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"MANAGING THE COMPANY'S FINANCIAL DISTRESS: EVIDENCE FROM CONSOB'S SURVEILLANCE LISTS"

RELATORE:

CH.MO PROF. FABIO BUTTIGNON

LAUREANDA: ORJOLA SHULI

MATRICOLA N. 1207980

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To my mom, my dad,

my sister, my grandma.

TABLE OF CONTENTS

INTRODUCTION **10**

CHAPTER 1: CORPORATE CRISIS STATUS **12**

1.1. Introduction 12
1.2. Definition and concept 13
1.2.1. Decline 13
1.2.2. Crisis 14
1.3. Symptoms and causes of crisis 17
1.4. Stages of crisis development 20
1.5. Methods of distress risk assessment 24
1.5.1. Methods based on intuition 24
1.5.2. Methods based on ratio analysis 26
1.5.3. Methods based on models 30
1.5.4. Methods based on capital markets 32

CHAPTER 2: MANAGING THE CORPORATE TURNAROUND PROCESS **38**

2.1. Introduction 38
2.2. Out-of-court turnaround strategies 39
2.2.1. Turnaround process models 41
2.2.2. Managerial restructuring 46
2.2.3. Operational restructuring 48
2.2.4. Portfolio restructuring 50
2.2.5. Financial restructuring 52
2.3. Market reaction to turnaround announcements 54
2.4. In-court turnaround strategies 57
2.5. The Italian legislative framework 59
2.5.1. Certificate plan 61
2.5.2. Debt restructuring agreement 63
2.5.3. Composition with creditors 64
2.5.4. Filing for bankruptcy 66

CHAPTER 3: EMPIRICAL ANALYSIS: RATIONALE AND METHODOLOGY...... 68
3.1. Introduction 68
3.2. CONSOB and the supervision of listed companies........ 69
3.3. Overview of the black list and grey list monitored by CONSOB 2009-2020........ 72
3.4. Empirical analysis: rationale and methodology 86
3.4.1 Zucchi: structure and history........ 87
3.4.2 Beghelli: structure and history 90
3.4.3 Pininfarina: structure and history........ 93

CHAPTER 4: EMPIRICAL ANALYSIS 96
4.1. Introduction 96
4.2. Zucchi........ 96
4.2.1. Causes of distress and financial manoeuvre 97
4.2.2. Sales trend and operating profitability........ 103
4.2.3. Invested capital 109
4.2.4. Capital structure 116
4.2.5. Market capitalization........ 120
4.2.6. Current developments 121
4.2.7. Considerations on the case study 123
4.3. Beghelli 127
4.3.1. Causes of distress and financial manoeuvre 127
4.3.2. Sales trend and operating profitability........ 134
4.3.3. Invested capital 141
4.3.4. Capital structure 148
4.3.5. Market capitalization........ 152
4.3.6. Current developments 153
4.3.7. Considerations on the case study 155
4.4. Pininfarina 159
4.4.1. Causes of distress and financial manoeuvre 159
4.4.2. Sales trend and operating profitability........ 166
4.4.3. Invested capital 172
4.4.4. Capital structure 178
4.4.5. Market capitalization........ 182
4.4.6. Current developments 183
4.4.7. Considerations on the case study 185

SUMMARY AND CONCLUSIONS 189

APPENDIX 196

REFERENCES 206

INTRODUCTION

The phenomenon of corporate crisis represents a permanent component of the modern economic system and, as in all market economies, the life of the company takes place with the physiological alternation of positive and negative phases. To this end, the concept of creative destruction perfectly describes the essential nature of capitalism in its ongoing process by which innovation and growth leads new companies to replace outdated ones. Besides, this phenomenon goes often beyond the concept of cyclicality since distress originating, for instance, from structural issues requires constant attention to adjustments. Therefore, strategic objectives and stability, even when they appear firmly achieved, call for a continuous restructuring of the company. In fact, firms that do not gradually adapt to the changing environment and competition, or do not realize some internal processes of deterioration, could degenerate into a pathological stage of crisis.

To this regard, the management will have the delicate task of promptly identifying any sign of financial or operating weaknesses and wisely analyze their underlying causes in order to be in the position to design a proper turnaround process. Thus, an early and adequate restructuring intervention, when the crisis has not severely affected the business solvency yet, increase both the available tools and the probability of success. Taking a step backwards, many scholars have attempted to conceptualize the turnaround process through descriptive patterns in order to discern its main stages. Despite the different studies conducted, they all share the business going concern concept. Indeed, an essential precondition for corporate restructuring shall consist of the viability of the business, namely it requires the firm's going concern value to be substantially higher than its liquidation value. Conversely, if the business is not viable, a turnaround strategy would only delay the unavoidable demise of the company and absorb substantial time and resources. To this end, the efficiency of any bankruptcy system can be judged by its ability to adequately identify and provide for the restructuring of companies that arguably should be able to survive (Altman et al. 2019).

In this regard, the Italian insolvency framework ensures a good level of completeness and detail in meeting the diverse needs of both the creditors and the company, with instruments characterized by an increasing degree of intervention of the legislator, depending on the individual case and its severity. There has been, however, a profound change in the philosophy of the Italian corporate restructuring procedures thanks to various legislative reforms which have gradually provided for contractual and quasi-contractual agreements, characterized by a

reduced role of courts in the management of business distress, a greater orientation towards the recovery and maintenance of the firm and an increased involvement of creditors in the restructuring process. Furthermore, as regards capital markets, the Italian legislator has invested Banca d'Italia and CONSOB with the supervisory authority on markets and financial intermediaries in order to improve transparency, protect investors and guarantee the sound development of the industrial system and the market itself. In particular, CONSOB carries out its role by making use of two specific tools: the black and the grey lists. The inclusion in these "watch lists" entails the provision of periodical addition information, namely monthly or quarterly, which is triggered by the opinion of external auditors. For the purpose of this study, a preliminary analysis will deepen into the overview of companies included in the lists from 2009 to date, with an eye to shifts from one list to the other and the reasons for their removal from the surveillance lists, and then it will focus on the companies currently under observation, referring to their fundamental characteristics and providing a thorough analysis of three case studies.

As concerns the structure of this dissertation, the first chapter will cover the main characteristics of the corporate distress status, with a particular attention to its symptoms and causes, together with an overview of the most common methods to investigate the downturn spiral of the crisis. After an initial review of turnaround process models, the second chapter will sift through informal, hybrid and formal restructuring procedures, with final focus on Italian legislative tools. The third chapter will further investigate the role of CONSOB as a supervision authority and, after an overview of companies subject to additional disclosure requirements between 2009 and 2020, it will introduce the basis of the empirical analysis and will, therefore, present the description of each of the companies selected, namely Zucchi, Beghelli and Pininfarina. Finally, the fourth chapter will delve into the analysis focusing, for each case study, on the causes of distress, the turnaround measures implemented and their actual impact on financial statements.

CHAPTER 1: CORPORATE CRISIS STATUS

1.1. Introduction

Over the years, the phenomenon of corporate crisis has attained an even greater relevance in economic fields. Indeed, the recent economic and financial crisis has provided evidence of the pervasiveness of this topic, which may even affect the most solid business.
Corporate crisis is considered to be, therefore, a permanent component of the modern production system, wherein mature companies are physiologically affected by the alternation of positive and negative phases. Conversely, the management should be able to appropriately detect the first warning signs of decline in order to prevent a so-called incubation of the crisis and its degeneration into a pathological stage. The analysis of the corporate crisis status in all its aspects is essential in laying the groundwork for the definition of a proper intervention plan.

The first chapter of this thesis will cover the main aspects concerning the corporate crisis status in order to provide an overview of the phenomenon. First of all, it is necessary to recall how the corporate finance literature has commonly defined the crisis. *Paragraph 1.2* attempts this task by providing a first distinction between decline and crisis or distress and, then, a further differentiation between economic and financial distress.
Corporate crisis will be, subsequently, deepened referring to its symptoms and causes. While premonitions represent warning signals internal to the company, the crisis causes have many facets. Their investigation will be carried out adopting a subjective and objective approach and, on the basis of the latter, a further classification will present internal and external corporate crisis causes (*Paragraph 1.3*). Thus, in practice, what appears is that in most situations a chain of interrelated multiple causes can be identified in distressed firms.
Corporate distress may evolve differently from business to business but, indeed, a common developmental path can be delineated. If timely actions have not been implemented, the company could get through different phases, moving from a potential to a reversible crisis and, lastly, to an irreversible distress (*Paragraph 1.4*).
In this context, models on distress risk assessment constitute indispensable tools to prevent and investigate the downturn spiral of the crisis. An overview of the most common methods will be given in the last paragraph of this chapter (*Paragraph 1.5*).

Corporate crisis identification methods will be grouped into four main categories depending on their characteristics and results: methods based on intuition, ratio analysis, models and capital markets.

1.2. Definition and concept

As Guatri (1995) asserts, the organizational literature has just assumed and never given a universal and complete definition of the term "crisis". Until recently, the research focused on successful organizations and the identification of their success factors have received far more attention with respect to organizational decline (Cater & Schwab 2008). In fact, in relation to the crisis theme, the main concern has been the classification of its components, causes, consequences and its possible remedies (Sirleo 2009).

Riva et al. (2008) defined the onset of corporate crisis as the outbreak of imbalances and inefficiencies, the reduction of productivity and turnover, a contraction of profits or even the incurrence of losses with the consequent and gradual erosion of the available shareholders' equity. More generally, if we attribute to companies the continuous creation of economic value as their main purpose (Guatri 1995), the state of crisis may be seen as the situation in which the business activity gradually erodes and destroys this value, with negative consequences on all corporate stakeholders (Buttignon 2008).
To get the overall picture of the corporate crisis status, we need to take a step back and distinguish the concepts of decline or decay from those of crisis or distress.

1.2.1. Decline

Decline can manifest itself as a physiological stage in the business life and occurs in terms of loss of profitability (which often induces investment reductions), negative cash flows, loss of market shares, deterioration of sales and financial structure, loss of highly qualified managers and resources, loss of competitive advantages (Guatri 1995). The measurement and the developmental path of these income flows is not strictly linked to past performances, but it also, and especially, refers to future expected values. The entrance in this phase is due to the organization's failure to anticipate or recognize and effectively neutralize external or internal pressures that could affect the long-term survival of the business (Weitzel & Jonsson 1989).

Looking at the characteristics that declining firms tend to share, Damodaran (2009) is able to summarize and generalize them as follows:

- stagnant or declining revenues: the company is unable to increase revenues over extended periods of time, even if the macroeconomic conditions are positive. Actually, flat revenues or revenues which grow less than the inflation rate evince operating weaknesses;
- shrinking or negative margins: the company is losing pricing power and it is decreasing prices to prevent a reduction in revenues. As a result, this will lead to a deterioration of operating income;
- asset divestures: in the presence of substantial debt obligations, the firm will more frequently divest assets to honor its debt since its existing assets are sometimes more valuable to others who may put them to more profitable uses;
- large payouts in the form of dividends and stock buybacks: if the debt for distress is not enough to be a concern, the firm will allot large dividends and buy back stocks with cash flows generated by its existing or divested assets, given the fewer growth investments;
- overwhelming financial leverage: in the presence of stagnant earnings, the firm will have significant difficulties not only to pay back the debt it has contracted in the past, but it will also have troubles to refinance it because of more stringent provisions that lenders will require.

1.2.2.Crisis

When the negative trajectory of the decline condition is not promptly detected and the firm is not restored to health, the decay degenerates into crisis. It consists, therefore, of the full-blown and outward apparent phase of the decline; where the latter has become generally irreversible (Guatri 1995). Hermann (1963) formulates the organizational crisis definition along three dimensions affirming that it threatens high-priority values of the firm, it requires a limited amount of time in which a response can be made and it is unexpected or unanticipated by the company. This phase manifests itself, as a result of economic losses, with severe and growing cash flow losses whose direct repercussions will be the erosion of the firm's credit capacity and loss of trust (Fedele & Antonucci 2015). Consequently, the organization will face difficulties to renew or assess to bank lending because of its weaker reputation.

When the distress comes to a pathologic stage, the condition of insolvency worsens, and the value of activities appear insufficient to guarantee debt reimbursements.

Corporate crisis may be, moreover, studied according to the distinction between economic and financial distress. According to Buttignon (2020), a firm is economically distressed when its operating cash flows decline as a result of strategic problems such as industry dynamics and firm's competitive positioning or operational inefficiencies in the firm's processes and business model. Without a proper intervention, the company may become not viable anymore and its net present value as a going concern may be worth less than the value of its assets, were they to be separated from the business and liquidated apart (Crystal & Mokal 2006).
On the other hand, the troubled company may be dealing only with a financial distress. In this case, the firm appears to be cash flow insolvent because of accumulated excess debt not in line with its actual and expected performance (Buttignon 2020). A company which is merely financially distressed is economically viable and its assets are more valuable as a going concern. Conversely, these assets are illiquid and the company's capital structure is such that it is unable to fulfill its financial obligations (Crystal & Mokal 2006).

According to Damodaran (2009), another side of corporate crisis to be assessed when analyzing decaying firms is the reversibility of this condition and the level (low or high) of the financial distress. This aspect should be questioned considering, case by case, a firm's own history as well as the state of the other companies in the sector. A company which has faced and overcome cycles of positive and negative times is more likely to move back to health. Reasoning alike, a firm performing badly in a sector of healthy companies has problems related to its poor management. Conversely, a company that is doing badly in a poor performing sector has little hope to overturn its condition by changing managers. Depending on the combination of reversibility and financial distress, four possible outcomes will be presented:

- reversible decline, low distress: the firm is facing flat revenues and declining margins which are assumed to be overturned with a better management in place, resulting in a higher firm value than the status quo one;
- irreversible decline, low distress: operating improvements will not be sufficient to revalue the firm. Because of its low distress and, therefore, the low pressure on asset divestures, the firm can liquidate the assets in an orderly manner;
- reversible decline, high distress: if managed properly, the decline will be reverted, but the presence of high distress may harm the firm's ability to create value and may lead to a forced liquidation;

- irreversible decline, high distress: the resumption of the firm's value creation activity is irreparably compromised. If the liquidation occurs, the proceeds from the sale will be lower than the low distress case. Moreover, equity investors will gain less from this option because of the poor-quality assets.

Ultimately, the concept of crisis may be analyzed from a juridical perspective. In accordance with the European Directive on preventive restructuring frameworks and insolvency, the Italian legislator has introduced the "Crisis and Insolvency Code".
According to art. 2 of the code, a distinction between crisis and insolvency is provided. The crisis is defined as the state of economic and financial difficulty which is visible, in enterprises, as the inadequacy of the perspective cash flows to regularly meet the obligations planned. Insolvency is, instead, the inability of the debtor to regularly honor it financial liabilities.

What has been discussed so far has had the objective to present in an orderly manner the most shared concepts of decline and crisis in the organizational literature. It appears that the threshold between the two phases is blurred, since decay and distress are highly correlated to each other and is not always convenient to separate the two concepts (Sirleo 2009). Aside from the chosen definition, it is commonly shared the distinction between economic and financial distress. The former is a consequence of the erosion of the operational performance of the firm which generates insufficient cash flows to pay back its liabilities. As a failure of the firm's proper intervention, economic distress may lead to financial distress which is typically the result of a high leverage (Weitzel & Jonsson 1989).

In conclusion, regardless of the definition of decline and crisis, the former can represent a relatively physiological passage of the life of a firm (Sirleo 2009), while the latter, when comes to a pathological stage as the degeneration of the corporate decay, occurs in terms of economic value destruction. The explosion of the crisis, therefore, clearly harms all of the firm's stakeholder (Falini 2011).
At this point, a detailed analysis of the corporate distress phenomenon in terms of its symptoms and causes, its developmental path and the commonly used methods to investigate it, will set the basis for the further management of the corporate turnaround process.

1.3. Symptoms and causes of crisis

Following different possible definitions of corporate crisis, it becomes essential to identify symptoms and causes at the origin of the deterioration of a firm's performance and the erosion of its economic value over time. Indeed, a timely detection of these warning signs and their underlying reasons may interrupt the evolution into the crisis stage through a prompt corporate turnaround process.

When analyzing a condition of corporate crisis, a careful distinction of symptoms and causes of distress enables the observer to get an overall picture of the situation. Slatter and Lovett (1999) described symptoms as "tell-tale signs" or "danger signals" which an insightful analyst outside the firm can discern. These premonitions enable the management to be alerted on what might be wrong with the firm and, concisely, it generally comes down to a status of "decadence" and "imbalances" (Guatri 1995).

The possible symptoms indicating distress are numerous and could occur simultaneously in the firm. Indeed, their detection strongly depends on the observer's perspective and his ability to retrieve an unbiased opinion. Slatter and Lovett (1999) investigated the trends leading to the crisis condition in relation to different groups of stakeholders[1], internal and external, and with respect to three separate dimensions of the firm: the capital market, the business itself and the related financial information. Among the group of stakeholders, the informed reader and the shareholder constitute an interesting point of view. Perhaps the clearest and easily understandable warning signs are represented by the firm's financial information. It should be noted at the eyes of the shareholder a decline in market share, in sales volume or a worsening of the product mix, a loss in terms of profitability and cash flows, a deterioration of the firm's credit score. As a consequence of decline, the firm will attempt to raise new funds (debt of equity) from the capital market to plug its losses. Within the business, negative symptoms may be represented by the rapid senior management turnover and the loss of highly qualified personnel, a repeated failure of new product launches, a weaker reputation and corporate image, a worsening of relations with suppliers and the financial community.

The approach in relation to the negative phase of the crisis status is, often times, preceded by these warning signs toward which the management shows a reluctant behavior in making themselves aware of the symptoms of distress (Guatri 1995), in supervising threats and taking corrective measures (Fedele & Antonucci 2015).

[1] For a complete overview of different stakeholders' perspective see Slatter and Lovett (1999).

Nevertheless, the main level of analysis is represented by the identification of the causes of distress towards which the literature provides comprehensive insights. In particular, Guatri (1995) brings forward an interesting analysis discerning between two approaches to define the causes of corporate crisis: the subjective approach and the objective approach.

According to the first approach, the investigation of the causes is addressed towards the different categories of stakeholders, with a particular attention to the chief executive and the management team. Indeed, the origin of the crisis might be sought in their sheer incompetence in taking the best decisions for the company (Sirleo 2009), their lack of interest in the business (Slatter & Lovett 1999) and/or their delayed and insufficient interventions in distressed cases. According to Falini (2011), the internal composition of the management team affects the firm's ability to react to difficulties. In this context if, on the one hand, a management team which shows heterogeneity with respect to cultural background and management skills, appears to be more suitable in distressed environments, on the other hand, the homogeneity facilitates the decision-making process which is critical in the first hints of decline (Hambrick et al. 1996).

The subjective approach appears to be neither accurate nor complete to describe a complex phenomenon such as the corporate distress causes because many contingencies go beyond the control of the management team. Therefore, it appears desirable to apply an objective approach in determining the corporate crisis (Guatri 1995). Among the objective approach, a dualistic view is deployed by many scholars and academics such as Guatri (1995), Sciarelli (1995), Bibeault (1982), Slatter and Lovett (1999), Sirleo (2009), Falini (2011), Fedele and Antonucci (2015). Crisis causes have been, in fact, discerned between internal causes (strictly dependent on the business itself) and external causes (out of the firm's control).

Regarding internal causes of distress, the contribution of the literature may be re-elaborated into five main categories:

1. Inefficiency: one or more business areas operate with lower returns than competitors present in the relevant markets for the firm. The productive function, typically, is the one which exhibits with more evidence signs of inefficiencies. Different reasons can explain a higher level of production costs: obsolescence of all or part of production assets, inadequate investments, organizational inefficiencies, the level of preparation and capacity of the personnel. Indeed, the commercial inefficiency is characterized by a mismatch between marketing costs and their actual performance. In the administrative area, an excessive degree of bureaucratization and severe shortcomings of the IT systems may compromise the firm's well-functioning.

2. Overcapacity and/or stiffness: overcapacity is accompanied by the failure in quickly adapting to fixed costs arising therefrom. This inefficiency is primarily due to:
    a. long-lasting decline in the market demand across the whole industry;
    b. long-lasting market share losses;
    c. actual revenues not in line with the expectations, as a result of fixed investments;
    d. mismatch between the increase in costs and the level of prices subject to public control.

3. Decay of the products: this inefficiency derives from the firm's weaknesses in facing and controlling its own market. In fact, the offered products mix results to be, usually gradually, ineffective with respect to the customers' needs and the level of competition in the market. As a result, the firm loses market shares and achieves product margins below the level required to guarantee enough profit. Product decadence might be due to an erroneous product mix, margin developments related to the product lifecycle, lack or post acquisition services, insufficient investments in R&D and fruitless marketing campaigns.

4. Lack of programming and innovation: substantially, the firm is unable to anticipate, analyze and adapt its business management to external environmental changes. There is a strong focus on the short term with the consequent ineptitude in establishing well defined objectives. The lack of innovation, indeed, lies on the firm's inability to grow into new products, new markets and to, broadly speaking, exploit new opportunities.

5. Financial imbalances: the firm is characterized by excessive leverage, insufficient liquidity reserves, temporal imbalances between sources and uses, a prevalence of short-term debt with respect to the other types of indebtedness, missed payments on the agreed dates with suppliers. This inefficiency affects both the profitability of the company, as it generates economic losses, and the possibility of accessing the capital market as well as negotiating credit conditions. Financial imbalances are amplified when the firm has insufficient capital strength which does not allow to cover its operating losses and promptly take remedial measures, thus accelerating the downturn spiral of the crisis.

The external causes of crisis regard, indeed, macro-economic factors and industry factors, which consist of the uncontrollable characteristics of the outside environments where the company operates. Among the most common exogenous macro-economic factors, it is worth mentioning changes in market demand, the lack of an efficient banking system and a proper

regulation, the volatility of the interest rate or the exchange rate, adverse movements in commodity prices such as raw materials and property prices.
In addition, Sciarelli (1995) included, among the possible external causes of crisis, extraordinary or/and catastrophic events such as natural disasters, among which, for example, flood or earthquakes, or health crisis, as the still present global Covid-19 pandemic.
Instead, factors which impact on the industry dynamic consist of factors affecting the industry as a whole, such as changes in customers' needs, a strong competition, social or technological shifts and changes in regulations.

However, according to a research conducted by Bibeault (1982) on 300 case studies, in approximately 4 out of 5 cases decline was due to internal causes. Nevertheless, exogenous factors may exacerbate a firm which is already facing inefficiency troubles. In practice, a chain of interrelated internal and external multiple causal factors can be identified in most situations (Slatter & Lovett 1999) and can affect the company's survival.
For this reason, it appears difficult to give a fully comprehensive checklist of all possible causes which can affect the corporate stability. What is certain is that the firm's analysis must be conducted adopting both a micro-economic and a macro-economic approach in light of the dialectic between the external and internal organizational environment.

