to exceed that during other time periods for the event firms. Therefore, the statistical significance of the event-window abnormal performance would be overstated if it is evaluated on the basis of historical variability of the event-firm portfolio returns.” (Khotari and Warner, 2007).

Nonetheless, the variability bias may not be so severe. Most of the transactions in the study were made by very active companies in the market for corporate control. The estimation period of one year often included previous transactions. Considering the frequency of acquisitions made by conglomerates like L'Oréal and LVMH, we can reasonably expect that the historical variability, in such context, is not significantly different from the variability during the event window. However, this is just a logical reasoning. For a double check on the statistical results, non-parametric tests could be employed.

There is also another potential issue with the applied methodology. Here have been considered and tested stocks from different European markets. Instead, most of the literature and the discussion about the methodology is focused on U.S. data. Studies showed different stock properties even between different U.S. markets (e.g., NYSE and AMEX). Stock markets may differ on many dimensions, e.g., size, liquidity, trading volume, market-making mechanisms, accounting standards, securities regulation, investor protection, ownership concentration, and corporate governance. These characteristics can affect the statistical properties of stock returns.

Methodological literature conclusions regarding the performance of event-study tests that were here discussed are based on simulated samples from a single advanced market. The applicability of these conclusions to actual samples that combine stocks from multiple and diverse national markets is an unexplored empirical question. In such context commonly used test statistics may be less powerful and may be biased, leading to potentially incorrect inferences.

As already discussed, the biggest issue is about the long horizon abnormal returns. These may be not reliable, mainly for two reasons:

- *Prediction model.* Is the model used to predict normal returns correct and accurate? If it is even slightly incorrect and conceives small errors from the unknown real normal returns, the errors accumulated over time may distort the real cumulative abnormal returns, and so the conclusions.
- *Event period.* The extended event period is a complication in itself. Over long horizons of one- or two-years acquirer companies may be subject to a multitude of events, even multiple acquisitions. All the other events happening during the analyzed period influence the company's performance. This noise makes the long horizon

cumulative returns not exclusively attributable to the analyzed event. In this study, such limitation is expected to be extremely severe as most of the analyzed transactions do not exceed in value 5% of acquirer's market capitalization.

# APPENDIX 1

## EVENT STUDY USING DAILY STOCK RETURNS

To regress the normal returns is possible to use any time interval. Monthly and daily returns are the most commonly used data. The former would need a more extensive pre-event estimation period in order to collect enough data points for the regression to be significant. Going too much in the past can have a backlash. The estimated beta would consider past business mix and past levels of leverage together with past ratios of fixed costs, and these may not be representative of the current firm situation, thus lead to a prediction of incorrect normal returns. Therefore, daily returns are often used. Having a larger and more recent sample size allows obtaining a more accurate prediction of normal returns. However, the use of daily returns presents also some complications. As it has been already noticed in literature, the hypothesis made for linear regression does not hold using daily returns. Three main problems were recognized to be:

- 1) Non-normality of daily stock returns distribution. As clearly reported by Fama (1976), daily returns depart more from normality than monthly returns do. More in detail, the daily returns distribution present positive excess kurtosis, and so are more fat-tailed with respect to the normal distribution. It happens because daily returns are more likely to present extreme data, and kurtosis is very sensitive to the presence of outliers.
- 2) Non-synchronous trading, it happens when the stock and the reference index have different trading days. It may lead estimates of parameters to be biased and inconsistent.
- 3) Variance-estimation of the sample means excess returns is vital for tests of statistical significance. An incorrect estimation of the variance could lead to wrong confidence intervals and therefore, wrong conclusions about the null hypothesis. It may increase the chances of both types I and II errors. The former is known as false positive and refers to a situation when the null hypothesis is rejected when it is true. A correctly specified test statistic yields a Type I error probability equal to the assumed size of the test. The latter, on the contrary, is known as false-negative and happens when the null hypothesis is false but is not rejected. The ability to detect abnormal performance when it is present is known as the power of the test. The issues with variance estimation are:

- a) Serial dependence. Means that returns evolve nonrandomly; that is, they are correlated with their prior values. Autocorrelation can be caused by trends, mean reversion, partly by non-synchronous trading or even by more complex patterns.
- b) Cross-sectional dependence of the security-specific excess returns.
- c) Stationarity of daily variances. There is evidence that the variance of stock returns increases for days immediately around some events as earning announcements (Brown and Warner, 1985).

These violations of OLS regression assumptions could lead to biased and unreliable results regarding coefficients and standard errors. They are influencing, in turn, the test statistic results. Luckily in 1985, Brown and Warner run a simulation with actual data to examine problems induced by the use of daily returns in event study methodologies. They concluded that methodologies based on the OLS Market Model and standard parametric tests are well-specified under a variety of conditions, reinforcing the view that the use of daily data is straightforward.

The non-normality, sometimes referred to as a weak assumption, of daily returns has no significant impact on the OLS model as the sample size increases. Also, excess daily returns are not normal. However, according to the central limit theorem, the mean excess return in a cross-section of securities converges to normality as the number of sample securities increases. The authors found out that standard parametric tests for significance of the mean excess return are well-specified. Furthermore, even small samples of only five securities showed to have an acceptable probability of Type I error. At the same time, the non-parametric tests, which does not require the assumption of normality, showed a lower ability to detect abnormal returns, especially on long event periods.

As to the problem of non-synchronous trading, alternative procedures to the OLS for estimating the market model proved no relevant benefits. The variance issue is fundamental in testing for abnormal performance. The choice of variance estimator can affect both the specification and the power of the tests. There is evidence that the specification of the test statistic is improved by using simple procedures to adjust the estimated variance to take into account autocorrelation in the time-series of mean daily excess returns. It refers mainly to hypothesis tests over multi-day intervals; however, according to the study, the improvements are small and only apply in special cases.

Moreover, adjustments to account for dependence in the cross-section of excess returns has proven to have a potentially high cost. Namely, tests which assume cross-sectional dependence are only about half as powerful and no better specified than tests assuming independence.

Last but not least, the joint-test nature of the event study is another complication. Event studies test simultaneously whether abnormal returns are zero and whether the assumed model of expected returns is correct. Even if the power and specification can be statistically determined, the economic interpretation is not straightforward. Test specification cannot be discerned from the underlying assumptions about the estimation of expected returns.