1.4. Stages of crisis development

It is not an easy task to precisely identify each stage which a corporation, facing a decline, will get through. In fact, each firm is unique in its kind and the level of crisis severity might be different and caused by various factors, such as the company's size and free assets available (Smith & Graves 2005).
Nevertheless, decline can be conceptualized by identifying characteristics that can occur at various stages along a decline continuum. This schematization attempt represents a useful tool for managers to approximately position the firm's distress in order to understand and design a proper intervention plan to restore the value of the company.

A first pattern of the stages of corporate crisis development will be hereafter presented in *Figure 1.1*, as a personal re-elaboration of the frameworks introduced by Weitzel and Jonsson (1989) and Riva et al. (2018). It should be considered that the different stages are indicated as being of equal endurance for the sake of simplification.

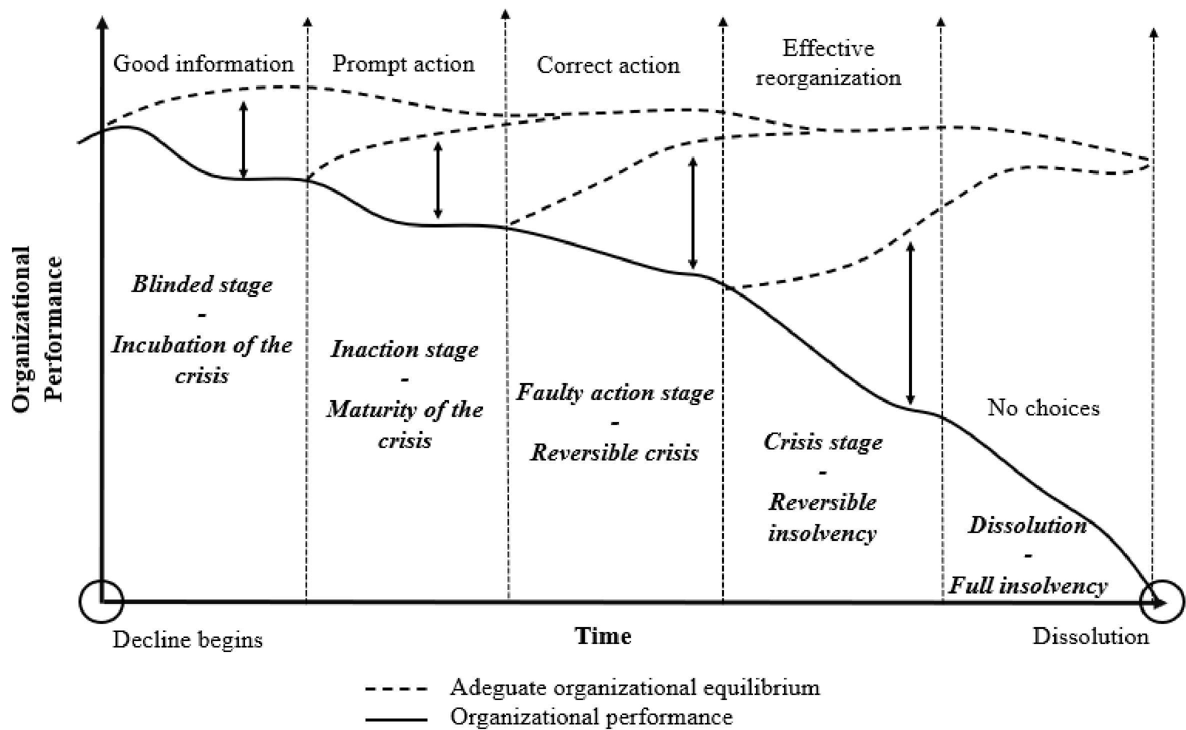


Figure 1.1 – The stages of corporate crisis development. *(Personal elaboration from Weitzel and Jonsson (1989), Riva et al. (2018))*

The first stage of corporate crisis development is called "blinded stage". Firms in the first stage of decline are unable to recognize internal and external changes that can threaten their long-term survival. Every firm has some areas of blindness but the success in recognizing the first symptoms of a possible decline depends on the organization's effectiveness (Hedberg et al. 1976). Indeed, in this stage, negative pressures do not have a manifestation in financial reports yet because of a supportive environment, sufficient resources available or a time lag before the actual impact on the business. To avoid the "blinded stage", a good information flow and efficient methods of internal surveillance are needed in order to prevent an incubation of the crisis.

If a management intervention does not occur, the firm faces the second stage denominated "inaction stage" where the crisis maturity is visible. A long-lasting inaction can lead the corporation towards a deterioration in terms of profits, declining sales and surplus inventories, large enough to become observable by organizational members. The lack of action can be due to two possible reasons, according to Miller and Friesen (1980): first, the threat may be seen as temporary and, second, corrective actions are generally costly and disruptive.

The "inaction stage" is negatively overcome by the "faulty action stage" when the inattention to stage two issues persist long enough. In this phase more significant financial imbalances appear and expected cash flows are inadequate to regularly meet planned obligations.

Because of the signs of possible insolvencies, the relationship with the financial community is fundamental to the firm's survival. The management must transparently demonstrate the existence of business strength factors and substantial reorganizational and restructuring plans must be presented in order to revert the crisis (Riva et al. 2018).
When the organization reaches stage four, the full "crisis stage" or "reversible insolvency", it means the management has unsuccessfully attempted to deal with its inefficiencies and all stakeholders become aware of the corporate financial distress. In this phase, the firm is not able to honor its debt repayment with its insufficient cash flow generation. The prescription for a recovery from the "reversible insolvency" requires a major reorganization and turnaround which must be substantive and not simply aimed at short-term survival.
In the "dissolution stage" the full insolvency of the company become irreversible: financial reconstruction goals have not been successfully achieved and sufficient fresh financial resources cannot be available anymore. The firm is characterized by a condition of capital depletion, loss of market shares and reputation such that, in unforgiving environments, no choice but going for assets sale, bankruptcy proceedings or move to the actual dissolution are left.

Another interesting and worth mentioning analysis of the corporate crisis path is the pattern presented by Buttignon (2008), which draws the dynamic declination of firms distress with respect to the time relation between free cash flows, going concern value, nominal value of debt and capital liquidation value in three different stages: *potential crisis*, *reversible crisis* and *irreversible crisis (Figure 1.2).*

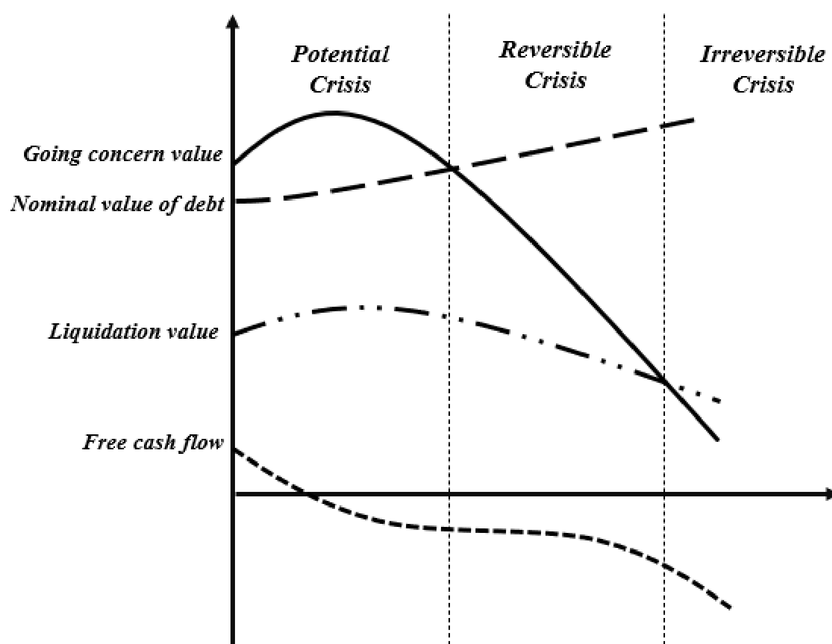


Figure 1.2 – The corporate distress stages. *(Buttignon 2008)*

The first stage is characterized by a situation of "potential crisis", where future operating free cash flows are expected to be negative and inertially attended to lose value over time as a result of different market and industry specific factors. Nevertheless, in this stage, the firm's going concern value follows a decreasing dynamic, but it is still higher than the nominal value of debt, which is expected to increase over time in the light of liquidity needs due to losses in operating free cash flows. A timeliness intervention is necessary to reverse course and it includes the identification of the structural causes of distress, the further implementation of a business turnaround plan and a revision of the financial structure, in terms of debt rescheduling or new debt issues.

If, due to an organizational inertia or/and ineffectiveness of the turnaround plans, the firm overcomes the critical point of distress and the "potential crisis" becomes a "reversible crisis". In this scheme, the going concern value has declined until it equalled the nominal value of debt but still being higher than the liquidation value: now the crisis manifests itself in an effective form. In this phase, the nominal value of debt is assumed increasing, as a result of the worsening of the operating performance, and the liquidation value is considered degressive. It firmly appears now the need to stop the fall in the going concern value and the increase in the indebtedness, intervening through a severe strategic turnaround and financial restructuring. This might require a debt rescheduling in the form of debt write-offs for capital rights concessions.

When the liquidation value overcomes the firm's going concern value, the crisis enters its irreversible stage. The use of a liquidation procedure is not only efficient but also justified by the need to recover value and it might occur in different forms. The firm can undertake the break-up of the business system, deploy separate no-entity specific assets or, taking hybrid initiatives, can split separate business units whose potential going concern value is higher than the liquidation value.

Whatever corporate crisis developmental pattern is chosen, what emerges is than an early recognition of the warning signs of a distress is essential in implementing an efficient turnaround plan which can break the downturn spiral of the crisis, aiming at avoiding a "death struggle" phase and the potential failure of the business (Hambrick & D'Aveni 1988). Timeliness must be the guiding principle to preserve the going concern value of the firm.

1.5. Methods of distress risk assessment

Companies' imbalances, as has already been said, can be understood as measures of symptoms or negative factors, detectors of critical conditions or instability and, fundamentally, of high risk of decline. Thus, what discriminates a distressed company which survives from one which results in liquidation is flexibility (Fedele & Antenucci 2015). This concept refers to the ability of the governing body to detect the warning signs of decline or distress and quickly adapt and reallocate resources in response to external and internal changes in efficiency.

Above all, managers should be aware of the business performance in order to promptly identify any sign of financial or operating weaknesses and wisely analyze their underlying causes in order to be in the position to design a proper turnaround process (Guatri 1995).
An internal business analysis, indeed, also confirms the needs of different stakeholders concerned in not seeing their position of interest affected.
Different methods to identify corporate distress may be implemented and commonly divided by the literature between:

- Methods based on intuition
- Methods based on ratio analysis
- Methods based on models
- Methods based on capital markets

Specifically, the last set of methods allows to measure the extent of the crisis in terms of probability of default.

1.5.1. Methods based on intuition

According to Guatri (1995), the first approach towards the recognisability and predictability of corporate crises is founded on methods based on intuition and approximate estimates. These methods rely on the external recognition of symptoms of decay and imbalances, visible in different degrees to the overall group of stakeholders.
Examples of these warning signs are well-known and shall include: belonging to declining sectors or in difficulty due to temporary deficiencies in demand, loss of market shares, operating or administrative inefficiencies, imbalances regarding the capital structure, profitability and sources of financing.

Table 1.1 summarizes the most common external factors that are indicators of a crisis and gives a qualitative view of the possibility of an effective resolution of the problem.

CRISIS SIGNALS	***EXTERNAL RECOGNIZABILITY***	***POSSIBILITY OF RESOLUTION***
Belonging to mature or declining sectors	High	Low
Belonging to sectors in distress due to declining demand	High	Low
Loss of market shares	Medium	Medium
Production inefficiencies	Low	High
Marketing inefficiencies	Medium	High
Administrative and organizational inefficiencies	Low	High
Exodus of highly qualified personnel	Medium	Medium
Rigid cost structure	Medium	Medium
Lack of planning and innovation	Low	High
Low R&D investments	Medium	High
Deterioration of relations with clients and suppliers	Medium	Medium
Financial imbalances: - High leverage - Deterioration of financial structure - Increasing risk of insolvency and consequent deterioration of the relations with the financial community	High	Medium
Balance sheet imbalances	High	Medium

Table 1.1 – Crisis signals, their external recognizability and possibility of resolution. *(Personal elaboration from Guatri (1995) and Sirleo (2009))*

1.5.2.Methods based on ratio analysis

According to Mears (1966), the analysis of financial statements and the following calculation of accounting ratios merely represents an important step in the overall process of a firm's failure[2] investigation. In particular, their usefulness is linked to the potential to bring to light corporate disequilibrium comparing a firm's ratios over an extended time horizon or in relation to other firms operating in the same industry or sector through a peer analysis.
In particular, the literature has been able to group the different financial ratios in four main categories related to companies' profitability, liquidity, capital structure and working capital.

Profitability ratios explore a company's ability to generate income during a time period in response to its revenues, shareholders' equity, balance sheet assets or operating costs. In these cases, a ratio reduction can reflect an initial warning sign of the deterioration in the value creation capability of a firm.

Among profitability ratios, of a significant application are:

- ROE: it measures the ability to earn returns on equity investments. A particularly high ROE may indicate that the firm is able to find very advantageous investment opportunities (Berk & DeMarzo 2014). It shall, however, indicate a value creation condition only if it is higher than the average return on similar investments, at equal risk. Indeed, the main criticism moved to this ratio is referred to its mixture between operating performance and capital structure, representing more the value creation for shareholders rather than the overall business profitability.
- ROA: it is measured relative to costs and expenses and compared to total assets to assess how effectively a company is deploying assets to generate sales and profits. ROA, as a performance index, has the advantage of a lower sensitivity to the indebtedness, compared to ROE, but it is sensitive to changes in the working capital.
- ROS: it evaluates a company's operational efficiency through the measurement of total sales that are converted into net income. It allows to conduct internal business trend examinations and, indeed, its enforceability on peer analysis is limited since it requires comparisons with firms operating in the same industry, ideally with similar business models and annual sales figures.

[2] Mears (1966), Beaver (1966) refer to the term failure as the inability of a firm to repay its financial obligations at the due date. Regarding a company's operations, failure materializes in bankruptcy, bond default, an overdrawn bank account, or the lack of a preferred stock dividend payment.

- ROIC: Koller et al. (2015) asserted than ROIC is the more suitable ratio in qualifying a business performance and its profitability trend, given the considerations previously made. In particular, value creation occurs when ROIC is higher than the firm's cost of capital. Hence, a ratio which is gradually shrinking below the cost of capital may constitute a relevant red flag of operating inefficiencies and corporate distressed.

Another ratio category, through which to identify the warning signs of the crisis in terms of short-term liquidity deficits, investigates the liquidity and solvency of a firm. The ability to meet shorter terms debt obligations, with the available liquid or easily disposable assets, is examined against the most widespread liquidity ratios:

- Quick ratio: quick or acid test ratio investigates a company's near-term financial solidity, therefore, its ability to keep up with short-term debt payments. According to Johri and Maheshwari (2015), an ideal quick ratio is right around 1:1, meaning that the firm has just enough liquid assets to cover its debt repayments. A low ratio causes concern with external investors and creditors because of the heavy reliance on efficient inventory turnover.
- Current ratio: it measures the company's solvency i.e. its ability to pay its current liabilities with the current assets available. Commonly, a ratio of 2:1 or higher is considered as a safe margin which can represent a good buffer for creditors even in the unfortunate event of a moderate margin reduction (Johri & Maheshwari 2015).
- Operating cash flow ratio: it measures to which extent current liabilities are covered by operating cash flows. Differently from the current ratio, this index assumes cash flow generated from operations to pay current liabilities, thus, a valid relation in considered to be 1:1.

Capital structure ratios describe the company's long-term capital and, therefore, its source of funding in supporting a proper operation and solvency. Imbalances and unsustainability in the capital structure can be the preconditions for a financial distress.
The strength of a firm's capital structure is assessed based, among others, on the following commonly used ratios:

- Interest coverage ratio: a commonly used interest coverage ratio is EBIT on interest expenses, and it measures the margin of safety a firm has for covering its current interest payments with its available earnings. According to Berk and DeMarzo (2014), a ratio

below 1,5 may represent a concern for lenders, worried about the company's ability to repay its debts.

- Debt-to-equity: it measures the extent to which the enterprise makes use of debt as a source of financing. An acceptable limit of financial leverage is usually 2:1, with no more than one-third of indebtedness in long term. A high ratio entails an aggressive recourse to debt as the main source of financing and, thus, high risk in the sustainability of the company's capital structure (Johri & Maheshwari 2015).

Besides, ratio analysis as a corporate distress investigation method, should explore how efficiently the firm is utilizing its net working capital and, specifically, this lays down of the measurement of the company's account receivable days, account payable days and inventory days. Even if these ratios can fluctuate seasonally, a significant unexplained increase may represent a cause for concern and the first warning signs of decline. For example, the firm could be poorly performing or trying to boost sales offering beneficial credit terms (Berk & DeMarzo 2014).

Another worth mentioning index is price-earnings ratio (P/E) and it represents the value of equity on the firm's earnings. It is used to appraise if a stock is over or undervalued on the idea that the stock price should reflect the level of value it can generate to shareholders. Since it considers the firm's equity, it is sensitive to leverage choices and, accordingly, of a limited usefulness when comparing companies with considerably different leverage[3].
The main frequently used ratios when investigating a possible decline or distress are reported below in the *Table 1.2*.

Profitability Ratios	$ROE = \frac{Net\ income}{Book\ value\ of\ equity}$
	$ROA = \frac{Net\ income}{Total\ assets}$
	$ROS = \frac{Net\ income}{Sales}$
	$ROIC = \frac{NOPLAT}{Invested\ capital}$
Liquidity Ratios	$Current\ ratio = \frac{Current\ assets}{Current\ liabilities}$
	$Quick\ ratio = \frac{Cash + Marketable\ securities + Accounts\ receivables}{Current\ liabilities}$

[3] This limitation is avoidable, indeed, assessing the underlying business market value using valuation ratios based on the firm's enterprise value (Berk & DeMarzo 2014).

	$Operating\ cash\ flow\ ratio = \frac{Operating\ cash\ flow}{Current\ liabilities}$
Capital Structure Ratios	$Interest\ coverage\ ratio = \frac{EBIT\ (or\ EBITDA)}{Interest\ expenses}$
	$Debt\ to\ equity\ ratio = \frac{Total\ debt}{Book\ (or\ market) value\ of\ equity}$
	$Debt\ to\ capital\ ratio = \frac{Total\ debt}{Total\ equity + Total\ debt}$
Working Capital Ratios	$Accounts\ receivable\ days = \frac{Accounts\ receivable}{Average\ daily\ sales}$
	$Accounts\ payable\ days = \frac{Accounts\ payable}{Average\ daily\ cost\ of\ sales}$
	$Inventory\ days = \frac{Inventory}{Average\ daily\ cost\ of\ sales}$

Table 1.2 – Distress risk assessment through financial ratios. *(Personal elaboration from Berk and DeMarzo (2014), Johri and Maheshwari (2015))*

As Beaver (1966) asserted, the corporate distress predictive ability of financial ratios, first, lies on the accuracy and clearness of the underlying financial statements: in fact, opaque accounting documents may lead to misleading results.

Nevertheless, the usefulness and convenience of financial ratio analysis, as a first detection of economic or financial distress, is irrefutable for all of a firm's stakeholders. In particular, the historical trends of financial ratios can be used to make inferences about a firm's financial condition and the efficiency of its operations and, in case of distress, it allows to assess its position in the corporate crisis developmental path and, accordingly, the available intervention instruments.

1.5.3.Methods based on models

The aforementioned studies of Beaver (1966) have shown a definite potential of the analysis of financial ratios to detect the foreseeability of a firm's operating and financial distress. His studies, furthermore, have set the basis for an improvement upon traditional techniques in order to provide a multivariate profile of companies.

Of a particular relevance was the study carried out by Altman (1968), who examined the reliability of the multiple discriminant model as a predictive technique of a corporate bankruptcy[4]. In this study, five ratios describing firm's liquidity, profitability, leverage and solvency were selected for the goodness of their prediction of corporate bankruptcy and set the basis of the so-called Z-score discriminant function, which assigned a score to each publicly traded firm considered as a result of historical data analysis (*Figure 1.3*).

$$Z = 1{,}2X_1 + 1{,}4X_2 + 3{,}3X_3 + 0{,}6X_4 + 0{,}99X_5$$

$$X_1 = \frac{Working\ capital}{Total\ assets} \quad X_2 = \frac{Retained\ earnings}{Total\ assets} \quad X_3 = \frac{EBIT}{Total\ assets}$$

$$X_4 = \frac{Market\ value\ of\ equity}{Book\ value\ of\ total\ debt} \quad X_5 = \frac{Sales}{Total\ assets}$$

Figure 1.3 – The Z-score model. (*Altman 1968*)

As a result, this model has the advantage to select a "cut-off" point and assign a Z-score to each firm in order to classify it as economically and financially healthy or under bankruptcy risk. In particular, all firms having a Z-score greater than 2,99 fall into the healthy or non-bankrupt sector, while those having a score below 1,81 are considered to be bankrupt. Indeed, the intermediate score zone (between 1,81 and 2,99) is called "grey area" or "zone of ignorance" because results were proved to exhibit ambiguity and the susceptibility to error classification.
According to the results obtained by Altman (1968), the bankruptcy prediction model was an accurate forecaster of failure up to two years prior to bankruptcy and it was a successful tool for internal corporate control considerations and a valuable technique for screening out unprofitable investments.

[4] From Altman's study (1968), the term bankruptcy was referred to those firms which filed bankruptcy petitions under Chapter X from 1946 to 1965 under the provisions of the National Bankruptcy Act.

Since Altman (1968) implemented this model for publicly traded firms, excluding small and very large companies, he decided to deploy a further re-estimation in order to adapt it to privately held entities, as displayed in *Figure 1.4*.

$$Z' = 0{,}717X_1 + 0{,}847X_2 + 3{,}107X_3 + 0{,}420X_4 + 0{,}998X_5$$

$$X_1 = \frac{Current\ assets - Current\ liabilities}{Total\ assets} \quad X_2 = \frac{Retained\ earnings}{Total\ assets}$$

$$X_3 = \frac{EBIT}{Total\ assets}$$

$$X_4 = \frac{Book\ value\ of\ equity}{Total\ equity} \quad X_5 = \frac{Sales}{Total\ assets}$$

Figure 1.4 – The private firm Z-score model. (*Altman 1993*)

Given its diffusion and success, the Z-score model has represented the basis for further adaptations made by different academicians, for example, in Italy, we had the contributions of Alberici (1975), Cascioli and Provasoli (1984), Appetiti (1984), Forestieri and Cifarelli (1985).