## APPENDIX 2 TEST STATISTICS

The null hypothesis consists in the absence of abnormal returns. It will be considered valid until there is not enough evidence to reject it. The alternative hypothesis instead is that abnormal returns for luxury acquirers are positive. The single stock abnormal returns cannot be reliably tested given their distribution and variance issues. However, as previously mentioned, thanks to the central limit theorem (CLT), we can test the sample average abnormal returns. The CLT demonstrates that the distribution of the mean or the sum of  $n$  independent random variables tend to a distribution of a normal random variable when  $n$  becomes large. In this specific case, the distribution of the sample means excess returns converges to normality as the number of securities increases.

Nonetheless, there are some assumptions, the excess returns in the cross-section of securities must be independent and identically distributed (iid) drawings from a finite variance distribution. We can reasonably consider this assumption valid because the event day is not common for the firms. Furthermore, the involved firms are not all strictly from the same industry.

Two tests have been used to check for statistical significance of results. First, it was employed the simple cross-sectional test then also the time-series standard deviation test has been employed.

Let us first consider the test over the average abnormal return on Day 0; the null hypothesis is so defined:

$$H_0: AAR_0 = 0$$

While the alternative hypothesis is:

$$H_1: AAR_0 > 0$$

Besides the single day, we can also test the event windows over multiple days. The hypothesis about the cumulative average abnormal returns are defined as follows:

$$H_0: CAAR_{(T1,T2)} = 0$$

and:

$$H_1: CAAR_{(T1,T2)} > 0$$

For a given performance measure, a test statistic is computed and compared to its assumed distribution under the null hypothesis of null mean abnormal performance. The null hypothesis is then rejected if the test statistic exceeds a critical value, typically corresponding to the 5% or 1% tail.

Now is the turn to define the employed test statistics (Dutta, 2014). The first method assumes cross-sectional independence. A simple test for any given day  $t$  is therefore given by:

$$t_{CS_t} = \sqrt{N} \frac{AAR_t}{S_{AAR_t}}$$

Where  $N$  is the number of sample securities, and  $S_{AAR_t}$  is the standard deviation across firms at time  $t$ :

$$S_{AAR_t} = \sqrt{\frac{\sum_{i=1}^N (AR_{i,t} - AAR_t)^2}{N - 1}}$$

Consequently, the test statistic for a multi-day  $T_1$ - $T_2$  window is given by:

$$t_{CS(T1,T2)} = \sqrt{N} \frac{CAAR_{(T1,T2)}}{S_{CAAR(T1,T2)}}$$

Where  $S_{CAAR(T1,T2)}$  is the standard deviation of the cumulative abnormal returns across the sample:

$$S_{CAAR(T1,T2)} = \sqrt{\frac{\sum_{i=1}^N (CAR_{i,(T1,T2)} - CAAR_{(T1,T2)})^2}{N - 1}}$$

This test showed good power and specification for the Day 0 simulations made by Brown and Warner. Computing the percentage of 250 samples, each composed by 50 randomly selected securities, the null hypothesis was rejected only 4.4% of the time when it was true. With an added abnormal performance of 0.5%, 1%, and 2% the test has been rejected respectively 27.2%, 80.4% and 99.6% of the time. The significance level was set at 0.05, and the event dates were assigned randomly. In this study, the sample is smaller; however, also with smaller samples, this test statistic proved to be well specified. Furthermore, as it was previously noted, the considered sample departs from normality less than expected; increasing, therefore, the confidence in the specification and power of the test.

The results obtained, considering an 11-day interval (-5,+5) were less comforting. While the probability of false negatives dropped to 2.8%, the test rejected the null hypothesis only in the 13.2% of cases for an abnormal performance of 1% and in 37.2% of cases with an abnormal performance of 2%. In this case, the abnormal returns were randomly introduced with every day in the window having the same likelihood to be chosen. Even if the test decreased in power, and it does not explicitly incorporate autocorrelation in the mean daily excess returns, it still confirmed to be well-specified under various goodness of fit tests.

The second used t-statistic is the portfolio time-series standard deviation test. It incorporates a crude dependence adjustment taking into account cross-sectional dependence in the security-specific excess returns. A statistic of this form is widely used in event studies (Brown and Warner, 1985). If the average abnormal returns are independent, identically distributed, and normal, the t-statistic is distributed Student-t under the null hypothesis. Since the degrees of freedom exceeds 200, the test statistic is assumed to be unit normal. The test statistic is given by dividing any day  $t$  mean abnormal return over its estimated standard deviation. Where the standard deviation is estimated from the time-series of mean excess returns. As follows:

$$t_{CDA(0)} = \frac{AAR_t}{S_{AARt}}$$

Where:

$$S_{AARt} = \sqrt{\frac{\sum_{t=-248}^{t=-31} (AAR_t - \overline{AAR})^2}{217}}$$

and:

$$\overline{AAR} = \frac{\sum_{t=-248}^{t=-31} AAR_t}{218}$$

The standard deviation estimated using portfolio-level time-series data from the estimation period automatically reflects all the pairwise correlations between abnormal returns, thereby addressing cross-sectional dependence in the security-specific excess returns. For the multi-day windows, the t-statistic becomes:

$$t_{CDA(T_1, T_2)} = \frac{CAAR(T_1, T_2)}{\sqrt{(T_2 - T_1 + 1)} \hat{S}_{AARt}}$$

The denominator is proportional to the length of the considered period and assumes time-series independence of the one-period mean abnormal return.

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## SUMMARY

Mergers and acquisitions have been around for more than a century. A vast literature has been produced on the topic. Nonetheless, the academic debate is still open: “Do M&As create value (for bidder firms)?”. Numerous studies tried to answer this question, and several methodologies have been employed and refined over time. The results are contradictory, and the general conclusion is that M&As on average yield null abnormal returns.

This elaborate aim to check such conclusions regarding a particular industry. Luxury Personal Goods market skyrocketed in the last few decades. The owner and CEO of the largest luxury conglomerate, LVMH, is Bernard Arnault, namely the second richest person in the world, according to BBI (Bloomberg Billionaires Index). On July 16, 2019, he surpassed Microsoft co-founder Bill Gates and is currently the only non-tech entrepreneur on the podium of wealthiest people in the world. Furthermore, LVMH has been the most active group on corporate control market in the luxury industry.

The existing literature on M&As by luxury acquirers is few; this thesis aims to provide additional material to the debate. With the continuously positive performances, the industry is gaining increasing attention from the individual and institutional investors. Therefore, further research on the topic is needed not only to be able to make more robust conclusions but also to support the decisions by both potential acquirers and individual investors.

The first part of the elaborate explores the existing theory and literature on mergers and acquisitions. Moreover, the luxury industry is defined and analyzed in order to define the scope of the research.

M&A is a trendy topic nowadays. Nonetheless, a clear definition of the phenomenon urges before the discussion. M&A is the abbreviation of ‘Merger and Acquisition’ and is used to describe a large number of transactions. It commonly refers to any process where the ultimate beneficial ownership, and the respective control of a firm, are transferred from a subject (or a group of subjects) to another.

Even though the two terms are often used interchangeably, they have slightly different meanings. Both, as we said, presume a change in control. A merger conceptually refers to two entities becoming one. Whereas an acquisition implies just a change in ownership; therefore, as a result of a merger, there will be only one legal entity. While, after an acquisition, the two organizations can both continue to exist in their previous legal forms. The change would be just from the control and ownership perspective of the acquired company. Such definition corresponds to the offered by Singh (1971).

The types of M&As are then described and discussed according to the competitive relationship between the involved parties, deal structure, form of financing, status of the target and impact on EPS. M&A activity is documented since the end of the XIX century and presents a clear path of peaks and downturns. The timing and characteristics of each merger wave are explored before getting into the rationale behind the market for corporate control.

No single hypothesis is enough to cover all takeovers. The two prevailing theories are efficiency and empire-building theories. The two theories are opposite in their assumptions. The former assumes complete rationality and “good faith” of the decision-makers in maximizing the shareholder’s value through synergies. The latter, instead, has its roots in agency theory (Jensen and Meckling, 1976), which is concerned with the separation and collision of company owners and management interests.

The efficiency theory is, however, prevailing and is also the most cited by executives. Whenever a merger is announced, there is a high probability that synergies will be cited. Both operating and financial synergies are discussed before introducing a simple valuation of benefits model. The net present value of the deal for the bidder is measured as the difference of the economic benefit and the cost to achieve it (Myers, 1976). If the NPV is positive, the bidder’s share price will increase to reflect the new, higher, firm value.

As it can be easily noticed, it is the market that ultimately states whether the transaction creates value or not. Therefore, according to this methodology, we totally rely on the market's ability to determine the right prices for the stocks. As when the information of the merger is available to the investors, at the announcement date, we expect a change in stock prices to reflect the new prospects of the future cash flows. Doing so we implicitly accepted the efficient market hypothesis.

Market efficiency is a highly controversial topic in the literature with plenty of evidence shreds both in favor and against it. To cut to the chase, whether the markets are inefficient or the risk adjustment procedure inappropriate is an open debate. Fama and French (1993) argue that market anomalies can be explained as a manifestation of risk premiums. Conversely, Lakonishok, Shleifer, and Vishny (1994) claim that these phenomena are evidence of inefficient markets.

As no one has ever proved to be able to systematically beat the market, in this elaborate is accepted the semi-strong market efficiency hypothesis. Therefore, the market valuation is considered as the one reflecting all the past and also currently available information on the stock price.

Event studies are the most employed method in studying the effect of mergers. These studies are regarded as forward-looking and rely on efficient market hypothesis. Other two assumptions are unexpectedness of the event and the absence of other effects. Meaning that the event should not be anticipated before its announcement so that the firm's stock prices fully reflect the event effect at its announcement day. In addition, no other events should impact the stock prices of the surveyed firm during the event window.

Research on M&As has been extensive and often contradictory. The most studied and debated topic is whether these transactions create value or not. A common conclusion is that M&A, on average, fail to create value for acquiring firm's shareholders. This point is more controversial than it could appear. If mergers succeed or fail depends on the definition of "success". How do we evaluate an investment? We need a benchmark. This is the return an investor, in our case, the investor is the company, could earn on other investment opportunities of similar risk. A null abnormal return means that given the investment risk it has been earned exactly the required return. Therefore, it cannot be recognized as a failure in economic terms (Bruner, 2004).

Few studies have been published specifically on M&As in the luxury industry. Among others, we can cite Meinshausen and Schiereck (201) and Konigs and Schiereck (2008). The results of the two papers are mostly identical; both found highly significant positive abnormal returns to acquiring shareholders. Moreover, according to them, the small profitable companies benefit most from M&As while luxury conglomerates that act as frequent acquirers do not, on average, significantly increase shareholder wealth.

Luxury is a relative concept. Kemp (1998) defined luxury as anything that is desirable and more than necessary and ordinary, but the concepts of what is ordinary and desirable are personal. The scope of the definition must be reduced to be useful in an economic study. Microeconomy defines all marketable goods as luxury if their demand increases more than proportionally to income rises. However, even this scope is too broad as it refers to categories of goods like cars or air conditioners in general. There is a need to define a sub-category within the different type of goods.

Here comes the so-called managerial understanding of luxury, allowing distinctions within a product category: luxury products exceed what is necessary and ordinary compared to other products in their category. With this definition, we can state that a Rolls-Royce is a luxury car while a Fiat is not. What differentiates a Rolls-Royce from a Fiat is the symbolism, the quality, the aesthetics, the rarity, the extra-ordinariness, and of course the price.

Still, these points of differentiation are not objective and universal. They are not boolean, but continuum variables; and most importantly, their value does not depend as much on objective characteristics of the products as on the consumers' subjective perception of them.

Bain & Company, together with Fondazione Altagamma, publish every year a global luxury market study. They estimated that the global luxury market worth EUR 1.171 Billion in 2018 (D'arpizio and Levato, 2019). The market was divided into several categories: personal luxury goods, luxury cars, luxury hospitality, fine wines & spirits, gourmet food & fine dining, fine art, high-quality design furniture & homeware, private jets & yachts, and luxury cruises. The top three contribution segments were luxury cars with EUR 495 billion (42.3%), personal luxury goods with EUR 260 billion (22.2%) and luxury hospitality with EUR 190 billion (16.4%).

This study focuses on the personal luxury goods (PLG), such products are employed by the consumers to manage their self-image, and by doing so, they build up a personal connection with these goods. More specifically, speaking of personal luxury goods, we refer to apparel, jewelry, shoes, bags, watches, and cosmetics.