According to Ohlson (1980), previous studies seem to have overstated the forecasting power of models developed and, in fact, among the criticisms levelled at the multivariate discriminant analysis of Altman (1968), one concerns the output of the model due to the reduced intuitiveness of the score obtained, without reference to the bankruptcy probability[5].
The so-called O-score model of Ohlson (1980), indeed, overcame this and other disadvantages as it adopted the conditional logit model. Through the adoption of a probabilistic approach, the O-score results in a value between 0 and 1 as a representation of a firm's probability of default. Nine statistically significant financial statements indicators are adopted because of their ability to capture: the size of the firm, its financial structure and performance, and its current liquidity, as follows (*Figure 1.5*).

[5] For the purposes of this thesis, probability of bankruptcy and probability of default are referred to the same corporate concept of financial distress.

$$O_1 = log\frac{Total\ assets}{GNP\ price\ level\ index} \qquad O_2 = \frac{Total\ liabilities}{Total\ assets} \qquad O_3 = \frac{Working\ capital}{Total\ assets}$$

$$O_4 = \frac{Current\ liabilities}{Current\ assets} \qquad O_5 = 1\ if\ total\ liabilities > total\ assets;\ 0\ otherwise \qquad O_6 = \frac{Net\ income}{Total\ assets}$$

$$O_7 = \frac{Funds\ from\ operations}{Total\ liabilities} \qquad O_8 = 1\ if\ net\ income < 0\ for\ the\ last\ 2\ years;\ 0\ otherwise$$

$$O_9 = \frac{Net\ income_t - Net\ income_{t-1}}{|Net\ income_t - Net\ income_{t-1}|}$$

$$O - Score = -1{,}32 - 0{,}407O_1 + 6{,}03O_2 - 1{,}43O_3 + 0{,}0757O_4 - 1{,}72O_5 - 2{,}37O_6 - 1{,}83O_7 + 0{,}285O_8 - 0{,}521O_9$$

$$Probability\ of\ bankruptcy = \frac{\exp\ (O - Score)}{1 + \exp\ (O - Score)}$$

Figure 1.5 – The O-score model. (*Ohlson 1980*)

As asserted by Resti and Sironi (2007), credit scoring models, as those previously proposed, can be used for estimating the borrower’s risk level or for a default forecasting, in terms of companies’ probability of distress. Despite the wide field of applicability, it is necessary to pay attention to few limitations. In fact, the meaningfulness of the independent variables used by scoring models may change over time due to different factors such as the effect of the economic cycle and financial market variables. Moreover, these models fail to consider qualitative factors, including the company’s reputation and management quality, the stage of the economic cycle and the outlook of the industry.

1.5.4.Methods based on capital markets

Capital market models estimate the probability of default with reference to the market availability of the price of stocks and bonds as an input (Resti & Sironi 2007).

A first application of this approach can be found in the estimation of the cumulative probability of distress over a specific time horizon. In particular, rating agencies assign a rating class to each company and, therefore, associate to each class a specific probability of default based on bonds historical data of default. Among others, Altman (2007) has evaluated the cumulative probabilities of default for bonds within different rating classes, over five and ten-years from issuance.

Rating class	*Cumulative Probability of Default*	
	5 Years	*10 Years*
AAA	0,04%	0,07%
AA	0,44%	0,51%
A+	0,47%	0,57%
A	0,20%	0,66%
A-	3,00%	5,00%
BBB	6,44%	7,54%
BB	11,9%	19,63%
B+	19,25%	28,25%
B	27,50%	36,80%
B-	31,10%	42,12%
CCC	46,26%	59,02%
CC	54,15%	66,6%
C+	65,15%	75,16%
C	72,15%	81,03%
C-	80,00%	87,16%

Table 1.3 – Bond rating and probability of default. *(Altman 2007)*

According to Damodaran (2009), this approach presents few limitations as well. In fact, it delegates the computation of default probabilities to rating agencies, assuming to trust their analysis and considering that ratings standards do not change over time. Additionally, default probabilities reported in *Table 1.3* are referred to bonds issued but do not furnish information on the underlying business.

A different approach proposed by Damodaran (2009) allows to estimate the probability of default from the calculation of a bond price as the discount of its expected cash flows at the risk-free rate (r_f). Adopting a constant annual probability of default ($\pi_{Distress}$) and considering a bond with fixed coupons maturing in *N* years, its price will be:

$$Bond\ price = \sum_{t=1}^{t=N} \frac{Coupon(1-\pi_{Distress})^t}{(1+r_f)^t} + \frac{Face\ value\ of\ bond(1-\pi_{Distress})^N}{(1+r_f)^N}$$

This method allows to extrapolate the probability of default in conjunction with the price of a traded corporate bond, knowing its coupon rate and residual maturity.

What we retrieve is an annualized probability of default, ignoring that this probability will be higher in the earlier years and decline later.
Despite its immediateness, this method requires straight listed bonds whose coupon repayments are assumed either fully paid or not at all. In addition, the estimated probabilities may be different for diverse bonds issued by the same company and, thus, failure in fulfilling debt obligations does not always results in operations cessation (Damodaran 2006).

A second approach based on the information retrieved from capital markets finds its roots in the *Option Pricing Model* developed by Black and Scholes (1973) and first applied to default risk by Merton (1974). These models, and their variants, are known as structural models because of the focus on the structural characteristics of a company that affect its probability of default.
In the Merton's model (1974) it is assumed that the firm has just one liability, i.e. a zero-coupon bond which requires the repayment of the amount *F*, at time *T*, in a lump sum, and has a market value of *B*. Thus, the market value of the firm's assets (*V*) fluctuates over time partially unpredictably and, thereafter, the following geometric Brownian motion could describe their instantaneous percent changes in *V* (*dV/V*) (Resti & Sironi 2007):

$$\frac{dV}{V} = \mu dt + \sigma_v dz = \mu dt + \sigma_v \varepsilon \sqrt{dt}$$

where μ is the expected instantaneous return on the assets, dz is the random noise and σ_v is the rate of variability of the geometric Brownian motion.
Visually, the stochastic evolution of assets returns and the uncertainty regarding their future dynamic increases over the time horizon, as shown in *Figure 1.6*.

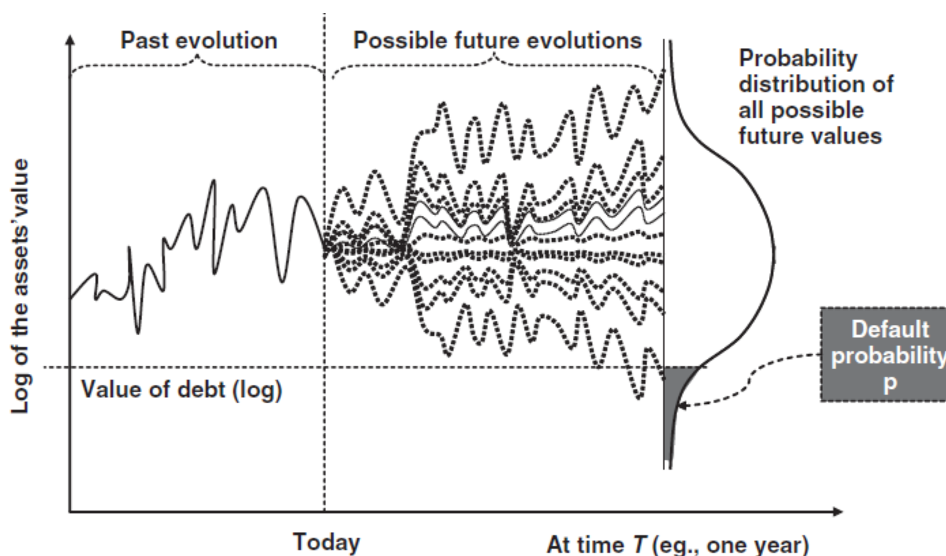


Figure 1.6 – The logic behind the Merton's model: default probability. *(Resti & Sironi 2007)*

As reported in *Figure 1.6*, the model is based on the intuition that a firm defaults when the value of its assets turns to be lower than the value of its liabilities.
Graphically, Merton (1974) represents the probability of default as the area under the normal distribution which depicts all negative assets yields that are large enough to lead the value of assets at maturity T to be lower than the repayment value of the debt: ($V_T < F$).
In this specific case, shareholders make a loss on the risk capital invested in the firm and when the capital value is annulled, i.e. $V_T < F$, they already lost everything they could.
Nevertheless, due to the principle of limited liability, shareholders have the option of handling over the firm to their creditors rather than committing to repay the company's debt. This circumstance could be considered as a put option that the firm's lenders have granted to shareholders on the assets value, with a strike price equal to the face value of debt *(F)* at maturity *T*. Through the model originally developed by Black and Scholes (1973), the put option price can be calculated as follows:

$$P_0 = Fe^{-rT}N(-d_2) - N(-d_1)V_0$$

where *N*(.) is the standard normal cumulative density function, while d_1 and d_2 are computed as:

$$d_1 = \frac{\ln\left(\frac{V_0}{F}\right) + \left(r + \frac{1}{2}\sigma_V^2\right)}{\sigma_V\sqrt{T}}$$

$$d_2 = d_1 - \sigma_V\sqrt{T}$$

The company's probability of default can, thereafter, be expressed as the probability that the market value of its assets will be lower than the repayment value of debt at maturity *T*, which corresponds to the exercise probability of the put option, which can be computed as:

$$p = \Pr(V_T < F) = N(-d_2) = 1 - N(-d_2)$$

The probability of default obtained (p) is a risk-neutral probability of default due to the substitution of the expected return on assets (μ) with the risk-free rate (r).
Ceteris paribus, the probability of default increases as:

- the beginning market value of assets (V_0) decreases;
- the nominal value of debt (*F*) increases;
- the volatility of the market value of assets (σ_V) increases;
- the debt maturity (*T*) increases.

The Merton's model, despite its effectiveness in showing which factors drive a firm's probability of default, have few limitations when shifting from pure theory to the actual practice (Resti & Sironi 2007):

- the too simplistic assumption of the zero-coupon bond liability that requires an interest and principal repayment in a lump sum upon maturity. In real life, companies are characterized by complex capital structures and default may occur at any time, regardless of the maturity of their liabilities;
- few model's inputs, particularly the market value of assets and the volatility of assets yields, may not be directly observable on the market;
- the assumption of the standard normal distribution of asset returns may not be realistic;
- the assumption of constant risk-free interest rates which, moreover, does not allow for an investigation of the relation between interest rate risk and equity risk.

An extension of the Merton's model has made it possible to overcome few of the aforementioned limitations. The so-called KMV[6] model, belonging to the structural model category, takes a two-step approach in the computation of the probability of default.

First of all, the process allows to compute the value of the distance point (*DP*), considered to be the critical default threshold and measured as all short-term debt (*STD*) plus 50% of long-term debt (*LTD*):

$$DP = STD + \frac{1}{2}LTD$$

This way, the KMV model overcomes the simplistic assumption of the Merton's model and takes into account a more realistic company where activities are financed with a combination of both short-term and long-term debt. Although it is important that the assets value remain higher than the short-term debt value, the firm does not become insolvent if the value of assets falls below the total value of debt, considering that the long-term debt needs to be repaid in a more distant future.

[6] KMV was a California-based firm acquired by Moody's Investor Services in 2002 and its acronym comes from the names of the three founding partners: Steven Kealhofer, John Andrew McQuown and Oldrich Vasicek.

After the computation of the default point, it is possible to calculate the distance to default (*DD*), as the difference between the assets value and the default point, divided by the product of assets value and assets standard deviation:

$$DD = \frac{V_0 - DP}{V_0 * \sigma_V}$$

Thereafter, once the firm's distance to default is known, the KMV model coverts it into a probability of default, defined as the expected default frequency (*EDF*), according to a database of historical data.

The model developed by KMV has gained great popularity because of its advantages, other besides the estimation of a company's probability of default. In fact, probabilities of default quickly adapt to changes in the financial conditions of the company being analyzed primarily because expected default frequencies are based on highly forward-looking market data (Resti & Sironi 2007). Furthermore, contrary to default rates assigned by rating agencies, expected default frequencies do not significantly oscillate with changes in economic cycles.

Notwithstanding the benefits associated to the adoption of the KMV model, it presents limitations common to capital market models. Its applicability does not include the computation of probabilities of default of unlisted companies, since their market value and equity volatility are unavailable. Secondly, if the assumption that equity markets are informationally efficient is lacking, i.e. if capital markets are inefficient, illiquid or unable to properly mirror all available information, such data becomes unreliable (Resti & Sironi 2007).

In conclusion, regardless of the approach chosen for the computation of the probability of default, it is clear that there is no infallible method and that each of them is subject to limitations and to its own concept of company's default.

CHAPTER 2: MANAGING THE CORPORATE TURNAROUND PROCESS

2.1. Introduction

During the past decades corporate restructuring has become a staple in the life of companies due to the pervasiveness of its role. Thus, once distress has been detected, hopefully early enough to guarantee the business going concern assumption, the management will have the key task of selecting the proper restructuring instrument. In fact, the turnaround initiatives envisage a wide range of actions thanks to different characteristics which, combined, try to meet different needs. In this regard, after an initial review of turnaround process models (*Paragraph 2.2.1.*), Chapter II will sift through informal, hybrid and formal restructuring procedures.

In a first instance, the management will contemplate the availability of out-of-court restructurings, also known as private workouts, in respect of the specific business condition in terms of crisis severity and restructuring requirements (*Paragraph 2.2.*). The announcement of these tools may have a more or less positive effect on the market depending on the impact they have on investors (*Paragraph 2.3.*) and these strategies are commonly categorized by the turnaround literature into four main clusters: managerial, operational, portfolio and financial restructuring (*Paragraph 2.2.2., 2.2.3., 2.2.4., 2.2.5.*). They all share flexibility in negotiation, cost savings and limited damages to corporate reputation as compared to court supervised proceedings but, nonetheless, they may present challenges in reaching an economically efficient outcome. These include, for instance, conflicting incentives of claimants regarding the business liquidation or continuation decision, their inability to reach an agreement which may trigger, consequently, collective action or holdout issues (*Paragraph 2.4.*). When these and other circumstances make it impossible to implement a contractual solution, the legislator provide for legal processes entailing the supervision of the bankruptcy court.

In this context, *Paragraph 2.5.* is dedicated to the Italian insolvency system which governs a series of crisis mitigation tools, strongly oriented to the conservation and recovery of the business through the enhancement of an agreement between the debtor and creditors. The choice of the entrepreneur, depending on whether the insolvency is potential or manifest, falls mainly on four procedures, namely certificate plan, debt restructuring agreement, composition with creditors and bankruptcy, that offer protection to the debtor against the creditor's actions and entail a growing degree of juridical intervention.

2.2. Out-of-court turnaround strategies

By the time the corporate distress manifest itself in terms of performance and income deterioration, it becomes imperative to pinpoint and adopt the most suitable solution to deal with the crisis and preserve the business value and the interests of all stakeholders. In this regard, different possible paths are accessible to the company, but the proper strategy identification requires the adoption of an entity-based approach, given the unique nature of the individual firm and the external context in which it operates.

In this regard, corporate turnaround has become a pillar of management life. According to Schendel et al. (1976), this concept refers to the company's decline and recovery from distress. Thus, turnaround strategies concern the reversal of organizational performance (Chowdhury 2002) and can be defined as the set of directives, consequential and long-term measures targeted at the reversal of distress (Cater & Schwab 2008). In particular, turnaround occurs when the company has survived through an "existence-threatening" performance distress and has, finally, restored its profitability through a sustainable recovery process widely acceptable by its stakeholders (Robbins & Pearce 1992, Pretorius 2009).

Taking a step backwards, in material terms, the choice standing in front of the company falls between corporate turnaround and liquidation. An essential precondition for corporate restructuring shall consist of the viability of the business, ascertained through an exhaustive analysis of the current operating health and financial capabilities of the company (Garrido 2012). The enforcement of a turnaround process requires the firm's going concern value to be substantially higher than its liquidation value (Hofer 1980). Conversely, if the business is not viable, a turnaround strategy would only delay the unavoidable demise of the company and absorb substantial time and resources; in this case, the liquidation process would be a more efficient alternative (Hofer 1980, Garrido 2012).
On the other hand, in formal terms, the corporate turnaround decision comes down to an out-of-court or an in-court restructuring. The latter corporate restructuring mechanism entails the formal supervision of the juridical authority and the bankruptcy court, being generally regarded as a public solution (Altman et al. 2019). Indeed, the out-of-court restructuring is also known as workout or private mechanism because of its lack of juridical intervention. The company workout concerns altering the structure of assets and liabilities with the objective to recover growth, promote efficiency and minimize the costs associated to the firm's financial distress (Garrido 2012).

Secondly, the management choice of the more adequate turnaround strategies should encompass three common guiding principles: efficiency, timeliness and fairness (Buttignon 2008). Applying the efficiency principle to the crisis management means reflecting on the most valuable utilization of the distressed company's assets. In this regard, the best solution concerns the allocation of the firm's accumulated resources in their most productive configuration, which envisages not only the value of individual assets, but also having regard of the value generated from their combinatorial proprieties. The principle of timeliness, thereafter, is key in corporate distress management and represents a variation of the efficiency concept in a dynamic sense. From this perspective, the management should take prompt and timely actions in order to stem the deterioration of the economic value of capital, in terms both of enterprise value and liquidation value. The postponement of a distressed situation, indeed, may have a negative impact on the firm's reputation, resulting in a decrease in the economic value of the company's assets, especially for the intangible ones, and it may generate more and more important difficulties in carrying out the investments necessary for the maintenance and strengthening of entity-specific resources and skills. Ultimately, the fairness should support efficiency and timeliness principles so as to equitably allocate costs and benefits between the different stakeholders. After all, an acceptable combination of efficiency, timeliness and fairness can lead to a concretely viable solution for the management of corporate crisis.

The following paragraphs illustrate the fundamental characteristics of out-of-court turnaround strategies, with a focus on its process model and the commonly adopted content taxonomy, namely (Schweizer & Nienhaus 2017):

- Managerial restructuring
- Operational restructuring
- Portfolio restructuring
- Financial restructuring

Concisely, managerial restructuring provides for the top management team replacement, covering a detached category of operational restructuring which, in turn, broadly entails a myriad of activities targeting efficiency enhancements. On the other hand, portfolio and financial restructuring represent, respectively, a more severe change of the company's asset and capital structure. Although each restructuring strategy will be discussed separately in the following paragraphs, it is important to underline how firms generally do not limit themselves to adopting a single recovery approach, taking into consideration, indeed, the pervasiveness of the corporate crisis phenomenon in relation to its interdependencies.

2.2.1.Turnaround process models

Although most research on corporate turnaround has focused on how companies can move away from a debilitating performance deterioration to a sustainable success, it is possible to detect the process dimension through few contributions analyzing the different turnaround phases. The turnaround process may be investigated as a dynamic sequence of events describing internal arrangements aimed at the company's performance recovery (Van de Ven & Poole 1995). Despite the attempt to conceptualize the turnaround process through descriptive patterns, it is important to keep in mind that different firms may proceed at substantially different rates through a phase of turnaround and, therefore, the models presented below should not be lifted to universal schemes (Chowdhury 2002). Nevertheless, in all turnarounds almost the same stages are discernable and, although they may not be physically distinguishable, different turnarounds may be juxtaposed on each phases' core concepts.

Among the first contributions to support the multistage approach is that of Bibeault (1982) who, as well as various scholars, argued that organizational turnaround is typically achieved through a two-phase process. In his view, the primary aims for the economically distressed firm are the attainment of a positive cash flow and the business survival. The achievement of this status is made possible through an initial phase characterized by an emergency plan, the purpose of which is to "stop the bleeding", and a stabilization plan to improve and speed up firm's core operations. These plans together constitute the business retrenchment stage which is predominantly targeted to establish a short-term stability during distress. The second phase proposed by Bibeault (1982), the so-called recovery stage, encompasses return to growth and development objectives. Thereafter, it is necessary to envision a decision point between the two phases, which clarifies the definitive direction of the turnaround process. Specifically, upon stabilization, the company must define either to formulate an essentially unaltered strategy, but in its "retrenchment-reduced form", or whether it will pursue a new recovery strategy with an emphasis on growth. Bibeault (1982), along with Hofer (1980), argues that the duration and pervasiveness of the retrenchment stage should be consistent with the severity of financial distress and the causes which compromised the business profitability, as seen in *Paragraph 1.3*. As stated by Pearce and Robbins (1993), Bibeault's (1982) major contribution to the turnaround process literature was the consideration of retrenchment[7] as a standalone concept which should set the basis for further recovery activities.

[7] The literature support toward this conceptualization of the turnaround process goes so far that, for example, Eichner (2010) argues that retrenchment is not only inevitable but, in many cases, firms should consider this stage as an obligatory antecedent to an efficient recovery stage.

It is in the light of this assessment that the aforementioned two scholars have later developed a model for the turnaround process.

Specifically, Pearce and Robbins (1993) have designed a descriptive model[8] which depicts the correlations between the turnaround situation, defined in terms of distress causes and severity, and turnaround responses, as shown in *Figure 2.1*.