From 1996, luxury personal goods market more than tripled, increasing from 76 to 244 billion in 20 years. Throughout the whole period, the growth has been constant, with a slowdown of only a few years corresponding the dot com bubble and a quick recovery from the subprime crisis in just two

years. In the same study, the PLG market is forecasted to grow to a value of EUR 320-365 billion by 2025.

As we have seen, two of the primary connotations of luxury are rarity and extra-ordinariness. Such characteristics limit the size of luxury manufacturers. Increasing size would mean increasing production volumes; this will, in turn, limit rarity and extra-ordinariness. Unlike most industries here size is less relevant and could have a negative impact, what matters most is the reputation and brand awareness. Luxury companies are generally small or medium-sized (SME) enterprises. That is why it is more difficult to enjoy economies of scale in this elitist industry for a solo brand. Big conglomerates still reach economies of scale through large brand portfolios made up of many small individual companies. Another common practice in the industry to drag down costs is subcontracting.

Over the years, the PLG industry concentrated around four poles. Now four big groups own more than 100 brands. These are Louis Vuitton Moët Hennessy (LVMH), Kering, Compagnie Financière Richemont and Swatch. The former two are French and are more focused on apparel and accessories, while the last two are Swiss and holds mainly jewelry and watches brands. These conglomerates are focused on the luxury industry and are both vertically and horizontally integrated. Vertical integration allows to better secure supplies and control quality, which is one of the critical aspects of the industry. Horizontal integration instead allows taking advantage of economies of scale, can provide growth and allows for diversification as luxury is a multi-industry concept.

Besides these four poles, there are two more that are often neglected when speaking about luxury. These are Estée Lauder and L'Oréal. Both are present in the 2018 top 10 luxury companies list made by Deloitte Global Powers of Luxury Goods, respectively at the second and seventh place. Beauty luxury market cannot be ignored as, according to Bain Altagamma study, is worth EUR 56 billion in 2018. That is more than the luxury bags market, EUR 51 billion, and second only to apparel, EUR 60 billion, in the PLG breakdown.

In the last two years, luxury has seen a considerable increase in M&A activity. In 2017 the PLG market recorded an increase by five deals compared to the previous year. In 2018 the increase more than doubled rising to count eleven deals. In the same year, the PLG accounted for 55% of total deals in the luxury and fashion segment.

Recently the average deal value of the transactions has decreased. Small targets (USD 0 to 50 million) accounted for 55% and 65% of all targets in 2017 and 2018 respectively. The deduction is that the continuous consolidation in F&L industry is moving investments toward smaller sized companies. Here investors plan to boost performance by implementing internationalization, performance improvement, and change management strategies<sup>23</sup>.

According to the few pieces of literature on the topic, M&As in the luxury industry are beneficial to bidders. Konigs and Schiereck (2008), commented as follows the results of their study on luxury goods: “Positive announcement effects of M&A efforts aiming at the enlargement of market power and brand portfolios as well as the amelioration of firm efficiency are largely accordable with other authors’ conclusions on M&A studies respecting the ordinary consumer goods retail segment. “

Luxury companies cannot rely on size to reach economies of scale as two of the *sine qua non* conditions for luxury is rarity and extraordinariness. By definition, anything mass-produced is neither rare nor extraordinary. The agglomeration of large brand portfolios can be interpreted as an alternative way to reach higher levels of cost-efficiency. Luxury conglomerates that followed a strategy of acquisitions (LVMH, L’Oréal, Kering, Richemont, and Swatch) experienced remarkable growth in stock price and market capitalization over the past decade. The central hypothesis of the elaborate is, therefore stated as follows:

*H: Luxury acquirers experience positive abnormal returns at the M&A announcement date*

The hypothesis is verified through a classic event study. Finance theory suggests that capital markets reflect all available information about firms in the firms' stock prices. Given this basic premise, one can study how a particular event changes a firm's prospects by quantifying the impact of the event on the firm's stock. The change is quantified deducting the returns that would have been realized if the analyzed event would not have taken place (normal, or expected, returns) from the actual returns of the stocks. While the actual returns can be empirically observed, the normal returns need to be estimated.

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<sup>23</sup> Deloitte Fashion & Luxury Private Equity and Investor Survey 2019 – Global Report

There are several ways to estimate normal returns. In this study has been used the market model adjusted returns. It is considered to be the most frequent and accredited practice to obtain expected returns (Brown and Warner, 1980).

The study is performed only on the acquisitions made by European firms involved in the production, branding, and distribution of luxury personal goods considering the past 11 years. Only the companies listed on European stock markets are covered. The sample includes all the completed M&A transactions for which was disclosed at least the price and has been announced between January 1, 2008, and January 1, 2019. In all, 31 transactions are analyzed without any limitations on the type of target companies.

The methodology used to calculate, and test abnormal returns in the short horizon, is the one described by Brown and Warner (1985). Long-horizon abnormal returns were interpreted accordingly to Kothari and Warner (1997), (2004). Finally, the distribution of both short and long-horizon abnormal returns was analyzed, taking into account Hazelkorn, Zenner, and Shivdasani (2004).

Every firm, according to its market capitalization, was linked to the corresponding national stock index. LVMH is a French blue-chip stock and was linked to CAC 40, Tod's is an Italian mid-cap firm and was linked to FTSE Italia Mid Cap Index etcetera. Small and mid-sized firms showed a higher significance and better fit when regressed on their size index rather than on the main national index<sup>24</sup>. The adjusted closing prices were collected from Bloomberg database. These were used to regress the stock's beta and alfa during the regression period. The regression is considered to start 249 days prior to the event and to finish 31 days before the event.

The study tests several event windows surrounding Day 0. A 5-day window, starting two days before and ending two days after the announcement captures market reaction to the deal. As important details often become public after the initial announcement, it is considered an 11- and a 21-day window, both taken symmetrically around the announcement day. To check eventual anticipation to the deal returns occurring five and ten days prior and excluding Day 0 are analyzed.

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<sup>24</sup> The regression of mid and small stock's returns against the national blue-chip index were still statistically significant (as generally these indexes are considered to well represent national market movements) but presented lower values or  $R^2$  as compared to regressions against 'same cap' index.

In the same way, the periods of five- and ten-days subsequent Day 0 are considered to verify the reaction to the deal. The long-run perspective is analyzed to consider execution and post-merger integration as both factors are critical to the success of a transaction. More precisely excess returns have been calculated over one-year and two-years horizons following the transaction announcement. However, differently from short term excess returns, the long-term ones are calculated relative to an index of companies in the acquirer industry (rather than the national index). That to check whether the companies involved in M&A performed better than their industry or not.

The data about M&A deals were collected from Zephyr and double-checked with Eikon Thomson Reuters. The research of relevant M&As on Zephyr started from a number of 335.195 transactions made by listed acquirers. Of these, only 179.216 were strictly mergers or acquisitions. The number of deals decreased to 146.756 when filtering for the time period and deal status and dropped to 23.430 after selecting only European acquirers. Filters on the business descriptions and sector reduced the number of relevant deals to 74. However, most of the transactions were discarded because of a complete lack of disclosure besides the name of the involved parties and the announcement date, reducing the final sample to 31 transactions.

The PLG industry is not an official industry and therefore has no industry code to rely on. Instead of the industry code business description and major sectors filtering were used to circumscribe the scope of the bidders. The limited sample size was foreseeable as most of the companies involved in luxury are private, and so are most of the transactions. Data about M&As cannot be handpicked as they are mostly stored in databases such as Zephyr. Luckily every bidder, target, and the transaction have a description, making the filtering by keywords reliable.

The average short-term abnormal return on Day 0 is +0.73%. More than 70% of transactions had a positive reaction on the announcement day. However, the coefficient of variability is high: 1.94. The regression results are summarized in the following table:

<b>Parameter</b>	<b>Average</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	<b>CV</b>
<b>AR<sub>0</sub></b>	0.73%	0.33%	4.19%	-1.83%	1.94
<b>β</b>	0.90	0.88	1.61	0.35	0.31
<b>T-stat</b>	13.65	13.96	22.49	2.13	0.38
<b>α</b>	0.00	0.00	0.00	0.00	1.35
<b>T-stat</b>	0.59	0.84	1.70	-0.07	1.18

<b>R<sup>2</sup></b>	44.12%	47.45%	70.07%	2.06%	0.42
<b>CAR<sub>(-2,+2)</sub></b>	1.65%	1.88%	12.02%	-3.10%	1.79
<b>CAR<sub>(-10,+10)</sub></b>	1.42%	1.54%	-13.56%	-7.71%	3.76

*Short-term market model regression results [source: Author]*

Surprisingly, all the mean estimates assumed values much closer to normality than expected. Comparing these data to the one obtained by Brown and Warner yields stunning results. The estimates were much more similar, except the standard deviation, to the cross-sectional averages over the 250 samples made up each of 50 randomly selected stocks than to the simple average of 12.500 stocks:

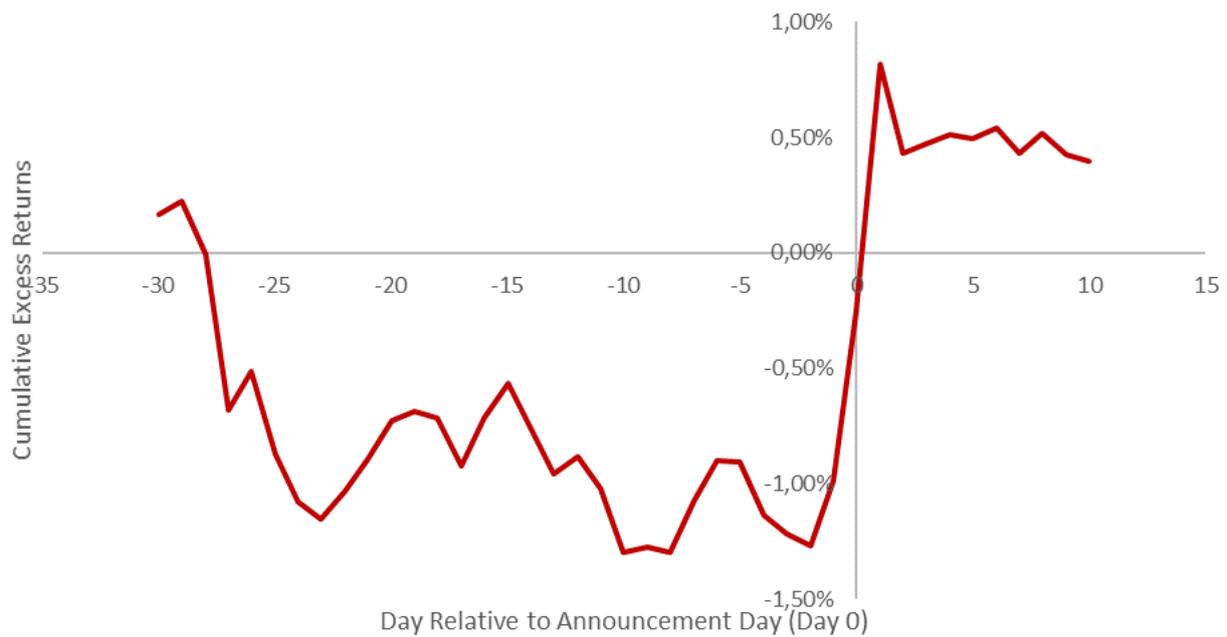
<b>Estimate</b>	<b>B&amp;W sample wide means</b>	<b>B&amp;W cross-sectional means</b>	<b>Europe PLG sample means</b>
<b>Mean</b>	0.0000	-0.0001	0.0000
<b>Standard Deviation</b>	0.0253	0.0038	0.0120
<b>Skewness</b>	1.01	0.10	0.23
<b>Kurtosis</b>	6.80	3.10	2.95

*Data distribution comparison with Brown and warner 1985 study [source: Author]*

The high goodness of fit and closeness to the normal distribution of excess returns increases the confidence and reliability in using a parametric statistical test to check the significance of results.

The figure below shows acquirer's cumulative average excess stock returns in the proximity of the announcement date. Starting from 30 days prior to the announcement (Day 0) and ending ten days afterward. It is interesting to note that this result is exactly opposite to the one obtained by Hazelkorn et al. (2004) on a large sample of US acquirers. In his study, the average cumulative excess returns were slightly positive and close to zero before the announcement date. In ten days following the announcement, the return dropped to -1%. The pattern showed in Figure 13 is reversed, before Day 0, the average cumulative excess returns are negative, oscillating roughly between -0.50 % and -1.25%. After Day 0 the returns goes suddenly up by +2% and seems to stabilize at the value close to 0.5% a few days after the event took place. The positive shock on the announcement date is remarkable and cannot be ignored.