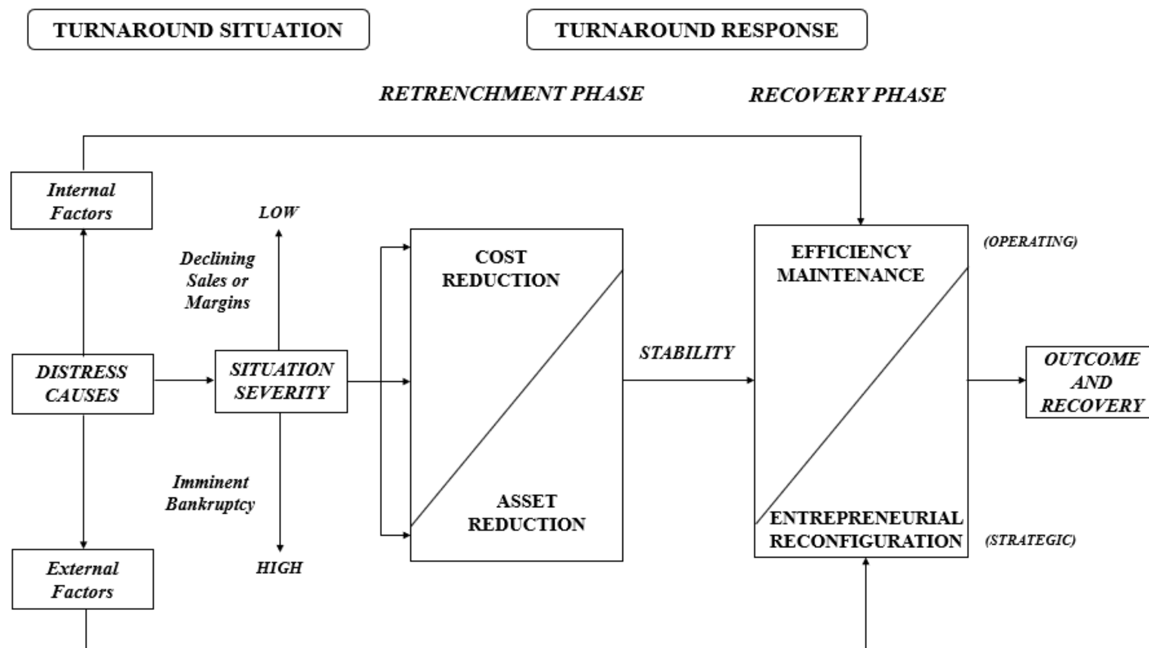


Figure 2.1 – The turnaround process model of Pearce and Robbins. *(Pearce & Robbins 1993)*

The flow of the turnaround process model begins with a diagnostic review which has the task of assessing the business situation in view of encompassing both the firm's external and internal environment. The analysis and then, the definition of the proper turnaround response relies on two entity-based variables: causality and severity. Inter alia, investigating the firm's distress severity entails testing its financial health and, specifically, defining to which extent distress is threatening the company's short-term survival. A lower level of severity can be attributed to declining income margins or sales while, extremely severe distress would be proclaimed by forthcoming bankruptcy. Speaking of which, in accordance with the studies carried out by Hofer (1980) and Bibeault (1982), Pearce and Robbins (1993) have asserted that distress magnitude and causality should be the governing factors in drawing up the appropriate

[8] The turnaround process model has set its basis on an empirically driven research conducted by Pearce and Robbins (1992) to investigate, first, to what extent the degree of retrenchment positively affects the turnaround outcome. Their study took as investigation sample 32 US publicly held textile manufacturing companies from 1976 to 1985.

turnaround response. Thus, they have incorporated and elaborated the two-stage turnaround framework of Bibeault (1982), consisting of the retrenchment and recovery phases.

The retrenchment phase is considered to be the dominant turnaround strategy which many companies undertake as the initial response to a survival-threatening corporate crisis. Specifically, this stage spans from "the onset of the turnaround situation until asset and cost reduction ceases" (Robbins & Pearce 1992) and it is intended to stabilize a company's current financial position and ensure stability (Cater & Schwab 2008). Furthermore, as well as other scholars, Pearce and Robbins (1993) differentiate retrenchment activities in two categories, namely cost retrenchment and asset retrenchment. The former consists of a reduction in operational costs such as process improvements, layoffs, products elimination, and the latter implies asset reductions in terms of divestures, liquidations, plant closings (Schmitt & Raisch 2013). Besides, distress severity plays once again an important role in shaping an adequate retrenchment activity. In low severity cases, cost retrenchment alone could be sufficient to reach a short-term financial stability. Instead, when the firm is facing a highly deteriorating distress, cost reductions should be supported by drastic unproductive asset divestures.
To such purpose, Pearce and Robbins (2008) have argued that, for diversified businesses, retrenchment activities alone could be enough in reaching a stable performance, if undertaken aggressively and broadly scoped. Moreover, their empirical research conducted on a sample of 32 US publicly held textile manufacturing companies found evidence of the highly significant interrelationship between the degree of retrenchment practices and the turnaround success (Robbins & Pearce 1992). In more severe turnaround conditions, indeed, retrenchers considerably overcame non-retrenchers in terms of efficiency, liquidity and debt relief measures[9].

However, the results obtained by Sudarsanam and Lai (2001) are not fully in line with what has been empirically evidenced by Robbins and Pearce (1992). In fact, the two scholars have monitored the turnaround strategies of a sample of 166 UK firms, drawn from 1985 to 1993, over a period of three years from the inception of distress. In this study, higher proportions of non-recovery corporations have adopted more intensive retrenchment activities of a "fire-fighting nature", in contrast with the forward-looking strategies adopted by recovery firms. Thus, Sudarsanam and Lai (2001) argue than the intensity in the adoption of restructuring

[9] For instance, on average, retrenchers achieved an improvement in ROI of 9.75% relative to 1.39% of the non-retrenchers (Robbins & Pearce 1992).

strategies could be due to a failure in promptly recovering in the early years of corporate crisis, without prejudice to the effectiveness of retrenchment activities.

In addition, the results achieved by Robbins and Pearce (1992) has received the criticism of Barker and Mone (1994), who argued that it is not straightforward to distinguish between retrenchment strategies as a consequence of distress and their deliberate selection as a turnaround activity. In fact, what emerged from the later refutation of Pearce and Robbins (1994) is that the two scholars have failed to properly replicate the original study, coming to an equivocal empirical evidence.

Nevertheless, despite the demonstrated effectiveness of retrenchment activities, what can be inferred is that their intensive adoption alone is insufficient in guaranteeing an acceptable performance rehabilitation. Therefore, as visible from *Figure 2.1*, once the firm has achieved more stable performance levels, it approaches to the second stage of the turnaround process, namely the recovery phase, which extends from the cessation of retrenchment strategies until the company achieves or fails to accomplish turnaround (Robbins & Pearce 1992). Recovery activities consist of strategic changes which strive for a sustained growth through the firm's repositioning and transformation (Schmitt & Raisch 2013). This phase can be accomplished implementing various strategies such as organizational refocus, investments and acquisitions, market penetration and product launch (Schmitt & Raisch 2013, Schweizer & Nienhaus 2017). As the model suggests, distress causality affects the choice of the appropriate recovery strategy. Thus, internal causality requires more efficiency maintenance and operating recovery activities, while the predominance of external causality asks for a strategic intervention, also known as entrepreneurial reconfiguration, targeted to a forward-looking market expansion (Pearce & Robbins 1993).

Another interesting and worth mentioning contribution is the turnaround process pattern presented by Filatotchev and Toms (2006) who had the merit of extending the model of Robbins and Pearce (1992) by introducing an additional turnaround phase, the so-called realignment stage. They have argued that the firm's entry into the retrenchment stage requires, ex ante, the consideration of financial constraints and related governance aspects which entail the realignment of expectations and strategic interests of internal and external stakeholders, as evidenced in the second layer of *Figure 2.2*.

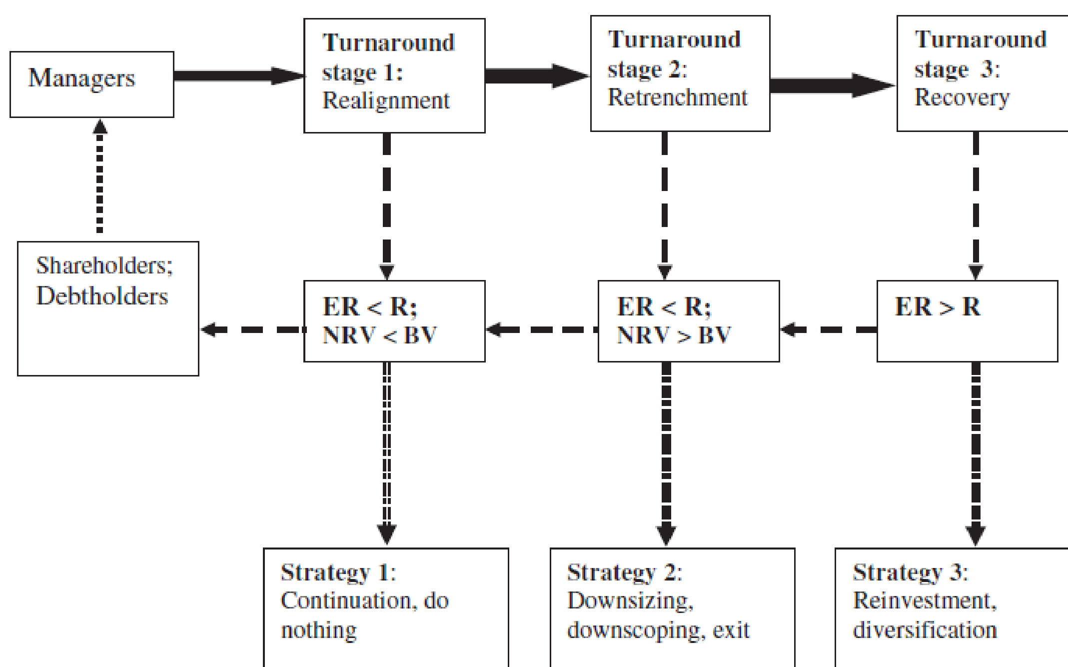


Figure 2.2 – The turnaround process model of Filatotchev and Toms. *(Filatotchev & Toms 2006)*

Specifically, the model requires the retrenchment phase to be undertaken only after the successful completion of the realignment stage. In particular, if the rate of return attended (ER) from the turnaround strategy does not exceed the one required by investors (R), and the expected net realizable value (NRV) of asset disposals is lower than their book value (BV), the resulting strategic outcome will be a "do nothing" strategy (as shown in the third layer of *Figure 2.2*). Afterwards, an effective finalization of the retrenchment stage necessitates the disposal of unprofitable invested capital, where the NRV of assets exceeds their BV. Finally, where the ER from the reinvestment of asset disposals is not less than R, the company can attempt the recovery stage, the success of which hinges on the expected and actual returns arising from new assets investments.

According to subsequent studies conducted by Schmitt and Raisch (2013), what emerges from the prior turnaround models is that retrenchment and recovery have been considered as two separate stages to be addressed sequentially. However, adopting a dual perspective, results confirm how the "integration of contradictory elements" may be beneficial and positively related to the turnaround performance (Schmitt & Raisch 2013).

In conclusion, whatever process pattern is preferred, it appears indispensable the identification of the most suitable turnaround strategy, namely its content, as will be seen in the following paragraphs.

2.2.2.Managerial restructuring

The concept of managerial restructuring encompasses, above all, the replacement of the top management team and/or the chief executive officer. Especially at the beginning of the turnaround process, it is a widely held view that top management change is a precondition and a performance enhancing strategy (Schendel et al. 1976, Hofer 1980, Bibeault 1982, Guatri 1995, Slatter & Lovett 1999). In this regard, a study conducted by Daily and Dalton (1995) [10] have pointed out how the rate of CEOs turnover is substantially higher in the five-year period prior bankruptcy filing that for the control group in the same time span.

Denis and Kruse (2000) have further supported this result finding that 36% of the sample companies analyzed[11] have experienced a top executive turnover within the three years following the performance decline.

According to Slatter and Lovett (1999), managerial restructuring is an essential ingredient for business recovery on the basis of three main arguments:

1. In a first instance, poor performance could be due to an inadequate or ineffective incumbent management which may have a strong set of preconceptions about how to deal with the declining business.
2. The injection of new managers signals a break with the past and may be beneficial in restoring stakeholders' confidence and credibility in the future viability of the company.
3. A new business condition requires better suited strategic and organizational skills which are not always available in the firm.

Despite the common view, the empirical evidence has not always been supportive on the effectiveness of the managerial restructuring. Indeed, Denis and Denis (1995) have found conflicting results depending on whether management replacement was forced, i.e. due to external pressures, or attributable to normal retirement. Notably, forced top managers dismissals exhibited significant operating performance decline and substantial shareholders' wealth losses prior to the actual management changes. On the contrary, normal retirements have not been preceded by unusual performance mutations. Regarding, instead, the performance trend subsequent to the top management dismissals, Denis and Denis (1995) have evidenced how forced resignations, in contrast to normal retirements, have been followed by significant

[10] The sample comprises 57 bankruptcy filing firms and a matched control group of 57 nonbankrupt companies during the period 1973-1982 (Daily & Dalton 1995).

[11] Denis and Kruse (2000) sample consisted of 350 companies which have experienced a marked decline in operating performance in the period 1985-1992.

improvements in the business performance. In fact, regular dismissals have exhibited small increases in performance and, therefore, a limited impact on the business turnaround process.

In addition, the study conducted by Barker et al. (2001) has uniquely contributed to the investigation of top management team replacement at declining firms with an interesting focus on the effect of internal and opposite corporate factors, namely inertial and change forces. Firstly, the results obtained have supported the understanding of the most significant negative association between the level of top executives change and inertial factors. Indeed, the longer a company's strategic orientation is pursued, the lower will be the probability of a top management team replacement during the turnaround process and, similarly, larger firms will be less prone to such renewals too. On the other hand, an increase of outsiders control on the company's board of directors triggers a higher degree of dismissals. Moreover, in contrast to other scholars, Barker et al. (2001) have found that a firm's closeness to bankruptcy has not a significant association with top management changes during a turnaround attempt.

Another remarkable research is that conducted by Chen and Hambrick (2012) aimed at defining under which circumstances the CEO replacement is beneficial to the business turnaround process. The two scholars, in formulating their research hypothesis, have drawn from the fit/refit model introduced for the first time by Finkelstein et al. (2009). According to the fit/refit logic, a troubled firm has greater improvement chances in response to the chief executive officer replacement under two premises:

1. The substantive mismatch between the context-specific skills and capabilities required to the incumbent CEO and his actual qualities, as long as the latter is ill-suited in handling the firm's distress.
2. The appointment of a successor who proves to have well aligned qualifications to the new business context.

Indeed, the empirical research of Chen and Hambrick (2012) has been conducted on a sample of 223 firms which have faced a sudden shift from satisfactory profits to losses in the years 1990 to 2003. The results obtained not merely support the fit/refit model, but rather deepen its fundamental aspects. Specifically, Chen and Hambrick (2012) argue how, under severe performance decline, the firm will draw the greatest benefit from the combined dismissal of a misfit and long-tenured predecessor and the appointment of a well-suited successor. Thus, as hypothesized, this sub-sample of companies has achieved a 16% ROE improvement. Moreover, it is worth noting how the CEO replacement, in itself, is not efficacious in terms of performance enhancement.

Therefore, despite the numerous contributions from the turnaround literature, the effectiveness of managerial restructuring is not clear cut and different empirical evidence has provided mildly conflicting responses. Thus, what is undeniable is the need of a context-specific top management team, able to lead a distressed firm in the path of corporate restructuring.

2.2.3.Operational restructuring

Operational restructuring covers a myriad of strategies targeting profitability restoration, at least in the short term, with a view to cash flow generation and efficiency enhancement (Koh et al. 2015), which are desirable measures in lender-dominated companies (Lai & Sudarsanam 1997). These activities focus on operations redesign through the implementation of cost reduction and controlling, downsizing of the human capital and revenue generating strategies. The main objective, therefore, is not corporate strategy but assumes a fire-fighting nature and aims at improving the firm's operating efficiency (Schweizer & Nienhaus 2017).

According to Love and Nohria (2005), operational restructuring is often associated with downsizing, which is conceptualized as the effort to improve the firm's performance by reducing the so-called organizational slack. Indeed, downsizing is intended to reduce "absorbed slack", which covers excess costs embedded in the organization, and to transform it into "unabsorbed slack", namely uncommitted reservoir of resources. Furthermore, the analysis conducted by Love and Nohria (2005) on a sample of 100 large industrial firms in the United States in 1977 has highlighted how the best performance improvement has been achieved by high absorbed slack companies which have adopted proactive and broadly scoped downsizing strategies. Instead, as a consequence of performance decline, firms were more likely to adopt a reactive retrenchment primarily focused on the reduction of the workforce. In fact, post-downsizing operating performance has turned out to be dependent on the level of absorbed slack and the scope of the enacted strategy and, into specifics, widely scoped retrenchment has gained an improvement of 2.7% in ROA-Market relative to narrowly scoped downsizing.

Besides, a common operational restructuring strategy is intended to be the human capital restructuring, namely the downsizing of the personnel. Actually, studies focused on the effects of corporate layoffs have produced contradictory results in relation to performance changes and shareholders' wealth. Among the first studies carried out in this context, the results achieved by Worrell et al. (1991) have revealed a negative market reaction to layoff announcements, with a reduction of 1% in shareholder returns during an interval of ten days.

Moreover, investors have responded even more negatively to dismissal announcements attributable to financial distress. In particular, Worrell et al. (1991) have argued that the adverse market reaction has to be mainly attributed to the fact that the majority of the layoffs represents the signal of expected lower returns rather than to a dissociation by investors from firms' personnel policy management.

The research conducted by Chen et al. (2001) on a sample of 349 US firms' layoff announcements during the period 1990 to 1995 has deepened the effects of the latter on corporate performance. Their investigation evidenced, on average, a negative stock market response with a -1.2% two-day abnormal return. Furthermore, the personnel downsizing was accompanied by a temporary reduction in capital expenditure, business segments and an even worse market reaction to the extent that layoffs were due to declining demand. Nevertheless, in the three years following the dismissals, the sample exhibited an improvement in operating performance and profitability, manifested in terms of margin improvements and workforce productivity gains.

Conversely, Amabile and Conti (1999) investigated the impact of operational restructuring, namely of personnel downsizing, on the firm's work environment. In fact, the reduction of the workforce has proven to have a significantly negative affect on the creativity level and, therefore, the work environment will have to face an increase of obstacles to innovation, which is particularly harmful in high-technology companies. Where, instead, the layoff process is promptly concluded, the downsizing impact will be less detrimental on the organizational creativity.

To cope with the potential adverse consequences of downsizing, operational restructuring entails the implementation of cost cutting activities alongside organic growth. Morrow et al. (2007), adopting a resource-based view of the company, have argued that it is crucial to provide the firm with valuable and difficult to imitate strategies in order to ensure a favorable position in the competitive landscape through the creation of new products, processes or technologies. Into specifics, empirical evidence has supported the hypothesis according to which, firms valuably recombining their existing resources meet a stronger positive impact on investors' expectations than companies that either acquire or provide access to new assets (Morrow et al. 2007). Then, it is instrumental to the firm's corporate restructuring the need to reduce absorbed slack and provide a strategic innovation not to lose sight of the competitive positioning.

2.2.4.Portfolio restructuring

Portfolio restructuring, alternatively known as asset restructuring, entails strategic activities concerning the firm's portfolio reorganization with a view to better manage resources through divesture and acquisition transactions (Bowman & Singh 1993). As claimed by Schweizer and Nienhaus (2017), portfolio restructuring supports operational restructuring in its role of "source of funds" while, at the same time, being in contrast with the latter in its intention to refocus the business. The need to intervene on the asset side has proven to be among the first broad strategies companies implement and, besides, it is more common in mature firms which seek to redeploy proceeds from the sale of detrimental lines of business to better utilizations (Koh et al. 2015).

In this context, Byerly et al. (2003) state that it is possible to distinguish between two discernably different types of portfolio restructuring to which diverse performance results are associated: refocusing and repositioning. Refocusing, certainly the most common portfolio strategy, concerns adjustments and resizing of the organization's existing form with a specific refocus around the firm's core segments. This restructuring activity typically involves asset redeployment to be achieved through divestures of unrelated business segments. On the other hand, repositioning reflects an asset rearrangement around a shifted or newly designed core business, to be implemented through a combination of divestures followed by acquisitions.
In addition, the analysis conducted by Byerly et al. (2003) has highlighted a better market response in overdiversified companies among the 90 "refocusers" and, analogously, in low-level diversifiers among 41 firms implementing a repositioning portfolio strategy. Finally, they evidenced how the market perceives transforming strategies as more performance enhancing than conservative and refocusing strategies.

Since asset sales represent an alternative source of funds in financially distressed and liquidity-constrained firms, creditors may influence an early asset liquidation drawing an even greater benefit than equity holders (Hotchkiss et al. 2008). A premature asset restructuring oftentimes may be inefficient, leading to a decline in the firm's going concern value and providing a liquidation cost. Speaking of which, Shleifer and Vishny (1992) have analyzed its main determinants, with a particular focus on market liquidity. They have observed how the liquidation price may suffer a discount which do not reflect the value in best use of the asset, under two specific conditions: the "non-redeployability" of the asset and the entire industry distress. Under a recession, indeed, fire-sale prices could be depressed because of generalized credit constraints, triggering both a private and a social loss, which are accentuated in case of

growth and cyclical asset sales. In turn, asset illiquidity affects and, specifically, reduces the optimal amount of debt in the whole industry's capital structure. As a result, firms tend to avoid highly specific or "non-redeployable" asset sales, until it is strictly necessary under the form of forced liquidations (Shleifer & Vishny 1992, Hotchkiss et al. 2008).

Although transaction prices of assets disposal may not always be efficient, Bowman et al. (1999) have envisaged on average a positive performance response relative to portfolio restructuring. The greatest enhancement has been achieved through spin-offs which, based on a sample of 181 firms, have guaranteed a 5% average gain to the parent company, followed by a 2% gain generated through sell-offs. In the latter case, post-restructuring performance is further improved if sell-offs are accompanied by price announcements, payouts to shareholders or bondholders. Instead, a sample of 169 companies pursuing more general portfolio restructuring activities, such as refocusing strategies, has not attained any improvement on average (Bowman et al. 1999). This result has been further supported by the analysis conducted by Denis and Kruse (2000) on a sample of 350 firms. Thus, it has been investigated that 61% of the companies in the sample has undertaken an asset restructuring to which subsequent operating improvements have been linked between the onset of a deteriorating performance and the following three years. Moreover, portfolio restructuring announcements have encountered, on average, a positive stock market reaction with abnormal returns of 1.75% for asset sales, as a proof of the value-enhancing characteristic of such strategy (Denis and Kruse 2000).

In addition, Smith and Graves (2005) have tested which context factors, among the most discussed in the turnaround literature, have an effective influence on the success of a business restructuring process. First, the two scholars have selected a sample of 123 financially distressed companies, which exhibited at least two consecutive years of negative Z-scores, and have investigated the role of firms' distress severity, efficiency-oriented strategies, size, free assets available and CEO turnover on failure prediction. Contrary to what is claimed by Bowman et al. (1999) and Denis and Kruse (2000), Smith and Graves (2005) have found a negative relation between downsizing activities and firms' recovery, suggesting that a larger amount of free assets available positively influence turnaround success. In fact, portfolio restructuring could be detrimental to the business recovery if cutbacks are not properly addressed toward the less productive segments and if downsizing is not supported by efficiency-oriented strategies (Smith & Graves 2005). Indeed, according to Morrow et al. (2007), the introduction of new resources through acquisitions is performance enhancing and may exceed market expectations whereas existing assets are not sufficient in guaranteeing an adequate level of recovery, as long as this strategy is valuable and difficult to imitate.

2.2.5.Financial restructuring

Oftentimes, financial restructuring represents the fulcrum of the out-of-court turnaround process because of its role in providing relief to severely financially distressed firms. Schweizer and Nienhaus (2017) distinguish between liquidity improvement and debt restructuring in order to capture the main features of the different financial restructuring strategies.