These results are fascinating and could indicate that the market recognizes luxury firms a superior ability in creating value through M&As. Furthermore, the returns on average seem to follow a random path till day zero, proving therefore reasonable the non-expectancy hypothesis of the event.

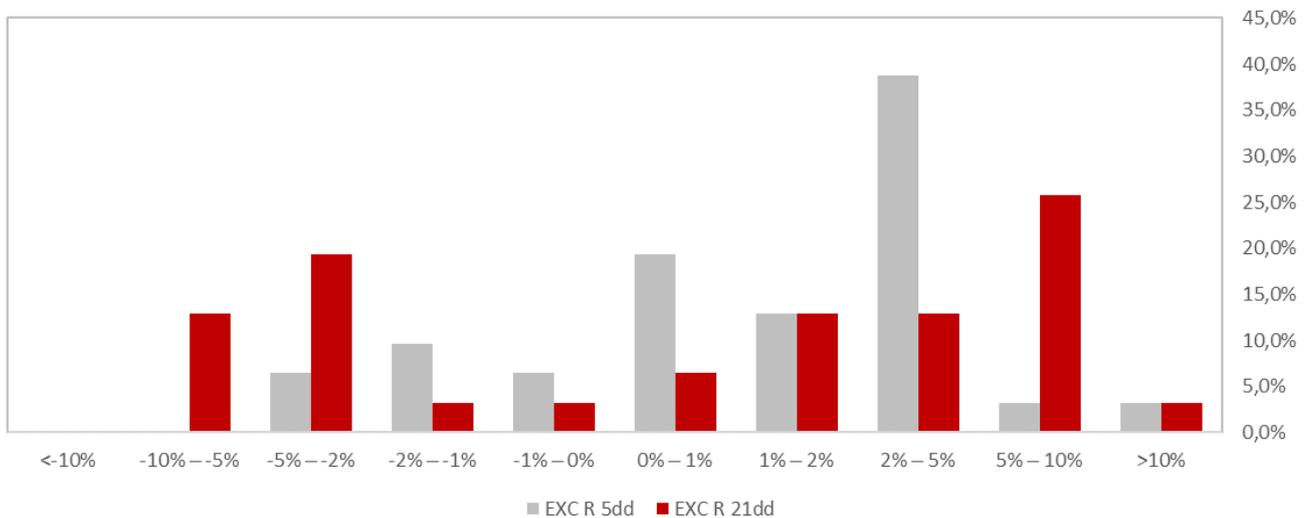


*Average cumulative excess acquiror stock returns relative to announcement date of M&A transactions (-30;+10)  
[source: Author]*

The bar chart shows the variation in the distribution of short-term acquirer excess returns. The average and median excess returns are both positive, for five days window they worth respectively 1.65% and 1.88%. The results for the 21 days window are slightly lower but almost identical with an average of 1.42% and a median of 1.54%, which means that on average shareholders of luxury acquirers have benefitted, in the short term, from an M&A deal. Most of broader studies reported average and excess returns next to zero, concluding that M&As in average fail to create value.

Another sign indicating better than the average performance of luxury acquirers is the distribution of results. The distribution of excess returns in the short term is seemingly skewed to the right, on the positive side. In the five days window, 77% of the returns were greater than zero. In the same period, more than 40% of the transaction showed a positive excess return higher than 2%. On the 21 days window, the portion of positive returns diminished but still represented the majority of data amounting to 61%.

The concentration of returns near the mean and median values is low. It would be therefore misleading to state that the typical experience of a luxury acquirer is that of gaining about 1.5% in excess returns in the period of 5 or 21 days surrounding an acquisition announcement.



*Distribution of short-term abnormal returns for acquirers [source: Author]*

The Crude Dependence Adjustment Test (CDA) and the Cross-Sectional Standard Deviation Test (CSS) were employed to check the significance of the results:

Days	-10;-1	-5;-1	0	-2;+2	-5;+5	-10;+10	+1;+5	+1;+10
<b>Average Return</b>	0.04%	-0.09%	0.73%	1.65%	1.39%	1.42%	0.74%	0.65%
<b>tcSS</b>	0.065	-0.254	2.899***	3.106***	1.824**	1.482*	1.101	0.927
<b>tcDA</b>	0.056	-0.172	3.276***	3.300***	1.877**	1.386*	1.492*	0.917

*Statistical significance of short-term abnormal returns [source: Author]*

\*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%

The positive average abnormal return of 0.73% at Day 0 is statistically significant at any commonly used significance level. The t-statistic is higher than the critical value; therefore, we can reject the null hypothesis of null abnormal returns on Day 0. Accordingly, the alternative hypothesis of a positive abnormal return is accepted. The same reasoning can be applied to the (-2,+2) window with a cumulative average abnormal return of +1.65%. Therefore, the central hypothesis of the study is confirmed: PLG acquirers do experience positive abnormal returns at the announcement of an M&A.

The (-5,+5) event window is still significant at the 5% level with a 1.39% cumulative return. Also, the results of the (-10,+10) window are significant for both test statistics, but only at the 10% level. The five days post-event window is not significant using the cross-sectional test, however using the t statistic with a crude dependence adjustment yields a result significant at the 10% level. It is suggesting that the abnormal returns were not realized only on Day 0 but could have also happened on the few subsequent days.

A longer post event period of 10 days proved the cumulative average abnormal return not being different from zero. Such a result is consistent with the market efficiency assumption. According to the data, we can state that the market reacted positively at the event announcement and incorporated the new information in the stock prices relatively quickly. The pre-event windows of five and ten days were also tested to check whether the market anticipated the deal announcement. As it can be noticed, the cumulative average returns before the event date were close to zero and non-significantly different from such value.

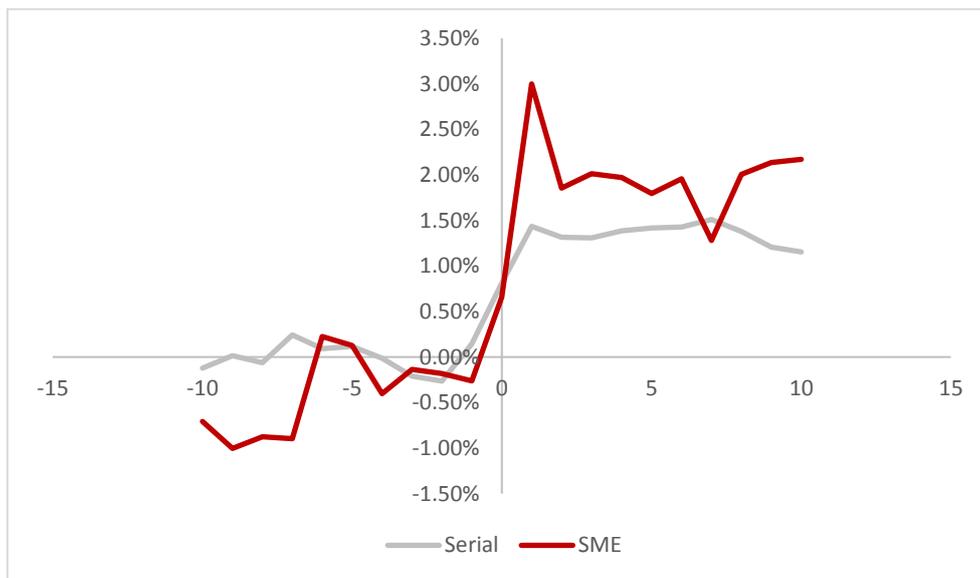
Besides the positive abnormal returns on the announcement day, both Meinshausen and Schiereck, (2011), and Konigs and Schiereck (2008) noticed that the conglomerate acquirers did not significantly increase shareholder wealth. According to them, small and medium luxury companies benefitted most from the acquisitions. In order to verify this statement, the data of this study were clustered in two groups; one comprising the serial acquirers (previously defined as main players), and the other comprising the acquisitions made by small and medium enterprises plus Burberry.

<b>Days</b>	<b>CAAR<sub>SER</sub></b>	<b>t<sub>CSS</sub></b>	<b>t<sub>CDA</sub></b>	<b>CAAR<sub>SME</sub></b>	<b>t<sub>CSS</sub></b>	<b>t<sub>CDA</sub></b>
<b>-10;-1</b>	0,15%	0,238	0,192	-0,26%	-0,174	-0,168
<b>-5;-1</b>	0,05%	0,145	0,101	-0,49%	-0,628	-0,440
<b>0</b>	0,66%	2,077**	2,777***	0,92%	2,616**	1,855**
<b>-2;+2</b>	1,53%	3,354***	2,852***	1,99%	1,196**	1,793**
<b>-5;+5</b>	1,33%	1,790*	1,671**	1,57%	0,643	0,952
<b>-10;+10</b>	1,16%	1,153	1,054	2,17%	0,885	0,953
<b>+1;+5</b>	0,61%	0,969	1,136	1,14%	0,567	1,023
<b>+1;+10</b>	0,35%	0,524	0,457	1,51%	0,754	0,962

*Comparison of the abnormal returns between serial acquirers and SMEs [source: Author]*

\*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%

Acquisitions made by the non-serial acquirers had a slightly higher cumulative average abnormal returns, especially in the days following the announcement. However, both groups showed significantly positive abnormal returns on day zero and the surrounding windows. Instead, the abnormal returns preceding and following the event, same as before, were not statistically significant. Contrary to the previous studies, no difference was found between the performance of conglomerates and smaller independent acquirers. The former even experienced higher levels of significance, but that may be due to a larger sample.



*Average cumulative stock returns of serial and small acquirers (-10; +10) [source: Author]*

It is possible to break down the serial acquirers further to check whether a single conglomerate drove the positive performance. To that purpose, the acquisitions made by LVMH, L'Oréal, and Kering were analyzed. Their average cumulative abnormal returns are shown in Figure 17.

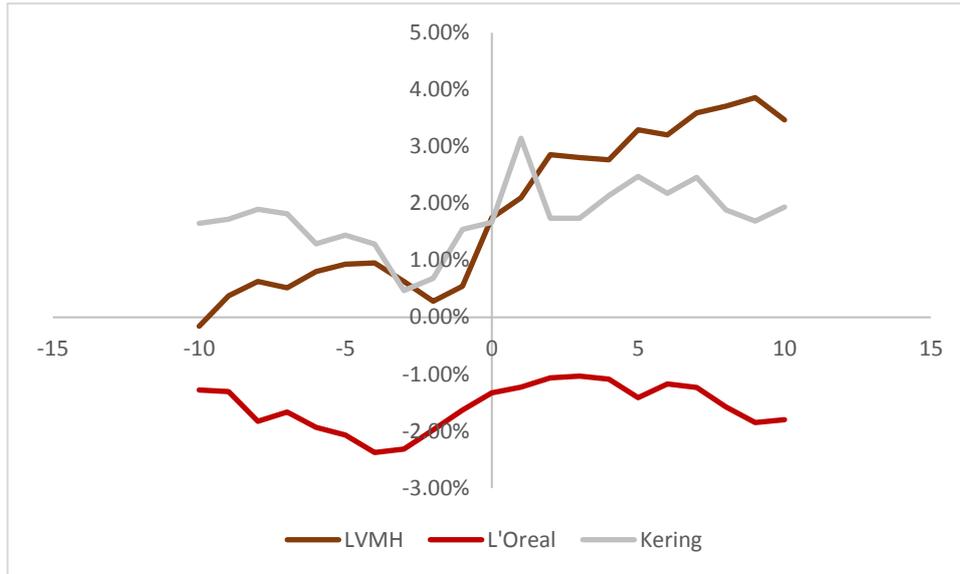


Figure 18: Cumulative average abnormal return of the main serial acquirers (-10;+10) [source: Author]

LVMH and Kering experienced remarkably positive cumulative abnormal returns surrounding the announcement day. The same cannot be said about L'Oréal, even though there was a positive movement on day zero, the abnormal returns remained steadily negative. However, the test of significance shows a slightly different story:

Days	CAAR <sub>LV</sub>	t <sub>CSS</sub>	t <sub>CDA</sub>	CAAR <sub>LOR</sub>	t <sub>CSS</sub>	t <sub>CDA</sub>
<b>-10,-1</b>	0,55%	0,948	0,378	-1,63%	-1,156	-1,646
<b>-5,-1</b>	-0,26%	-0,687	-0,250	0,30%	0,323	0,429
<b>0</b>	1,20%	2,239**	2,613***	0,30%	0,716	0,961
<b>-2,+2</b>	2,22%	4,378***	2,168**	1,25%	2,839**	1,787**
<b>-5,+5</b>	2,49%	1,821*	1,635*	0,52%	0,397	0,500
<b>-10,+10</b>	3,47%	2,331**	1,650*	-1,80%	-1,130	-1,254
<b>+1,+5</b>	1,55%	1,240	1,507*	-0,08%	-0,108	-0,117
<b>+1,+10</b>	1,72%	1,544*	1,186	-0,47%	-0,568	-0,475

Table 21: LVMH and L'Oréal abnormal returns [source: Author]

\*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%

LVMH showed highly significant positive abnormal returns on the announcement day and the windows surrounding it. The abnormal returns realized by LVMH, contrary to the rest of the cases, continued to grow also in the days following the transaction announcement. The returns were significant also in the (+1;+5) and (+1+10) windows.