Liquidity improvements, also known as equity-based strategies (Sudarsanam & Lai 2001), aim at reducing payment pressures through dividend reductions or omissions, working capital optimization, or equity issuance (Schweizer & Nienhaus 2017). Thus, capital injection is one of the first liquidity improvement strategies firms consider under a condition of moderate financial distress since, despite leading to an extensive dilution of current equity holders, it is expected to be effective in restoring stability (Altman et al. 2019). Under a severe financial distress, instead, some portion of the capital provided will be intended to reduce debt holders' impairment while the excess capital will contribute to the value of equity holders, resulting in an "immediate loss of value for the investor", as asserted by Altman et al. (2019).

In addition, DeAngelo and DeAngelo (1990) have investigated the dividend policy adjustments in 80 NYSE firms which experienced multiple losses during the period 1980-1985. Overall, the sample firms have performed a dividend increase in the pre-distress period but, right after financial distress has arisen, they have arranged an aggressive dividend reduction for at least 70%, which leads to multiple dividend cuts in almost half of the sample. Moreover, managers of large companies with long dividend histories appeared to be reluctant to payment omissions in order to preserve their reputation and the "continuous dividend record" at the eyes of stockholders. Finally, DeAngelo and DeAngelo (1990) have found evidence supporting the influence of binding debt covenants on dividend policies. Specifically, more than half[12] of the sample firms which performed a dividend cut had debt constraints in place. On the contrary, absent binding debt covenants, managers are less prone to execute dividend cuts or omissions, unless the corporate crisis is severe.

Debt restructuring, indeed, concerns an extensive transaction entailing the renegotiation of the firm's existing debt with a new contract which ensures the support of different categories of creditors and adapts to their business perspectives (Hotchkiss et al. 2008).

[12] Between 51.4% and 60.6% of the sample companies, depending on the chosen classification for binding debt covenants (DeAngelo & DeAngelo 1990).

Some of the various contents of debt restructuring may include, inter alia (Garrido 2012, Altman et al. 2019):

- Rescheduling of payments – this measure represents one of the less radical and most common strategy firms undertake. It may entail the deferral of specific repayment installments, the debt's maturity extension or the so-called roll-overs, i.e. the modification of maturity dates.
- Alteration of interest rates – under a business crisis condition, debt interest rates (fixed or variable) could be unsustainable compared to the cash flow generated by the firm and, therefore, a reduction can ease this distress.
- New loan facilities – the provision of new financing is often carried out by creditors with a large exposure who will obtain further securities to cover the additional risk involved.
- Distressed exchange – when capital infusion is not possible, the firm may offer to some or all classes of creditors to exchange new debt and new or existing equity instruments for the outstanding debt securities. In fact, fair value of those new instruments is most probably received at a discount with respect to the face value of the old debt.

It has been observed that many firms have emerged from financial distress still highly leveraged and poorly performing, although a long process of debt restructuring was adopted. Kahl (2002) has argued that the long-term nature of financial distress is attributable to creditors' inability to distinguish between an economically viable firm and one that must necessary be liquidated, and their bargaining power in the company's debt restructuring. Therefore, creditors' preference for a "controlled liquidation" is attractive because it preserves their claim in participating in a business recovery or liquidate later, whereas the turnaround process would not be effective. Moreover, according to Kahl's (2002) theory, a high pre-restructuring debt level does not only have a positive correlation with post-restructuring leverage, but negatively affects the attractiveness of a debt-equity swap which, in turn, is less probable if the company's going concern value is quickly deteriorating. Kahl (2002) states that creditors prefer a debt-equity swap whereas the firm may ensure advantageous investment opportunities, i.e. a condition which is probable in a lower leveraged business following debt restructuring. Again, a debt's maturity extension turns out to not be an interesting option if liquidation value is declining fast.

The validity of financial restructuring was supported by the analysis of Bowman et al. (1999), which reported a mean performance return of 37.5%, with respect to 5.6% of portfolio restructuring and -0.21% of organizational restructuring, partly due to the high returns of

management buyouts and leveraged buyouts cases. Moreover, with respect to financial restructuring, Koh et al. (2015) have observed that decline firms in distress are more likely to adopt an aggressive financial restructuring than companies at different stages of their lifecycle. Specifically, mature and declining businesses are more prone to reduce or omit dividends and issue new debt while, birth and growth companies are more likely to raise new funds through equity issuance because of their greater investment opportunities.

Finally, it has been argued that out-of-court turnaround is positively correlated with business recovery if the firm undertakes two or at least three strategies simultaneously, rather than one or more than three restructuring measures (Koh et al. 2015)[13].

2.3. Market reaction to turnaround announcements

The different empirical analysis carried out in relation to the response of capital markets, following turnaround announcements, have often reached mixed conclusions. Indeed, these conflicting results depend on the market perception of the information conveyed, which could be more or less favorable for investors, and on the specific restructuring initiative implemented. The literature, as will be seen below, has separately investigated each strategy in order to isolate the market response resulting from the company's announcement.

A first analysis of the investors' reaction as a consequence of restructuring announcements concerns the top management replacement, broadly related to managerial restructuring. The turnaround literature has produced conflictual outcomes: announcements have been greeted positively (Borokhovich et al. 1996), neutrally (Warner et al. 1988) or negatively (Khanna & Poulsen 1995) by the market. Borokhovich et al. (1996) have reported, on average, a significant positive abnormal return in response to the takeover of a new CEO. Specifically, the greater gain in shareholder value is achieved under the appointment of an external individual, rather than internal, in a condition of forced succession (1.64%). Indeed, shareholders perceive the CEO replacement to be beneficial to their interests, especially when the latter is external to the distressed firm and, therefore, breaks with the previous status quo (Borokhovich et al. 1996).

On the contrary, while Warner et al. (1988) have found a neutral market reaction, Khanna and Poulsen (1995) have detected a negative relation, regardless on the designation of an insider or

[13] Specifically, Koh et al. (2015) have taken into analysis the following restructuring measures: CEO replacement, more than 15% decrease in investment activities, more than 20% reduction in the number of employees, more than 15% reduction in total assets, more than 25% drop in total dividends, an excess of net debt of more than 5% of the total asset book value, an excess of net equity of more than 5% of the total asset book value.

outsider manager, of -0.96% in cumulative abnormal returns. Thus, it is likely that these announcements provide to investors additional and negative information about the company's crisis, suggesting that financial distress is most probably due to causes outside the management control (Khanna & Poulsen 1995).

Secondly, with regard to corporate restructuring strategies based on personnel downsizing, the literature seems to share the same current of thought that associates to layoff announcements a negative market reaction (Worrell et al. 1991, Chen et al. 2001, Nixon et al. 2004). Human capital expenses, despite being easily reducible, represent embedded knowledge and, in turn, a possible critical competitive advantage. In particular, the study conducted by Nixon et al. (2004) on a sample of 364 announcements, has identified a negative relationship between market valuation and the level of downsizing, that can be represented with a negative slope which becomes steeper as the degree of intervention increases. In fact, investors negatively perceive personnel reductions since it is unlikely to solve the major company's issues and, furthermore, it may worsen them because of the possible loss in valuable human capital. Therefore, if layoffs are necessary, they should be properly and carefully planned.

The turnaround literature focused on portfolio restructuring, as mentioned in *Paragraph 2.2.4.*, has generally highlighted a positive market reaction following an asset reorganization announcement. In this regard, Schönhaar et al. (2014) have stated that stock market reactions, while being averagely positive, seem to be more dependent on firm specific-circumstances, such as the relatedness between business units, the mode of divestures and the disclosure of information, rather than accounting results. Actually, the investigation of John and Ofek (1995) on a sample consisting of 321 divestures has evidenced an average cumulative return of 1.5% for the seller and 0.4% for the buyer. The study underlined, indeed, how the elimination of negative synergies, namely a "focus-increasing" divesture, is beneficial not only in terms of positive abnormal returns but enhances the cash flow performance of the seller's remaining assets. Another analysis supporting this hypothesis of refocusing announcements is that of Markides (1992). He has observed an average positive impact of 1.67% in returns, as a consequence of refocusing announcements, with the highest return of 4.91% in highly diversified underperforming firms, because of the expectation of investors who are confident in a boosting performance.

Ultimately, the literature seems to agree on the impact that a financial restructuring announcement has on the market, regarding the specific strategy pursued. Indeed, the announcement of the most common financial initiative, namely dividend cuts or omissions,

typically triggers negative long-term abnormal returns. Thus, the well-known reluctance of managers to pursue such strategies leads investors to arguably perceive dividend related announcements as a negative expectation about the company's future earnings performance (Liu et al. 2008). The analysis conducted by Liu et al. (2008) over the first post-announcement year on a sample of 2337 dividend reductions or omissions during the period 1927-1999, has further confirmed this result, performing statistically significant abnormal returns in a range between -5.89% and -14.52%. Furthermore, resorting to agency theory, Brown et al. (1993) have investigated the market reaction following distressed exchange offers. The result achieved, indeed, depends on the composition of exchange offers and the information conveyed about the value of the firm's assets. Specifically, when equity offering is executed in favor of well-informed private lenders there is a positive share price reaction of 9.134% while, contrarily, when public debtholders are offered these instruments, the average abnormal return to equity is -7.40% (Brown et al. 1993). In fact, the prevailing effect is dependent on the information available to investors with regard to the company's condition.

To wrap up, it is not possible to state with certainty what will be the response of stock prices in the face of an announcement of corporate turnaround. As seen in this paragraph, each restructuring strategy has its own peculiarities and conveys information to the market in relation to the expected business performance. Therefore, each announcement depends on a variety of economic circumstances which are highly entity specific and out of the management control.

2.4. In-court turnaround strategies

Out-of-court turnaround strategies have many desirable features for the debtor and, as a result, they are often preferable as compared to in-court proceedings. Specifically, an informal workout procedure provides much more flexibility since it allows the firm to privately intervene in a declining business with the implementation of a restructuring plan which "binds the debtor vis-à-vis the creditors and binds the creditors inter se" (Garrido 2012). Flexibility also manifests itself in terms of costs: out-of-court workout allows to save more direct[14] and indirect[15] costs compared to bankruptcy procedures, which may be quite onerous for large companies.

In fact, Gilson et al. (1990) have observed that restructuring of publicly traded debt, under a private workout, very often occurs as an exchange offer and takes averagely 6.6 months to complete. In particular, they have estimated that direct costs of 18 exchange offers, out of a sample of 169 large public companies, appear to be economically insignificant and amount to 0.65% of the company's book value of total assets (Gilson et al. 1990). Regarding, instead, in-court turnaround strategies, there is a significant cost difference between small and large companies. Speaking of which, Bris et al. (2006) have investigated a sample of 225 Chapter 11 reorganizations and 61 Chapter 7 liquidations, all of which consisting of large companies from two bankruptcy courts: Arizona and Southern District of New York. For Chapter 11 cases, direct costs amounted averagely to 16.9%, as a fraction of prebankruptcy assets, with a median expense of 1.9%. While Chapter 7 liquidations presented a mean expense ratio of 8.1%, with a slightly higher median of about 2.5%. Conversely, Lawless et al. (1994) have analysed the impact of in-court procedures' direct costs on 57 small Chapter 7 and Chapter 11 cases. They have found that, for Chapter 7 cases, direct costs averaged approximately 43% of firm value, while Chapter 11 cases accounted for about 22% (Lawless et al. 1994).

Overall, it may be argued that the magnitude of direct costs is particularly high for small firms compared to larger ones and, as a consequence, the former could struggle to survive an in-court turnaround process (Altman et al. 2019).

In addition to cost savings, it is worth recalling other advantages of out-of-court procedures such as the better articulation of a timely response and the lower reputational damages (Garrido

[14] Direct costs entail out-of-pocket expenses necessary to undertake a restructuring process, such as the cost of accountants, lawyers, turnaround specialists and advisors, and other professionals (Altman et al. 2019).

[15] Indirect costs cover all unobservable opportunity costs. For instance, the distressed company may suffer from lost sales, higher costs of doing business, loss of specialized employees and investment opportunities. As such, indirect costs are more difficult to identify (Gilson et al. 1990, Altman et al. 2019).

2012). Thus, the firm's stakeholders generally perceive more favourably the business viability under an out-of-court restructuring rather than an in-court process (Altman et al. 2019).

Despite the aforementioned advantages, a private restructuring is not always implementable and presents different challenges such as: information asymmetries, holdout problems and various conflict of interests. In particular, information asymmetries arise between informed firm's managers and poorly informed creditors and they may damage the proper functioning of the business turnaround process. Mooradian (1994) and Altman et al. (2019) state that this can happen because debtholders would rather prefer to rely on a more costly turnaround alternative than place their trust in the management and shareholders, whereas information is not symmetric. Secondly, the presence of different classes of creditors, i.e. the complexity of the debt structure, often makes it challenging to achieve coordination and may lead to material conflict of interests among debtholders, which is particularly the case of companies with both unsecured public debt and secured private debt (Gilson et al. 1990, Hotchkiss et al. 2008).
Furthermore, another common impediment to private workouts is the holdout problem. A holdout occurs when one or more dissenting creditors disregard the out-of-court restructuring in order to obtain the full contractual payment from the debtor. Actually, dissenting creditors trigger a collective action problem since they strive to "take a free ride on the collective efforts of the creditors participating in the workout" (Garrido 2012). Despite, in the event that the restructuring process fails, holdout creditors would probably gain less than in a negotiated private workout and, as a consequence, the firm would be forced into a formal liquidation procedure.

For this reasoning, an out-of-court procedure may represent an effective solution especially for small businesses which typically negotiate with a restricted number of creditors. Large firms, indeed, face more challenges when dealing with the holders of different classes of debt because of the many issues discussed above. Therefore, under these circumstances, firms resort to a court-supervised bankruptcy which features depend on the jurisdiction to which the business is subject. As argued by Garrido (2012), in many insolvency systems the distinction between an informal and a formal bankruptcy proceeding appears blurred because of different mechanisms which try to combine the benefits of both, i.e., the cost, speed, efficiency of a private workout with the binding effect of an in-court procedure. Thus, an efficient legal system should foresee a continuum of procedures for the treatment of financial distress based on the level of juridical intervention and the level of "formality" involved (Garrido 2012). With these warnings noted, the following paragraph will treat the fundamental aspects of the Italian legislative framework with regard to the legal system adopted in the management of the business turnaround.

2.5. The Italian legislative framework

Where the firm is in a context of severe financial distress, the role of the legislator is essential in providing consistency in the management of the in-court procedure. Under these circumstances, the company will probably not be able to fully repay its creditors and, therefore, the bankruptcy law of the jurisdiction under which it operates should provide adequate tools to protect creditors and, where possible, preserve the going concern value of the business. On the other hand, if the firm is subject to a slight decline in performance, nowadays, many legislators support managers with informal procedures, without having to resort to costly in-court tools.

In this context, the Italian insolvency framework ensures a good level of completeness and detail in meeting the diverse needs of both the creditors and the company, with instruments characterized by an increasing degree of intervention of the legislator depending on the individual case and its severity (Stanghellini 2015). Thus, the Italian Bankruptcy Law has been the result of different reforms which base their roots on the Royal Decree no. 267 of 16 March 1942. The objective of the original discipline has been strongly focused on the principle of fairness, that is on the protection of creditors, at the expense of timeliness and efficiency (Buttignon 2008), leading to a jurisdiction based on liquidation purposes of the insolvent company.

There has been, however, a profound change in the philosophy and in the basic aspects of the Italian business recovery procedures thanks to various legislative reforms, among which, the major insolvency law has been no. 80 of 2005 which initiated additional subsequent legislative initiatives[16]. The new discipline has introduced contractual and quasi-contractual agreements, characterized by a reduced role of courts in the management of business distress, a greater orientation towards the recovery and maintenance of the firm and an increased involvement of creditors in the restructuring process (Provasi & Riva 2013). In fact, parties involved in a business turnaround process are reluctant to resort to a formal bankruptcy procedure because of the social bias associated with insolvency and structural issues affecting the Italian juridical

[16] Over the past years, the Italian insolvency framework has been extensively revised:

- The Law no. 122/2010 from the Decree no. 78/2010;
- The Law no. 134/2012 from the Decree no. 83/2012, with an extensive regulation;
- The Law no. 98/2012 from the Decree no. 69/2013, with more limited rules aimed at the preservation of the going concern value of firms;
- The Law no. 132/2015 from the Decree no. 83/2015;
- The Law no. 119/2016 from the Decree no. 59/2016;
- The Legislative Decree no. 14/2019, with the new Business Crisis and Insolvency Code, whose entry into force with the Law-Decree no. 23/2020 has been postponed to September 2021 due to the Covid-19 pandemics.

system[17] (Danovi et al. 2020). Therefore, the Italian legislator has provided for the possibility of adopting more flexible tools with a lower level of procedural formalities, as long as the company is pre-insolvent, namely Certificate Plans (*Piani attestati di risanamento, ex art. 67, co. 3, lett. d, Legge Fallimentare – l. f.*), Debt Restructuring Agreements (*Accordi di ristrutturazione dei debiti, ex art. 182-bis, l. f.*) and Compositions with Creditors (*Concordati preventivi, ex art. 160, l. f.).* Restructuring and reorganization instruments are meant to grant the debtor some breathing room in order to recover from a temporary or more permanent liquidity constraint and, where necessary, restructure the firm's debt (Provasi & Riva 2013). On the other hand, generally creditors will accept this turnaround path whenever the going concern value of the company enhances their claims' value. The composition with creditors, indeed, is a flexible instrument which is suitable for more severe crisis conditions, characterized by a more invasive intervention of the bankruptcy court. In addition, the Italian legislator has updated the conditions of applicability of the tools, other than bankruptcy (*fallimento*), envisaging a broad concept of "crisis", which is not only the "insolvency" stage, but also entails conditions where the crisis is not manifest but "potential".

As stated by Pollio (2010), the company's legislative choices can be placed on a descending scale where the procedures, both out-of-court and in-court, are placed according to their degree of utility to the conservation of the business integrity, as proposed in *Figure 2.3.*

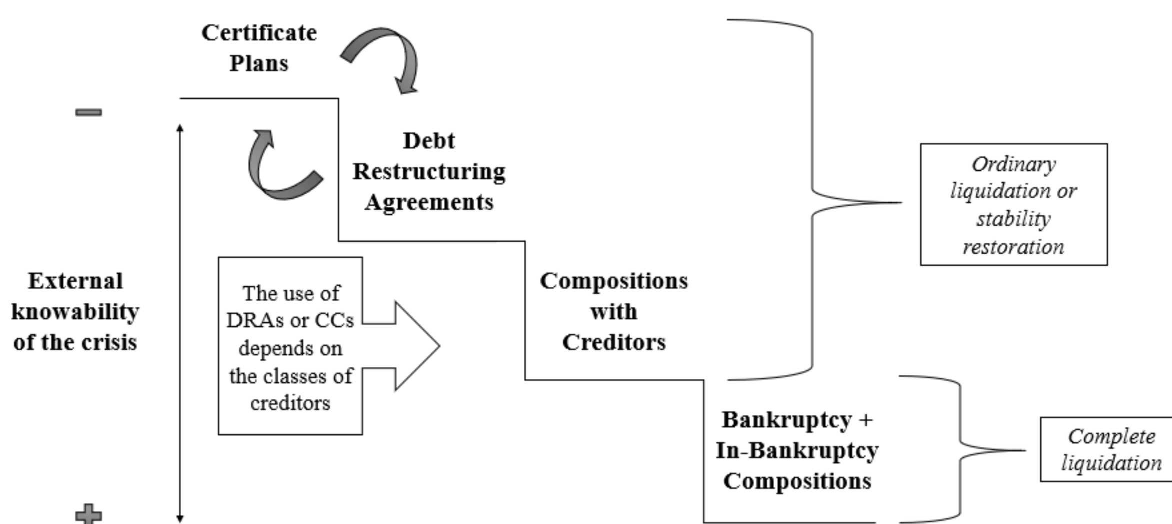


Figure 2.3 – Italian legal tools for the crisis resolution. *(Adapted from Pollio (2010))*

[17] According to a research of the Italian Ministry of Justice, it is estimated that the average duration of a bankruptcy procedure (fallimento) in 2018 has been between 5.2 and 16.1 years, in the best and worst performing Italian court, respectively. Moreover, an analysis conducted on insolvency procedures occurred between 2000 and 2007, has shown averagely a recovery rate of 26.5% for secured securities and 3.1% for unsecured securities.

In fact, corporate restructuring has to be intended as a process aimed at the recovery of trust at the eyes of the environment in which the firm operates, with particular attention to the restoration of relations with creditors (Pollio 2010). In this regard, as visible from *Figure 2.3*, the key element for the choice of the most appropriate legal tool is the severity/knowability of the corporate crisis by third parties. In fact, the selection of a wrong instrument could irreversibly jeopardize the permanence of the business on the market since the loss of confidence by stakeholders could harm the concrete restoration of the business. Thus, certificate plan (*ex art. 67, co. 3, lett. d, l. f.*) is the most appropriate instruments for restoring the firm's credibility while avoiding the previously mentioned unpleasant side-effect of stakeholders' confidence loss. Descending the scale and at higher levels of crisis knowability, Pollio (2010) positioned debt restructuring agreement (*ex art. 182-bis, l. f.*) and composition with creditors (*ex art. 160, l. f.*). Under these tools, the riskiness of the firm is disclosed to external stakeholders too and their confidence in the business viability is compromised. The final step is characterized by an irreversible and externally manifest crisis in which the only implementable instruments are bankruptcy (*Title II, Chapter I, l. f.*) and in-bankruptcy composition (*ex art. 124, l. f.*), aimed at the liquidation of the company.

2.5.1.Certificate plan

The certificate recovery plan (*Piano attestato di risanamento*; *ex art. 67, co. 3, lett. d, l. f.*) is commonly intended as an "informal restructuring procedure" under which the legislator grants a considerable freedom of initiative to the debtor. In fact, it deviates both from the "procedural restructuring" envisioned by the composition with creditors and from the "markedly private reorganization" provided for in the debt restructuring agreement (Pollio 2010).

The implementation of this juridical tool presupposes a situation of transitional crisis considered to be surmountable in the sight of the entrepreneur of the distressed business. The legislator, pursuant art. 67 co. 3 lett. d), provides for the possibility to submit a unilateral plan addressed to creditors, in practice a formalized turnaround plan, which should be appropriate for the dual objective of enabling the restructuring of the company's debt exposure and ensuring the rebalancing of its financial condition. Moreover, the plan is not subject to prior examination of the court nor does it necessarily require the approval of creditors. Specifically, the certificate plan may be based on agreements with the firm's main creditors, typically key capital providers

and suppliers, targeting debt restructuring and, thus, requiring the acceptance of the contracts underlying the plan.

In the first place, according to the Italian Corporate Crisis Code (ex art. 56, co. 2), the content of the certificate plan shall disclose:

- the company's economic and financial condition, with regard to its current and historical data, and the main causes of its distress;
- the intervention strategies and the time needed to ensure financial stability, with a focus on creditors involved in the plan and the amount of claims for which the renegotiation is proposed;
- a forecast of the interventions' results carried out in order to allow the verification of their implementation, as well as the instruments to be adopted in the event of a deviation between the objectives of the certificate plan and the business ongoing performance.

Secondly, in the event of failure and as a protective initiative towards who have trusted the good result of the certificate plan, the Italian legislator states that "the acts, the payments and the guarantees on the assets of the debtor" are exempt from claw-back actions, provided that an adequate certificate plan is implemented. In fact, the law guarantees this form of protection when the reliability of the accounting data and the feasibility of the certificate recovery plan is attested by an external registered auditor, appointed by the debtor, who is, moreover, eligible for the role of insolvency administrator. The expert's positive assessment of the plan triggers the judgement of merit of the initiatives set out in the plan that resist even in the event of failure and bankruptcy (in which the acts in question will therefore remain unassailable and the persons who performed them will, in principle, be exempt from any liability).
Compared to other legal tools envisaged by the Bankruptcy Law, the certificate plan is not subject to public disclosure, unless the debtor requests its publication in the Companies' Register in order to gain tax benefits, namely those potentially resulting from the debt write-off.

2.5.2.Debt restructuring agreement

The debt restructuring agreement (*Accordo di ristrutturazione del debito; ex art. 182-bis, l. f.*) represents a para-juridical (or hybrid) crisis resolution plan-based instrument of a private-contractual nature. In fact, the legislator lays down an out-of-court phase in which the distressed entrepreneur must negotiate with creditors, followed by an in-court phase under which the agreement is validated and deposited at the Companies' Register. Debt restructuring agreements shall necessarily require an active participation of creditors and provide for an anticipated intervention of the judge, compared to what happens under the hypothesis of a certificate plan, in which the control is only possible following its failure.

First of all, art. 182-bis stipulates that the debt restructuring agreement must be submitted to creditors accounting for at least 60% of their debt exposure and it also provides for the regular and full satisfaction of those who do not adhere to the plan. These creditors must be paid in full, that is, for the amount of principal and interest, within a period of 120 days from the agreement's validation date, in the case of claims already past due at that date or credits not yet expired at the date of approval. Furthermore, also in this case, the external expert plays the key role of attesting the truthfulness of the accounting data and the viability of the agreement, with particular reference to its suitability in assuring the full payment of the uninvolved creditors. This implies that the auditor is called, again, to express both a judgement of the abstract suitability of the agreement (and the underlying plan) in ensuring the restoration of normal solvency of the debtor, and a judgment of feasibility in concrete, which requires the data to be accurate and the predictive assumptions to be rationale.

In terms of content, these agreements concern the usual debt restructuring strategies, presented in *Paragraph 2.2.5.*, such as deferral of payments, debt-equity swaps, total or partial waiver of interests due, debt issuance, new financing. From the firm's point of view, the plan could provide for the continuation of the business activity by the debtor himself, the entrustment to a third party, the transfer of all or a part of assets to creditors or the company's liquidation.

Once the debt restructuring agreement has been validated and deposited at the Companies' Register, for 60 days from its publication no creditor may pursue or prosecute individual executive and precautionary actions against the debtor, nor acquire pre-emption rights unless agreed. Secondly, within 30 days from the publication of the agreement, creditors may submit a statement of opposition. The court, once having decided on oppositions, approves the debt restructuring agreement with a validation decree (*decreto di omologazione*) claimable within

15 days of its publication in the Companies' Register. Thereafter, the legislator does not provide any further court supervision in the debt restructuring agreement implementation.

Despite a certain court control, this legal instrument grants advantages and a considerable freedom of initiative to debtors who may realize debt restructuring agreements tailored on their needs and, in turn, maximize the plan's probability of approval and its effective enforcement (Danovi et al. 2020).

2.5.3.Composition with creditors

In recent years, the composition with creditors (*Concordato preventivo*; *ex art. 160, l. f.*) has been the most revisited legal instrument by the legislator, becoming the main alternative to bankruptcy, as an insolvency procedure available to a commercial entrepreneur who is in a state of crisis or insolvency. Thus, according to the law (*ex art. 160, l. f.*), its primary focus is debt restructuring and the satisfaction of creditors to be pursued, at the discretion of the debtor, "by any means". The previous sentence indicates that the ultimate aim of the agreement is not necessarily the continuation of the business activity, but it may also entail the payment of claims though a corporate liquidation procedure.

First of all, the admission to the procedure requires a petition to the court by the debtor, together with a specific documentation. In particular, according to art. 161, the debtor must submit to the court an updated report with respect to the economic and financial condition of the business, an analysis and estimation of the assets, the list of creditors and their specifications, and a precise description of the plan. The documentation shall also be accompanied by the report of an external auditor, appointed by the debtor, who must attest the truthfulness of the accounting data and material feasibility of the plan. In the case of a composition with creditors aimed at the business continuity, the external professional must certify that the pursuit of the going concern hypothesis is functional to the best satisfaction of the creditors. Furthermore, the legislator provides for the entrepreneur the possibility to file the application for the composition with creditors by providing the last three financial statements and the firm's list of creditors with the indication of their respective claims, reserving the right to submit the rest of the documentation within a term set by the court, between 60 and 120 days (*concordato in bianco*).

Then, after the court has analyzed and verified the documentation received and the feasibility of the agreement, the procedure provides for the appointment of a delegate judge, a legal commissioner and the scheduling of the creditors' vote expression which must take place within

120 days. The composition with creditors has to be approved by creditors representing the majority of the outstanding total claims or, if creditors have been divided into classes by the debtor, the agreement has to be accepted by the majority of creditors in the majority of classes. Once approved, the composition with creditors has to be validated by the court within six months from the presentation of the petition (*ex art. 180, l. f.*), and the company's management activity has to be supervised by the legal commissioner, in relation to the correct application of the agreement.

In addition, where the proposal is approved by the majority, as stated before, the bindingness of the agreement applies to dissenting creditors as well and, according to art. 168, the publication of the deal in the Companies' Register denies creditors the possibility of initiating or continuing executive and precautionary actions against the debtor's assets, nor allow them the acquisition of pre-emption rights unless agreed.

As stated in art. 84 of the Corporate Crisis Code, the discipline related to the composition with creditors intends to facilitate the recovery of the business activity and, therefore, the going concern assumption. The law specifies that business continuity (*concordato in continuità*) can be either direct when the company remains in the hands of the entrepreneur who presented the agreement request, or indirect when the management of the company in operation or the resumption of the activity is entrusted to a subject other than the debtor. The legislator, thus, specifies the admissibility of the application for liquidation (*concordato liquidatorio*) which provides for the satisfaction creditors' claims through the proceeds of assets' dismissals.

Finally, each creditor may advance the request for the termination of the composition with creditors whenever the debtor fails to fulfil the obligations agreed in the plan (*ex art. 186, l. f.*).

2.5.4.Filing for bankruptcy

Bankruptcy (*Dichiarazione di fallimento; Title II, Chapter I, l. f.*) is an in-court procedure provided by the Italian legislator as a resolution instrument for corporate distress. According to art. 5, the state of insolvency of the entrepreneur is manifest when he is declared bankrupt because of the inability to meet his obligations regularly and this declaration may be submitted by the debtor, by one or more creditors or at the request of the Public Prosecutor (*ex art. 6, l. f.*). In particular, when the entrepreneur files for a bankruptcy procedure he must deposit at the Registry of the Court the specification of the company's accounting and taxation data of the latest three financial years accompanied by a detailed list of creditors and their corresponding claims (*ex art. 15, l. f.*).

Once the documentation and the application have been received, the court verifies the existence of the bankruptcy assumptions, i.e. the business state of insolvency, and if so, a bankruptcy declaration judgement is delivered: from now on the legal procedure is open. Thus, the bankruptcy court represents the authority invested with the entire bankruptcy procedure, that is, the appointment, revocation and replacement of the other bodies of the process, namely the bankruptcy judge and the official receiver.
The bankruptcy procedure provides for three stages: (1) the analysis of the company's liability side, with a verification of its creditors and their specific claims; (2) the forced liquidation of assets; (3) the allocation of the resulting resources to creditors on the basis of the project submitted by the insolvency administrator and declared enforceable by the court.
In this regard, the official receiver is entrusted with the task of providing for the administration of the debtor's assets and carrying out all the operations envisaged by this legal tool under the supervision of the bankruptcy judge and the creditors committee. In fact, he is in charge of conducting the inventory process, providing an analytical description and an estimate of the assets' value, on the basis of which a liquidation plan shall be prepared and submitted for the approval of the creditors committee within 60 days from the drafting of this document. According to art. 104-ter, the plan must lay down the terms and the conditions of the assets arrangement which, in addition to their piecemeal disposal, contemplate the possibility of the business continuity, even in respect of specific branches, where its interruption may provide severe damage to the firm and provided that it does not adversely affect creditors (*ex art. 104, l. f.*). Under this circumstance, the official receiver is responsible for the management of the company's provisional administration, also having the task of convening the creditors

committee at least every three months in order to provide information about the performance trend and to decide on the advisability of continuing the operations.

Moreover, the Italian legislator provides for an alternative in-court end of the bankruptcy proceedings, aimed at its early closure, namely the bankruptcy agreement (*concordato fallimentare, ex art. 124, l. f.*). The law requires one or more creditors, the debtor[18], or a third party to submit the proposal for an agreement oriented at the partial or total satisfaction of creditors themselves. The proposal may entail the division of creditors into classes, each of them characterized by a different treatment, the restructuring of debt and the repayment of claimants, through whichever form, and enters into force if approved by the majority of creditors. The bankruptcy agreement, then, ceases when all the obligations assumed are fulfilled or in case of its invalidity or resolution. To wrap up, the bankruptcy arrangement could be beneficial for both the debtor, who gets rid of his liabilities, and creditors, who will receive a faster and higher payment than they would with the liquidation of assets under a bankruptcy procedure.

From this brief overview, it is evident the contribution of the Italian Bankruptcy Law in coping with corporate distress in order to safeguard the business continuity. Thus, the few legal tools provided, each of them with different features, enhance the use of contractual and quasi-contractual agreements as a prompt response to the downward spiral of crisis.
In fact, time is key in the management of corporate decline: the probability of business recovery will be higher as the debtor tackle distress at its early phases (Danovi et al. 2020). To meet this need, the Italian legislator has recently introduced a legal procedure to support firms in identifying the very first warning signs of distress. In particular, the supervisory board of auditors will have both the right and the duty to start an early warning procedure on the basis of critical threshold designed to trigger the alert procedure (Riva et al 2018).

[18] Provided that one year has passed from the date of bankruptcy declaration and demonstrated that it has not been two years from the decree making enforceable the passive status (ex art. 124, l.f.).

CHAPTER 3: EMPIRICAL ANALYSIS: RATIONALE AND METHODOLOGY

3.1. Introduction

After having discussed in the previous chapters the fundamental characteristics of the corporate crisis condition, in particular in terms of causes and solutions, it will now be possible to delve into the empirical analysis of the phenomenon with regard to the Italian stock market.
Indeed, the extent of the impact of the corporate distress requires its external disclosure to ensure investors' protection and awareness in relation to their portfolio choices and, in this context, it becomes key for the legislator to guarantee an adequate level of information transparency. As regards the Italian system, Banca d'Italia and CONSOB are the main institutions invested with the supervisory authority on markets and financial intermediaries.
In particular, CONSOB carries out its role by making use of two specific tools: the black and the grey lists. The inclusion in these "watch lists" entails the provision of periodical addition information, namely monthly or quarterly, which is triggered by the opinion of auditors based on financial statements of listed companies in distress.

For the purpose of the empirical analysis, this chapter will first cover the regulatory framework which allows CONSOB to require additional information disclosure and the main features of its supervisory role (*Paragraph 3.2*). Afterwards, *Paragraph 3.3* will deepen into an overview of companies included in the lists from 2009 to today, with an eye to shifts from one list to the other and the reasons for their removal from the surveillance lists. Then, the analysis will focus on the companies currently under observation, referring to their fundamental characteristics.

The chapter will then present the rationale and methodology underlying the empirical analysis carried out in this dissertation. In fact, the main purpose is the investigation of what differentiates a successful turnaround process from strategic measures that are not sufficiently adequate. To answer this question, it was deemed interesting to compare three different companies, namely one in the black list, one in the grey list and one recovered, over a comparative period of 5 years, from 2015 to 2019. In this context, *Paragraph 3.4* will introduce the basis of the empirical analysis and will, therefore, present the description of each of the companies selected with reference to its group's structure and history.

3.2. CONSOB and the supervision of listed companies

Listed companies, i.e. those whose shares are traded on a regulated market, are subject to substantial transparency obligations aimed at protecting investors and guaranteeing the sound development of the industrial system and the market itself. Indeed, the economic environment is characterized by agency problems, specifically information asymmetries, which hinder the proper functioning of the markets and the correct investor's portfolio allocation. In this context, the promotion of external information flows mitigates these issues and provides benefits for both current and potential shareholders, and the ones leading the firm, namely directors and managers. In fact, the availability of up-to-date and sound information allows investors to take a proper investment decision and enables the firm to lure outer investments, which represent financial inflows necessary for its viability. In light of this, the role of control authorities is vital in improving market transparency by imposing additional reporting requirements on financial actors who are, therefore, subject both to corporate law and capital markets law.

With attention to the Italian system and according to art. 2325-bis (Italian Civil Code), companies which shares are listed on regulated markets, or widely distributed among the public, are subject to the dispositions of Title V, Book V of the Civil Code. Furthermore, issuers of financial instruments are disciplined by the Consolidated Law on Finance (*Testo Unico della Finanza* or T.U.F.) introduced in 1998 by the Legislative Decree n. 58. The latter represents the main body of the Italian legislation in the fields of financial markets and intermediaries since it reunites and rationalizes a large part of provisions issued in recent decades, making it compatible with the entire spectrum of the EU legislation on regulated markets.
Thus, the T.U.F. invests Banca d'Italia and CONSOB (*Commissione Nazionale per la Società e la Borsa*) with the supervisory authority on markets and financial intermediaries, enshrining their roles and responsibilities. In addition, issuers of financial instruments are also disciplined by regulations and codes of conduct of Borsa Italiana.

In detail, Part IV of the Consolidated Law on Finance concerns general and specific dispositions regarding the guidelines to which share issuers operating in regulated markets are subordinated. In particular, CONSOB is an independent administrative authority established with the law n. 216/1974 and, according to art. 91 (T.U.F.), it exercises its powers "having regard to the protection of investors as well as the efficiency and transparency" of capital markets, aiming at the reduction of information asymmetries and market failures. To this end, it is the competent authority for ensuring the transparent behavior of all market participants and the accuracy and completeness of information disclosed in financial prospectus. Therefore, CONSOB enforces

a regulatory supervision since it governs the reporting obligations addressed to listed companies and the provision of investment activities and services by intermediaries. The essential tools at its disposal are formal communications, opinions and recommendations. Furthermore, it also plays the role of sanctioning supervisor referring to supplementary and interdiction function. Thus, CONSOB has the authority of temporarily or permanently delisting a company from the capital market in case it envisages irregularities and for the protection of investors.

According to art. 115, part 1, letter c (T.U.F.), CONSOB may carry out inspections at listed firms in order to check accounting data and the truthfulness of information provided. Concerning its informative supervision and whenever it is deemed necessary to the transparency aim, CONSOB may also oblige issuers to provide publicly and without delay privileged and price sensitive information (art. 114, T.U.F.), also establishing the methods and terms of communication, without prejudice to the need for information publication in national daily newspapers (art. 115, T.U.F.).
In fact, for the purpose of the analysis carried out in this dissertation, paragraph 1 and 5 of art. 114 (T.U.F.) provides the legal basis for the control and surveillance instruments at the disposition of CONSOB, known as "black list" and "grey list"[19], envisaging the request of periodical information to a group of listed companies, under specific circumstances. In particular, the introduction in the two frequently updated "warning lists" is triggered by the auditors' opinion with regard to uncertainties about the going concern of listed firms and upon the analysis of their annual or interim financial statements.

In 2002, the black list has been the first surveillance tool to be introduced, as a result of the role of transparency guarantor and investors' protector represented by CONSOB. In fact, in force of art. 114 of the T.U.F. and at a note issued by CONSOB, a listed firm showing financial strains may be introduced in the black list and, thereafter, will have the duty to provide a specific informative set on a monthly basis.

Specifically, the inclusion in the black list is decided by CONSOB on the basis of two elements:

- When the listed company has revealed losses that account for more than 1/3 of the statutory capital and it is in the case referred to in art. 2446 of the Italian Civil Code;
- When auditors do not certify financial statements or report concern about the business going concern.

[19] The new companies that join the black and grey list are periodically reported in the CONSOB website, even if the publicity given is not adequate in relation to the interest manifested by investors (Danovi et al. 2015).

Under these circumstances, it appears evident the investors' need to be regularly informed about the performance of critical management profiles of listed companies under surveillance. With regard to the information content, blacklisted firms have the duty to provide a monthly press release containing the following information:

- Net financial position of the Parent company and the Group, highlighting short-term and medium-long term items separately;
- Updates regarding the economic situation, bank amount and deviations from the budget;
- Related party transactions of the Group and of the Parent company;
- Overdue borrowing positions specified by type, namely the analysis of financial, commercial, tax and social securities;
- Cross default clauses;
- The description of covenants, the failure to comply with them and enforcement actions undertaken by creditors.

Therefore, the press release should contain any information deemed relevant to the assessment of the development of the company's financial condition. Moreover, should the reasons for the inclusion in the black list disappear, listed companies may ask for their removal from the monthly surveillance and, in such cases, CONSOB generally insert them in the grey list, as a precautionary act.

Indeed, the grey list has been introduced in 2009 as a response to the need to monitor companies for which auditors have certified the budget but have expressed doubts about their possibility to survive in the market over time, representing a less precarious financial condition than blacklisted firms. As well, these companies are subject to disclosure obligations similar to those set out above, but with a different frequency, i.e. on a quarterly basis.
Grey listed firms are required to integrate annual and half-yearly financial reports with relevant information and press releases in order to alert investors about the business performance. However, according to the Legislative Decree n. 25 of the 15th February 2016, the obligation to publish the interim management report related to the first and third quarter lapses. Despite this, firms may still voluntarily fulfil these information disclosures by issuing the interim management report via a press release.

The permanence in the black and grey list may be subject to events which constitute a reason for the exit. Specifically, there are three possibilities to exit from the warning lists:

- The firm's stocks are delisted from the Stock Exchange;

- The auditor expresses an unqualified opinion on the firm's financial statements;
- The company files for liquidation or bankruptcy and ceases its activities.

From this brief analysis of the Italian legislation in support of warning lists under CONSOBS's supervision, the purpose of protection and information transparency towards investors is evident. Actually, these surveillance instruments represent a bridge between the pool of investors and listed companies by potentially reducing bankruptcies due to inadequate market information. As seen, the degree of concern decreases as firms included in the black list "retrocede" in the grey list. Thus, despite being under surveillance and financially unstable, these companies now have a lower degree of risk and a slightly improved reputation than before.

3.3. Overview of the black list and grey list monitored by CONSOB 2009-2020

Following the review of the relevant legislation on regulated market surveillance carried out by CONSOB, in the following paragraph it will be possible to undertake an overview of the evolution of the black and grey lists in the period from 2009 to 2020, focusing then on the main characteristics of listed companies included in these "warning lists" to date, i.e. December 2020.

Before going into an analysis strictly focused on the firms under observation, it is necessary to briefly define the fundamental aspects of the Italian equity trading system, managed by Borsa Italiana. Indeed, it is characterized by three main markets: the market for investment vehicles (MIV), the alternative investment market (AIM) and the electronic stock market, also known as the main Italian market (MTA). MIV is the regulated market dedicated to the listing of vehicles that invest in the real economy, while AIM has been introduced more recently and regards small and medium Italian companies with high growth potential. Conversely, MTA represents the main regulated Italian market and it is intended for large and medium-sized companies. In turn, MTA is divided into Blue Chip, Star and Standard, depending on the business size and specific requirements to which they are subject. In particular, the Star segment is characterized by medium companies with capitalization between €40 million and €1 billion which undertake to comply with particular commitments in terms of transparency, liquidity and corporate governance.

The analysis conducted on the companies under CONSOB's observation has emphasized how, until today, "warning lists" have only involved firms regulated under the MTA. Into specifics,

the overview concerns 88 listed companies which were subject to periodical additional information (either monthly or quarterly) according to art. 114 (T.U.F.), covering the period between December 2009 until December 2020. This review aims to outline and focus on the dynamics regarding the evolution of the black and grey list over the last 12 years, having regard to dwell on their composition year by year and highlighting companies' most relevant movements in terms of shifts from one list to the other, failure or exit due to recovery or delisting from the market. Furthermore, it should be noted that the analysis concerns an overview as at 31/12, as reported in detail in *Appendix 1*.

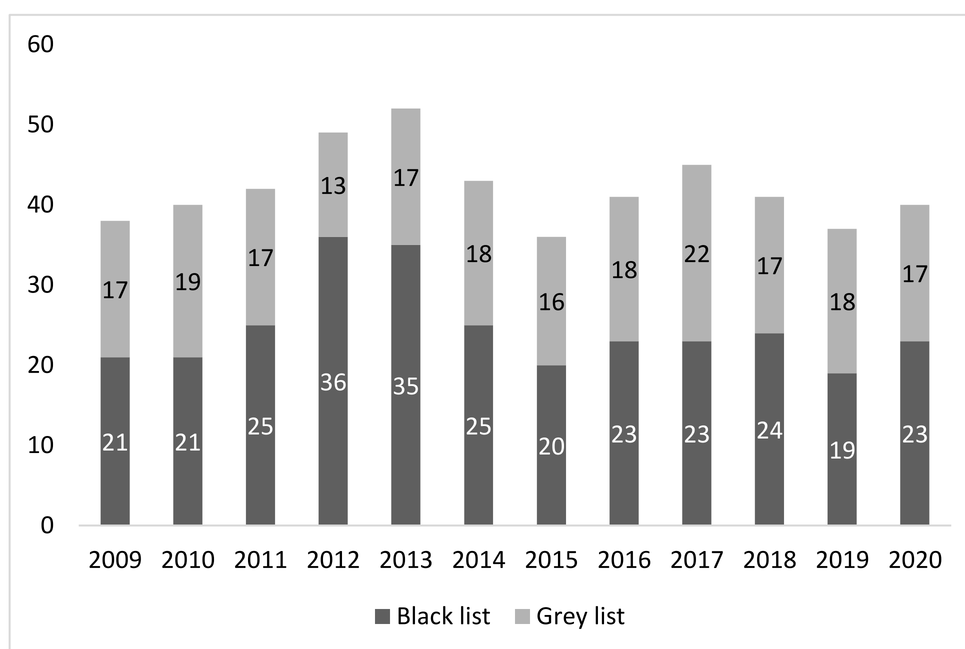


Figure 3.1 – Evolution in the composition of CONSOB Black list and Grey list, 2009-2020. *(Personal elaboration from CONSOB)*

As it can be noticed from *Figure 3.1*, the number of companies under observation has undergone limited variations from one year to the other, although 2012 and 2013 saw the largest number of supervised firms under the black list. Specifically, 2012, compared to the previous year, was characterized by an increase of 7 supervised firms split as follows: 6 new companies in the black list, 2 new companies in the grey list, offset by the exit of one recovered company. With respect to internal movements, it is worth mentioning that 2012 has also reported the largest number of companies which have shifted from the grey into the black list: in particular, 6 companies shifted from the grey into the black list and just one company moved from the black into the grey list.