L'Oréal, as expected, experienced much lower abnormal returns. Nonetheless, the +1.25% abnormal return in the five days windows was found to be significant at the 5% level by both t-statistics. The rest of the returns were not statistically significant. Kering experienced positive abnormal returns in all the considered periods. However, none of them was significantly different from zero. It can be mainly attributed to the smaller sample size and higher volatility of abnormal returns.

Another typical analysis in M&A studies regards the possible drivers of value. The abnormal returns on the event day were found to be positive. Through a regression analysis, we can check whether there is a correlation between the value created and some explanatory variables. The existing literature does not analyze factors explaining M&A success of luxury firms. Here are proposed some explanatory variables already used in other industries for the same purpose. The proposed variables are profitability (bidder's ROE), size (deal value), cross-border as opposed to domestic acquisitions and diversification as opposed to focus deals.

All the just mentioned characteristics were employed in a multivariate cross-sectional regression as independent variables in order to explain the abnormal returns on Day 0. The multicollinearity was controlled for using the variance inflation factor while the heteroscedasticity was controlled for using the Breusch-Pagan and Abridged White's tests.

	<b>Coefficients</b>	<b>Std Err</b>	<b>Stat t</b>	<b>p-value</b>	<b>VIF</b>
<b>Intercept</b>	0,0117	0,0080	1,4659	0,1551	
<b>ROE</b>	0,0749	0,0281	2,6671	0,0132	1,0422
<b>Crossborder</b>	-0,0131	0,0059	-2,2337	0,0347	1,1170
<b>Experience</b>	-0,0064	0,0045	-1,4141	0,1697	1,1259
<b>Deal Value</b>	0,0000	0,0000	1,3746	0,1815	1,1587
<b>Diversivication</b>	-0,0080	0,0053	-1,5119	0,1431	1,0334

*Results of the multiple regression analysis [source: Author]*

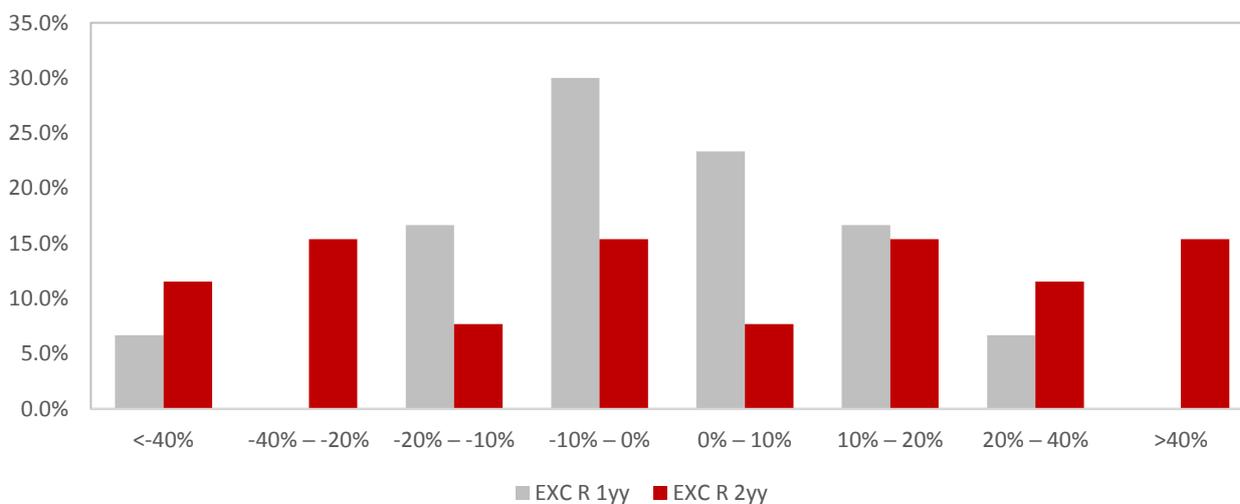
The model has a reasonable explanatory power: R<sup>2</sup> is 44.99% while the adjusted R<sup>2</sup> explains 33.98% of abnormal returns. Moreover, the F-test is significant at the 1% level.

From the column of p-values, it can be easily noted that only two coefficients are statistically significant at the five percent level (ROE and cross border deals). The rest are not significant, even at a ten percent level. The measure of profitability, being positively related to the abnormal returns,

behaved as expected. It seems that the market reacts to the deal according to the relative efficiency theory also in the luxury industry.

Cross border deals, contrary to expectations, had a significant negative impact on value creation. The cultural difference between countries could be an obstacle to the integration process and thus, value creation. In the banking sector, for example, more shareholders value is created when target and bidder operate in a related geographical region (Houston and Ryngaert, 1997).

Finally, the distribution of long-horizon abnormal returns is analyzed. The bar chart below displays the distribution of long-term industry-adjusted excess returns for acquirers on a period of 1 and two years after the announcement date. Over longer windows, the acquirers tended to underperform with respect to the expected returns. The median 1- and 2-years returns were respectively of -0.79% and -3.43%, both much lower than their short-term equivalents. However, the key to interpreting the data is in the variability.



*Distribution of long-term abnormal returns for acquirers [source: Author]*

It is evident how the portion of positive data plummet from more than 60% in the short term to less than 50% in the long term. That means part of the transactions initially well received by the market turned out to perform poorly in the long run.

These findings are contrary to the executive’s belief that the short-term stock price impact of a transaction is a temporary phenomenon that may be easily reversed in the long run. In fact, in most of the cases, the initial performance tends to persist over the long run. Nonetheless, it is possible to

reverse markets short term reaction to the deal. However, the data suggest that most likely, it is not going to happen in the direction wished by the executives — negative changes outnumbered by far the positive ones. More specifically, while 43% of the short-term positive abnormal returns turned out to be negative after one year, the opposite happened only in 14% of the cases.