Regarding 2013, the absolute increase of firms under observation is relative to 3 units but, as for 2012, the two lists observed several internal movements from the grey into the black list

and 9 new entries (3 in the black and 6 in the grey list) counterbalanced, contrary to 2012, by 6 companies leaving because of bankruptcy.
Indeed, it can be assumed that the greater number of listed companies subject to monthly reporting in the years between 2011 and 2013 is due not only to more extensive controls by auditors but, above all, to the crisis which hit the economy in those years and has worsen the most precarious business conditions.

Furthermore, another interesting aspect of this overview regards listed companies stuck within one of the two lists for more than six years. This is, actually, the case of Bialetti S.p.A., Biancamano S.p.A., Eems Italia S.p.A., Gabetti Property Solutions S.p.A., Gequity S.p.A., Netweek S.p.A., Olidata S.p.A., Seri Industrial S.p.A., Titanmet S.p.A. and Zucchi S.p.A., blocked in the black list for at least seven years, which indicates their precarious situation in terms of economic and financial results, for which auditors have been unable to see an improvement such as to allow a shift into the grey list.
On the other hand, Aedes S.p.A., Bastogi S.p.A., Beghelli S.p.A. and Eukedos S.p.A. have been subject to quarterly information disclosure for at least six years, constituting a better condition than the previous cases but still unstable to guarantee a turnaround.

In fact, it is possible to envisage a more detailed dynamic path through the comparison between the composition of the two "warning lists" and the partition of companies leaving the black and grey lists, as displayed in *Figure 3.2*, differentiated according to the exit reason.

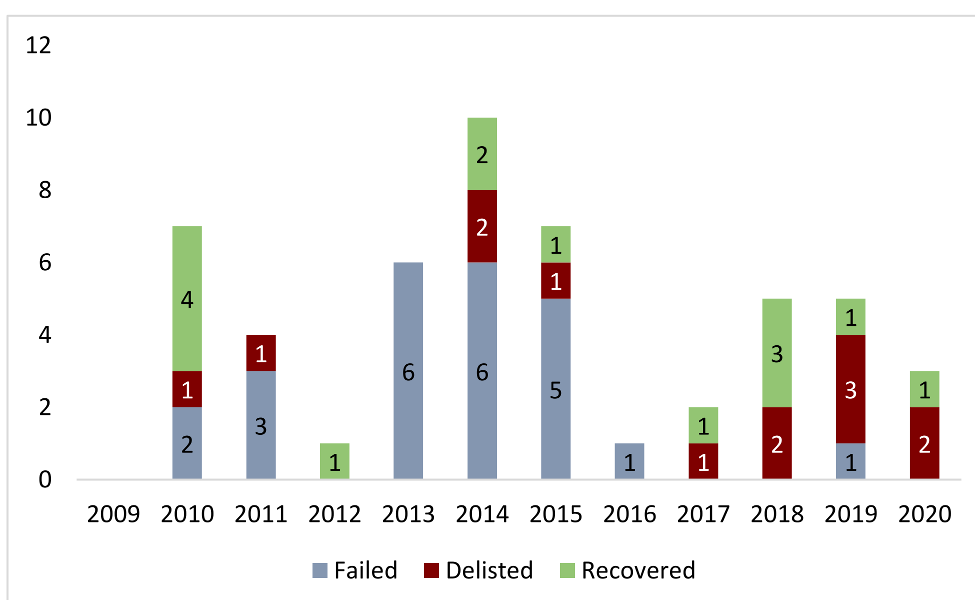


Figure 3.2 – Composition of companies leaving CONSOB's supervision, 2009-2020. *(Personal elaboration from CONSOB and Borsa Italiana)*

As reported in *Figure 3.2*, over the 12 years between 2009 and 2020, 50 companies have left the black and the grey lists. Among these, 24 (48%) were unable to effectively manage the crisis and, therefore, have been liquidated. Moreover, as can be seen in more detail from *Appendix 1*, almost all of the bankrupt firms, with the exception of Cobra S.p.A., were part of the black list, thus proving the financial distress blacklisted companies face.
Indeed, it is interesting to note that the majority of failed firms are concentrated in the period between 2013 and 2015. In fact, there seems to be a correlation between the highest number of companies newly entering the black list, firms shifting from the grey into the black list in the period 2011-2013 (as displayed in *Figure 3.1*), and the number of failed firms in the following years, i.e. between 2013 and 2015. This could mean that turnaround measures taken to safeguard business continuity were not sufficient or were delayed with respect to the onset of the first signs of decline and economic crisis.

As for the companies that were able to successfully overcome the crisis, it should be noted that all of them were previously included in the grey list. Although they represent the 28% (14) of the companies leaving the CONSOB supervision, they indicate that it is possible to carry out winning turnaround strategies capable of improving the financial and economic condition of the business. Among recovered companies, the case of Eems Italia S.p.A. and Bioera S.p.A. are remarkable. Thus, these two companies successfully emerged from the grey list in 2010 and 2014 respectively, but then returned under CONSOB surveillance in the following years. In particular, Eems Italia S.p.A. returned to the black list in 2012 and, as well, Bioera S.p.A. in 2020.

Finally, 12 companies are still active but no longer under CONSOB observation due to their delisting from the regulated market. The most recent case is of October 2020, namely the suspension of Stefanel S.p.A. from Borsa Italiana for the admission to insolvency proceedings, although still resulting under the black list in December 2020.

Following the overview regarding the evolution of the black and grey lists from 2009 to 2020, hereafter follows an analysis of the main characteristics concerning the two “watch lists” at the time this dissertation has been elaborated, i.e. December 2020. This preliminary analysis aims to present the situation of the last CONSOB bulletin in order to have a picture of the companies currently under observation, divided into black and grey lists, in terms of business dimension, profitability, indebtedness, liquidity condition, market capitalization and the main procedures undertaken, before going into the empirical analysis. In particular, data on which the analysis is based are taken from companies’ annual financial statements, AIDA database published by

Bureau van Dijk, Borsa Italiana and Thomson Reuters Eikon, with reference to the latest financial statements available to the public.

Below are the lists of companies subject to periodical disclosure obligations (ex art. 114, T.U.F.) updated at 31/12/2020 and accompanied by the date of CONSOB request and the industry to which they belong (*Table 3.1* and *Table 3.2*).

Black List Companies	**Date of CONSOB request**	**Industry**
ACOTEL GROUP S.p.A.	08 November 2016	Telecommunications
ALGOWATT S.p.A.	12 June 2018	Utilities
A. S. ROMA S.p.A.	21 September 2020	Media
BIALETTI INDUSTRIE S.p.A.	27 October 2011	Consumer Products and Services
BIANCAMANO S.p.A.	12 July 2013	Utilities
BIOERA S.p.A.	08 May 2020	Food, Beverage and Tobacco
CHL-CENTRO HL DISTRIBUZIONE S.p.A.	08 November 2016	Retail
CLASS EDITORI S.p.A.	06 November 2020	Media
EEMS ITALIA S.p.A.	13 September 2012	Technology
EPRICE S.p.A.	26 June 2020	Consumer Products and Services
FIDIA S.p.A.	06 November 2020	Industrial Goods and Services
FULLSIX S.p.A.	10 October 2019	Technology
GEQUITY S.p.A.	17 March 2010	Financial Services
ITWAY S.p.A.	05 July 2018	Technology
NETWEEK S.p.A.	07 June 2012	Retail
OLIDATA S.p.A.	22 April 2010	Technology
RISANAMENTO S.p.A.	23 June 2017	Real Estate
SERI INDUSTRIAL S.p.A.	14 July 2009	Industrial Goods and Services
STEFANEL S.p.A.	29 July 2016	Retail
TISCALI S.p.A.	14 July 2009	Telecommunications
TITANMENT S.p.A.	27 October 2011	Financial Services
TREVI - FINANZIARIA INDUSTRIE S.p.A.	10 December 2018	Construction and Materials
ZUCCHI S.p.A.	16 June 2010	Consumer Products and Services

Table 3.1 – Black List: Companies under CONSOB supervision – December 2020. *(Personal elaboration from CONSOB and Thomson Reuters Eikon)*

Grey List Companies	**Date of CONSOB request**	**Industry**
AEDES S.p.A.	08 October 2015	Real Estate
ASTALDI S.p.A.	15 May 2018	Construction and Materials
ATLANTIA S.p.A.	08 May 2020	Industrial Goods and Services
AUTOSTRADE MERIDIONALI S.p.A.	02 April 2020	Industrial Goods and Services
BANCA CARIGE S.p.A.	15 March 2017	Banks
BANCA INTERMOBILIARE DI INVESTIMENTI E GESTIONI S.p.A.	27 April 2017	Financial services
BANCA MONTE DEI PASCHI DI SIENA S.p.A.	08 November 2016	Banks
BASTOGI S.p.A.	12 July 2013	Industrial Goods and Services

BEGHELLI S.p.A.	13 February 2015	Industrial Goods and Services
BORGOSESIA S.p.A.	23 June 2017	Industrial Goods and Services
BRIOSCHI SVILUPPO IMMOBILIARE S.p.A.	01 August 2019	Real Estate
EUKEDOS S.p.A.	17 July 2014	Health Care
GABETTI PROPERTY SOLUTIONS S.p.A.	06 August 2018	Real Estate
IL SOLE 24 ORE S.p.A.	19 December 2019	Media
LVENTURE GROUP S.p.A.	12 July 2013	Financial services
PIERREL S.p.A.	23 May 2019	Health Care
PLC S.p.A.	06 August 2018	Construction and Materials

Table 3.2 – Grey List: Companies under CONSOB supervision – December 2020. *(Personal elaboration from CONSOB and Thomson Reuters Eikon)*

To date, 23 companies belong to the black list and 17 to the grey list, but there have been several movements that took place during the year. Indeed, two companies have shifted from the grey into the black list, namely Eprice S.p.A. and A.S. Roma S.p.A., due to the increase in the indebtedness and the worsening of the net financial position. Furthermore, in November, the black list has seen the entry of two new companies immediately subject to monthly reporting, i.e. Class Editori S.p.A. and Fidia S.p.A. In fact, the deteriorating results were affected by the Covid-19 emergency which has caused the reduction of some activities of Class Editori S.p.A., and a negative market impact, in the case of Fidia S.p.A., that has worsened the crisis that hit the Automotive and Aerospace sectors in 2019.
As well, two new companies have entered the grey list, i.e. Atlantia S.p.A. and Autostrade Meridionali S.p.A., showing a more moderate indebtedness but to be kept under surveillance. Moreover, Tas S.p.A., under quarterly disclosure obligations since July 2017, has successfully overcome financial distress thanks to the economic and financial improvement, leaving the grey list in May 2020.

Moreover, it is also interesting to observe the breakdown of companies in terms of industries, as presented in *Table 3.1* and *Table 3.2*. What is evident is that the sector with the largest number of companies is that of industrial goods and services, which counts 7 companies out of a total sample of 40. This is followed by technology, real estate and financial services sectors, each of them represented by 4 companies. Although these numbers are not such as to draw conclusions, it can reasonably be assumed that the probability of entering the black or grey list also depends on the dynamics of the sector in which a company operates.

Below, with the aim of giving a schematic outline of the different characteristics of the companies included in the "warning lists", it was deemed necessary to exclude those belonging to the financial sector because of their different business model and the preparation of financial statements, typical to financial institutions, that make them not comparable to the other

companies in the lists. Into specifics, from the black list have been excluded Gequity S.p.A. and Titanmet S.p.A., while from the grey list have been excluded Banca Carige S.p.A., Banca Intermobiliare S.p.A., Banca Monte dei Paschi di Siena S.p.A. and Lventure Group S.p.A.

Regarding the companies' dimensionality, *Figures 3.3*, *3.4* and *3.5* break down firms in terms of number of employees, total revenues and market capitalization.

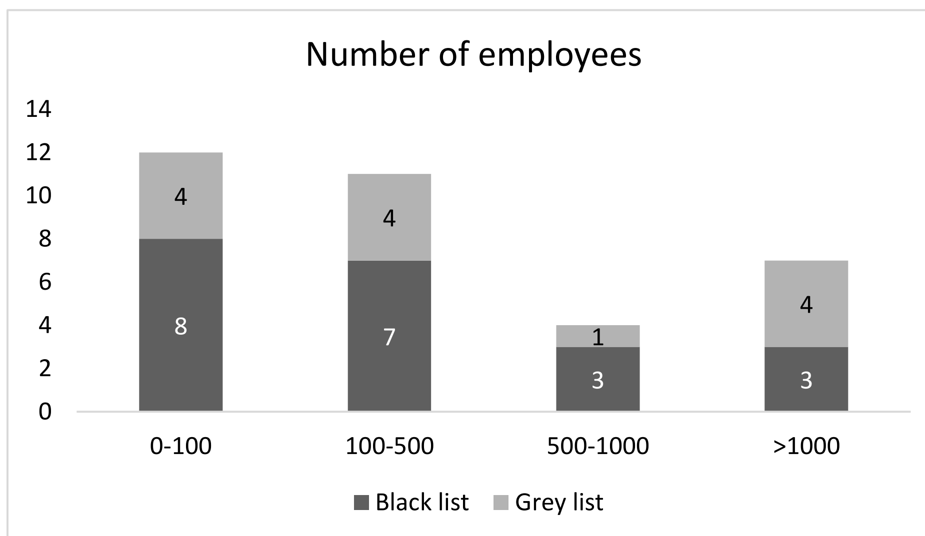


Figure 3.3 – Number of companies by number of employees. *(Personal elaboration from Annual Financial Statements and AIDA database)*

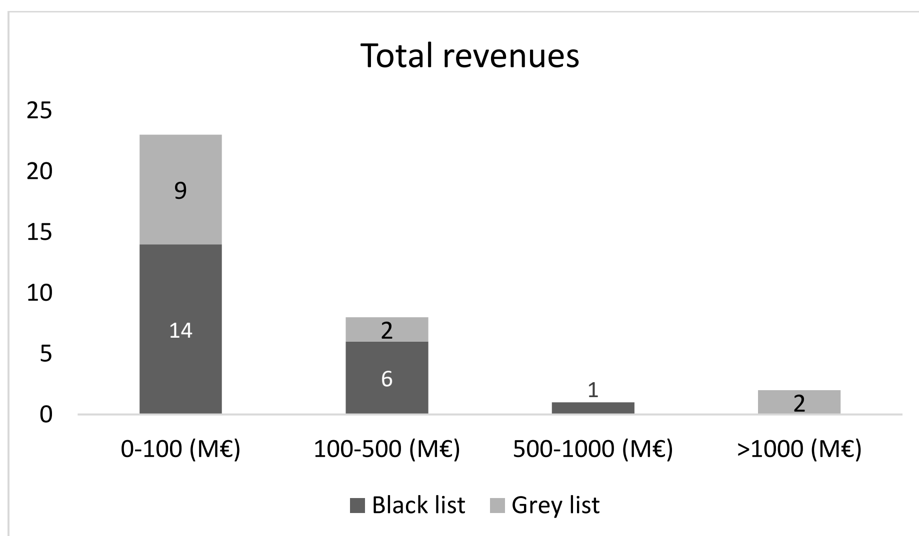


Figure 3.4 – Number of companies according to total revenues clusters (M€). *(Personal elaboration from Annual Financial Statements and AIDA database)*

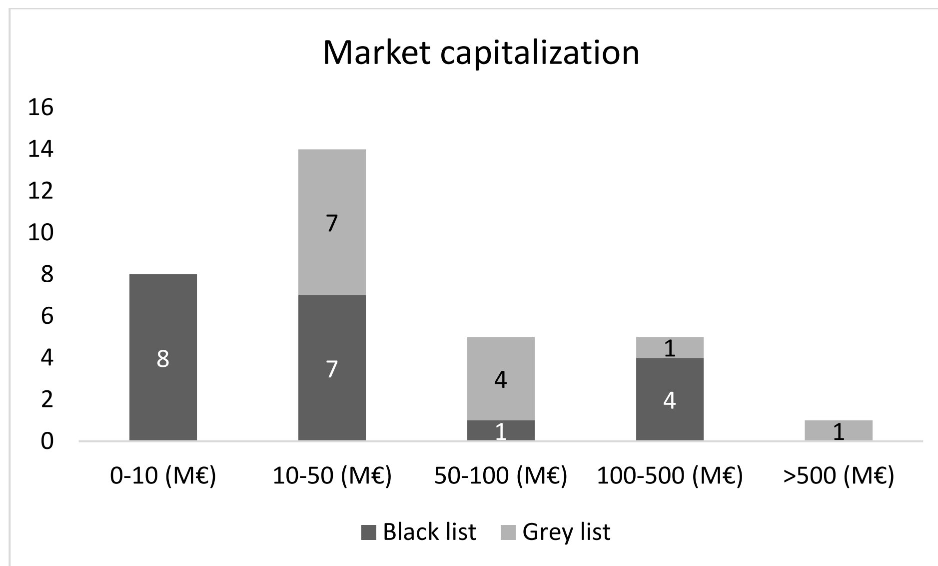


Figure 3.5 – Number of companies according to market capitalization clusters (M€). *(Personal elaboration from Thomson Reuters Eikon)*

Companies of the black and grey lists do not appear totally homogeneous according to the characteristics chosen to describe their size. In terms of number of employees (*Figure 3.3*), the majority (71%) of blacklisted companies have less than 500, 3 have between 500 and 1000 and 3 more than 1000 employees. Thus, firms in the black list present an average of 641 employees, with a median of 297. On the other hand, the grey list appears more inhomogeneous with 4 companies respectively in the clusters of 0-100, 100-500 and with more than 1000 employees, presenting a mean number of 3098 and a median of 332 employees.

With respect to revenues partition (*Figure 3.4*), companies in the black and grey lists present a greater cohesion. The vast majority (68%) have accounted for total revenues of less than €100 million in the last publicly available financial statement, while companies with a turnover between €100 and €500 million are 8 out of 34. Indeed, companies in the black list present average revenues for €92.39 million while those in the grey list have accounted for €1.13 billion, value which appears inflated because of Atlantia S.p.A. which reported a turnover of €12.61 billion.

Taking into consideration the market capitalization in December 2020 (*Figure 3.5*), almost the whole sample's[20] companies (94%) can be attributed to the small cap market segment, i.e. the segment relative to listed firms with a range of capitalization generally between €50 and €250 million. Furthermore, the sample presents an average market value of €425.15 million, which

[20] Stefanel S.p.A. has been excluded because of the recent suspension from Borsa Italiana.

is not particularly representative of the sample because of the €12.10 billion capitalization of Atlantia S.p.A., but provides a more accurate median of €25.37 million.

On the one hand, data just presented give an initial overview of listed companies currently included by CONSOB in the black and grey lists and, on the other hand, they appear representative of the Italian state of affairs, namely composed of firms characterized by smaller size.

Referring now to the operating profitability of companies included in the "watch lists", the following graphs (*Figure 3.6* and *3.7*) will give representation of EBITDA of the latest financial statements available.

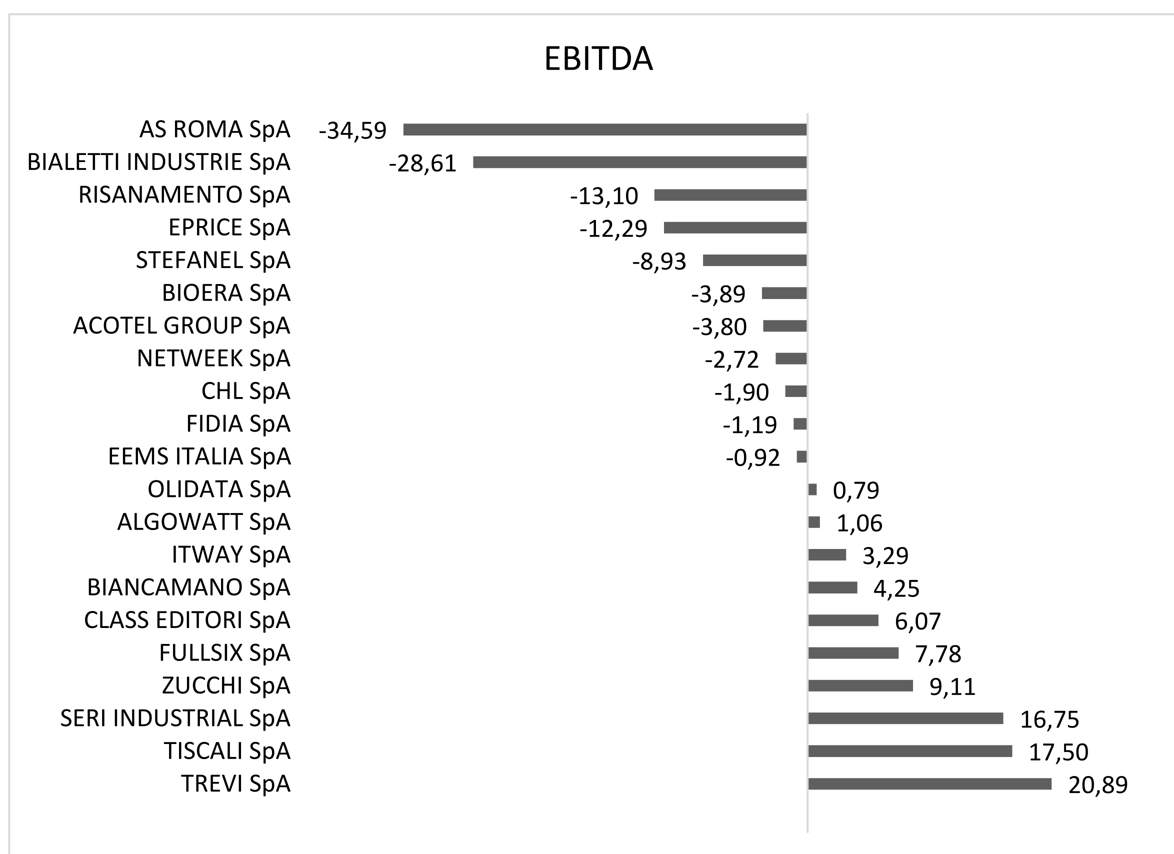


Figure 3.6 – Black list: EBITDA of companies from the last publicly available financial statement (M€). *(Personal elaboration from AIDA database and Thomson Reuters Eikon)*

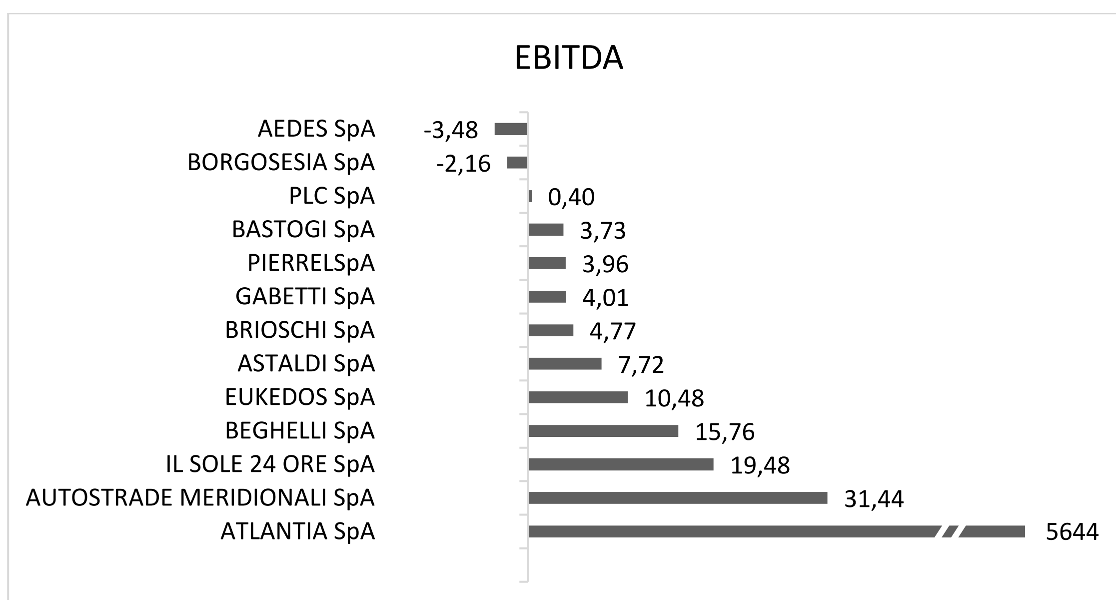


Figure 3.7 – Grey list: EBITDA of companies from the last publicly available financial statement (M€). *(Personal elaboration from AIDA database and Thomson Reuters Eikon)*

Although the sample is not large enough to detect a specific pattern, *Figure 3.6* and *3.7* denote a worse performance in relation to the blacklisted companies. Of the latter, in fact, 11 present a negative EBITDA, reporting therefore losses at the level of the characteristic business activity. This result appears in line with the severe distress these companies are facing, thus reporting an average EBITDA of - €1.17 million, with a median of - €0.92 million. On the other hand, companies of the grey list have performed better in terms of profitability, reporting a generally positive EBITDA. Without considering the incomparable result of Atlantia S.p.A., the sample has observed a positive average value in EBITDA of €8 million, consistent with the specificities of the grey list.

Moreover, by comparing the total debt to the EBITDA of the latest financial statements, it is possible to investigate companies' ability to pay off their incurred debt. Thus, this ratio measures the firm's total obligations to the actual profitability the business brings in, and it is commonly used by credit rating agencies. A low ratio indicates a level of debt that allows the company a greater ability to honor it, while a high ratio generates concern about the indebtedness position. Despite this, the ideal total debt on EBITDA ratio is highly dependent on the specific sector in which the business operates and, consequently, varies with respect to the average capital requirements. Therefore, it is not possible to define ex ante the proper ratio threshold but, generally, a ratio greater than 5 is considered a cause for concern.

Furthermore, negative values in terms of EBITDA reduce the comprehensibility of the ratio which tends to lose meaning, as it is visible in *Figure 3.8* and *3.9*.

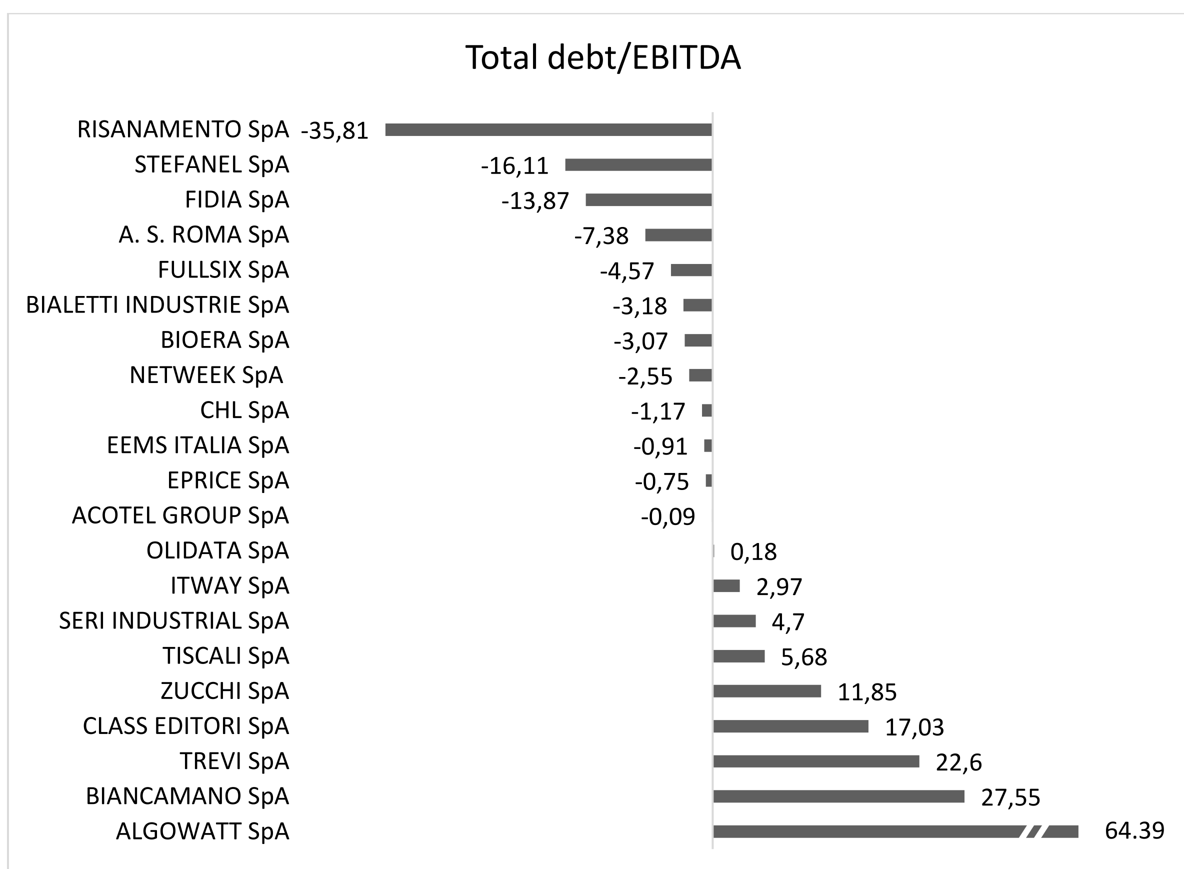


Figure 3.8 – Black list: total debt/EBITDA. *(Personal elaboration from Annual Financial Statements and AIDA database)*

Among the companies on the black list, Tiscali S.p.A., Zucchi S.p.A., Class Editori S.p.A., Trevi S.p.A., Biancamano S.p.A. and Algowatt S.p.A. generate the greatest concern with a ratio higher than 10, representing a high amount of debt compared to the operating result of the latest financial statements. On the other hand, the indebtedness condition of Olidata S.p.A., Itway S.p.A. and Seri Industrial S.p.A. appears sustainable.

Similarly, as shown in *Figure 3.9*, there are few companies with a ratio below the ideal level of 5, namely Il Sole 24 Ore S.p.A., Pierrel S.p.A. and Beghelli S.p.A., while the spotlight is on Gabetti S.p.A., Autostrade Meridionali S.p.A., Atlantia S.p.A., Eukedos S.p.A., Brioschi S.p.A., PLC S.p.A., Bastogi S.p.A. and Astaldi S.p.A., the latter presented a ratio of 392.54 due to the intensive use of capital related to its business.

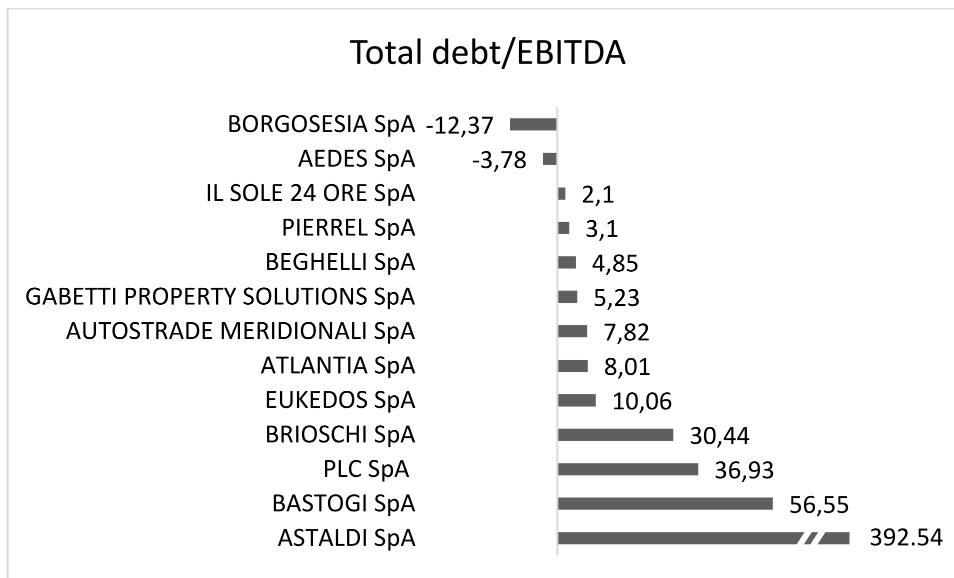


Table 3.9 – Grey list: total debt/EBITDA. *(Personal elaboration from Annual Financial Statements and AIDA database)*

As regards the liquidity and the near-term financial solidity of the black and grey lists, the following graphs (*Figure 3.10* and *3.11*) investigate the companies' ability to keep up with short-term payments in terms of quick ratio.

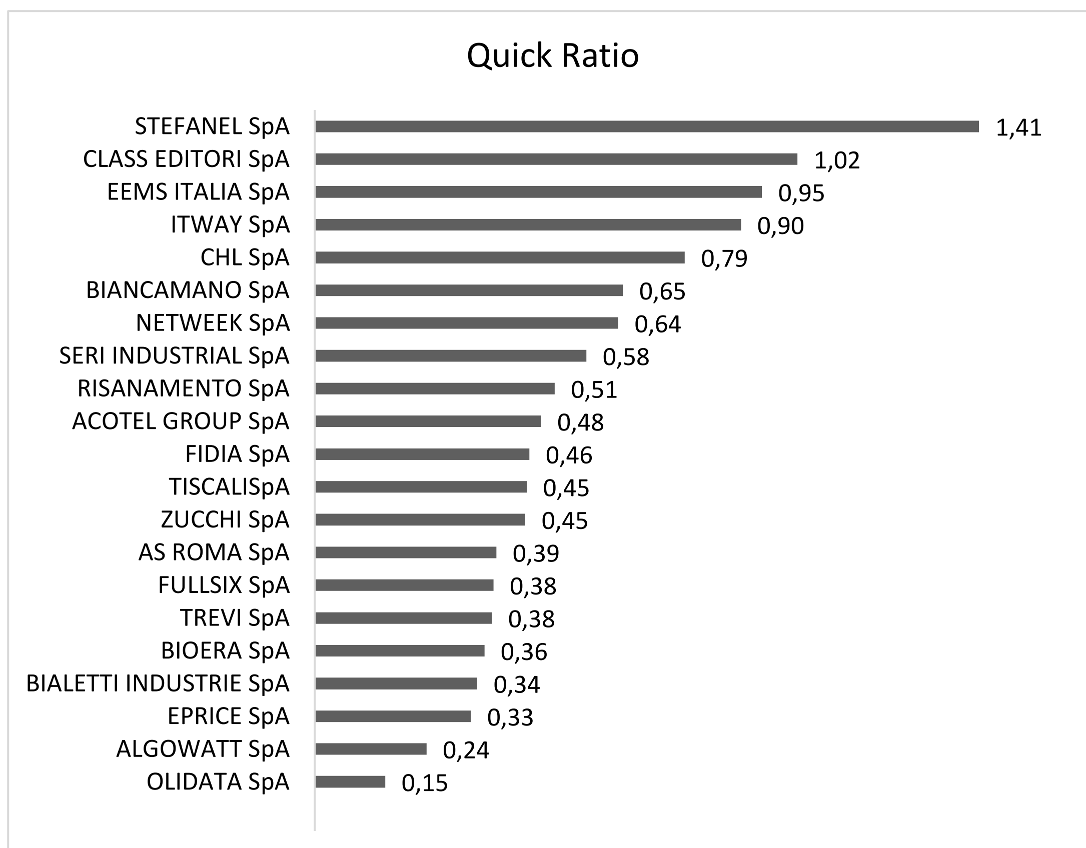


Figure 3.10 – Black list: quick ratio. *(Personal elaboration from AIDA database)*

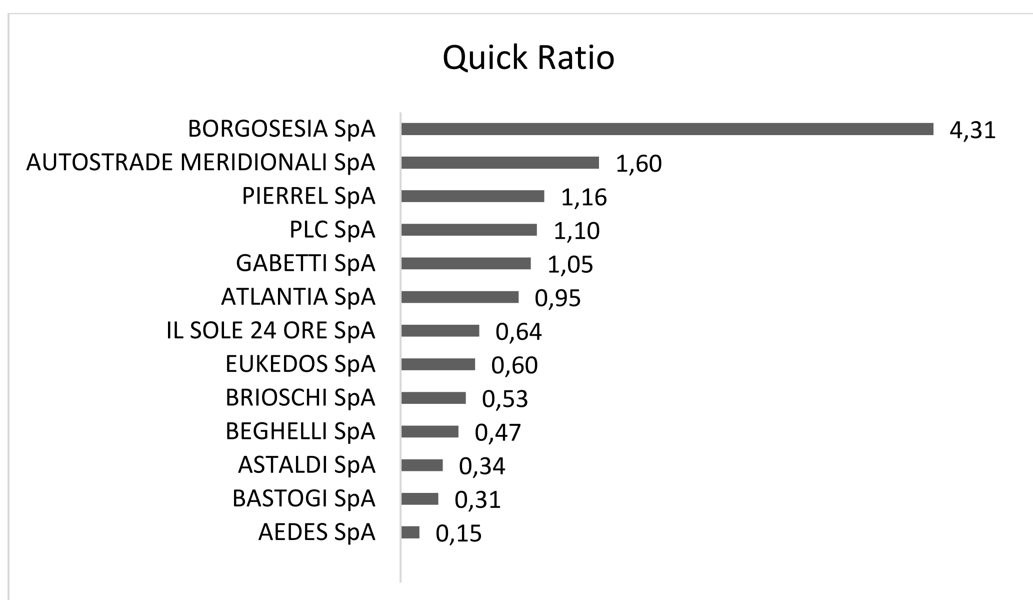


Figure 3.11 – Grey list: quick ratio. *(Personal elaboration from AIDA database)*

Into specifics, a value of the quick ratio lower than 0.8 will be considered as the critical threshold.

As regards the black list, 17 out of 21 companies have a quick ratio lower than the threshold value, thus performing an average value of 0.56 and, therefore, demonstrating a general criticality and concern in terms of solvency. The grey list, on the other hand, performs better and shows a greater ability to cope with short-term payments. In fact, the sample has an average quick ratio of 1.02 (0.74 excluding the specific case of Borgosesia S.p.A.), with 7 companies out of 13 characterized by a value lower than 0.8.

Most of the companies currently involved in the suveillance lists, as can be seen from *Table 3.1* and *3.2*, have been subject to CONSOB supervision for at least 3 years. Thus, the prolongation of financial distress has made it necessary to implement more or less invasive resolutive measures. As discussed in *Chapter II*, if out-of-court turnaroud strategies are not sufficient to recover from the downward spiral of the crisis, the legislator provides for restructuring processes which can occur under the protection of the legal instruments offered by the Bankruptcy Law. As *Tables 3.3* and *3.4* show, most of the companies have adopted measures requiring an absent or limited intervention of the court, i.e. certificate plans (*ex art. 67, l.f.*) and debt restructuring agreements (*ex art. 182, l.f.*).

Black List Companies	Insolvency proceeding
ACOTEL GROUP S.p.A.	Out-of-court restructuring
ALGOWATT S.p.A.	Certificate plan ex art. 67
A. S. ROMA S.p.A.	Out-of-court restructuring
BIALETTI INDUSTRIE S.p.A.	Debt restructuring agreement ex art. 182
BIANCAMANO S.p.A.	Debt restructuring agreement ex art. 182
BIOERA S.p.A.	Out-of-court restructuring
CHL S.p.A.	Bankruptcy request from the court
CLASS EDITORI S.p.A.	Out-of-court restructuring
EEMS ITALIA S.p.A.	Debt restructuring agreement ex art. 182
EPRICE S.p.A.	Out-of-court restructuring
FIDIA S.p.A.	Admission to composition with creditors ex art. 160
FULLSIX S.p.A.	Out-of-court restructuring
ITWAY S.p.A.	Out-of-court restructuring
NETWEEK S.p.A.	Composition with creditors ex art. 160
OLIDATA S.p.A.	Revocation of liquidation sentence
RISANAMENTO S.p.A.	Out-of-court restructuring
SERI INDUSTRIAL S.p.A.	Out-of-court restructuring
STEFANEL S.p.A.	Extraordinary administration
TISCALI S.p.A.	Debt restructuring agreement ex art. 182
TREVI S.p.A.	Debt restructuring agreement ex art. 182
ZUCCHI S.p.A.	Debt restructuring agreement ex art. 182

Table 3.3 – Black list: Insolvency proceedings adopted. *(Personal elaboration based from Annual Financial Statements and CONSOB)*

Black List Companies	Insolvency proceeding
AEDES S.p.A.	Debt restructuring agreement ex art. 182
ASTALDI S.p.A.	Composition with creditors ex art. 160
ATLANTIA S.p.A.	Out-of-court restructuring
AUTOSTRADE MERIDIONALI S.p.A.	Out-of-court restructuring
BASTOGI S.p.A.	Out-of-court restructuring
BEGHELLI S.p.A.	Certificate plan ex art. 67
BORGOSESIA S.p.A.	Debt restructuring agreement ex art. 182
BRIOSCHI SVILUPPO IMMOBILIARE S.p.A.	Certificate plan ex art. 67
EUKEDOS S.p.A.	Composition with creditors ex art. 160
GABETTI PROPERTY SOLUTIONS S.p.A.	Debt restructuring agreement ex art. 182
IL SOLE 24 ORE S.p.A.	Out-of-court restructuring
PIERREL S.p.A.	Out-of-court restructuring
PLC S.p.A.	Debt restructuring agreement ex art. 182

Table 3.4 – Grey list: Insolvency proceedings adopted. *(Personal elaboration based on Annual Financial Statements and CONSOB)*

Few companies have, instead, adopted more invasive strategies: Fidia S.p.A., Netweek S.p.A., Astaldi S.p.A. and Eukedos S.p.A. have implemented a composition with creditors (*ex art. 160, l.f.*), Stefanel S.p.A. is currently facing an extraordinary administration while for CHL S.p.A. the court has filed for bankruptcy.

Indeed, what can be observed is that companies subject to prolonged surveillance have gone beyond the certificate plan (*ex art. 67, l.f.*) and have primarily intervened on their debt structures. Actually, among the most common contents of the financial plan emerge: commitment to equity injections, rescheduling of existing long-term debt, request for new financing and redetermination of covenants.

3.4. Empirical analysis: rationale and methodology

The analysis conducted in the previous paragraph concerning all the companies that have been part of the black and grey lists of CONSOB from 2009 to today is considered preparatory to the empirical analysis that will be performed in *Chapter IV*. In fact, it has given way to identify the fundamental characteristics of the firms currently under observation, especially in terms of resolutive measures undertaken, and to point out the companies that left the lists following the resolution of the crisis.

Therefore, the objective of this dissertation is to analyze the causes that led to the outbreak of the corporate crisis and the related measures implemented in three different business conditions. In fact, it was deemed necessary and interesting to compare three companies, namely one of the black list, one of the grey list and one currently recovered and out of surveillance, with the aim of investigating what unites and what distinguishes the turnaround measures adopted by the two companies in the "watch lists" with respect to the company out of the crisis.
In order to fulfill this research question, the selection has fallen on companies belonging to the manufacturing sector with a long history of surveillance by the CONSOB in order to be able to grasp the impact of the resolutive strategies adopted over a time horizon of 5 years, from 2015 to 2019. The choice of the time period allows to neutralize the direct impact of the global crisis of 2008 and the current crisis condition due to the spread of the covid-19 pandemic, which had an important impact on most of the production sectors in 2020.

Zucchi S.p.A., a company under observation since June 2010, has been selected for the black list. Beghelli S.p.A. has been considered representative of the grey list because of its inclusion in it since February 2015. Instead, among recovered companies, it is interesting to observe the

Pininfarina S.p.A. case: a company under surveillance in the grey list (since July 2009) and recently considered no longer of concern by CONSOB.

The data on which the analysis is based are obtained from the AIDA database published by Bureau Van Djik and are also integrated by the periodical information issued to the market and by the annual financial statements of the companies. Furthermore, annual financial statements have been reclassified in such a way to highlight the relevant margins and measures to better investigate the company's performance and financial position, as will be seen in the *Appendix*. Furthermore, each company has been compared with a comparable firm belonging to the same sector in order to better appreciate the results.

Each company will be presented in the paragraphs below in relation to its scope of business, group structure and history.

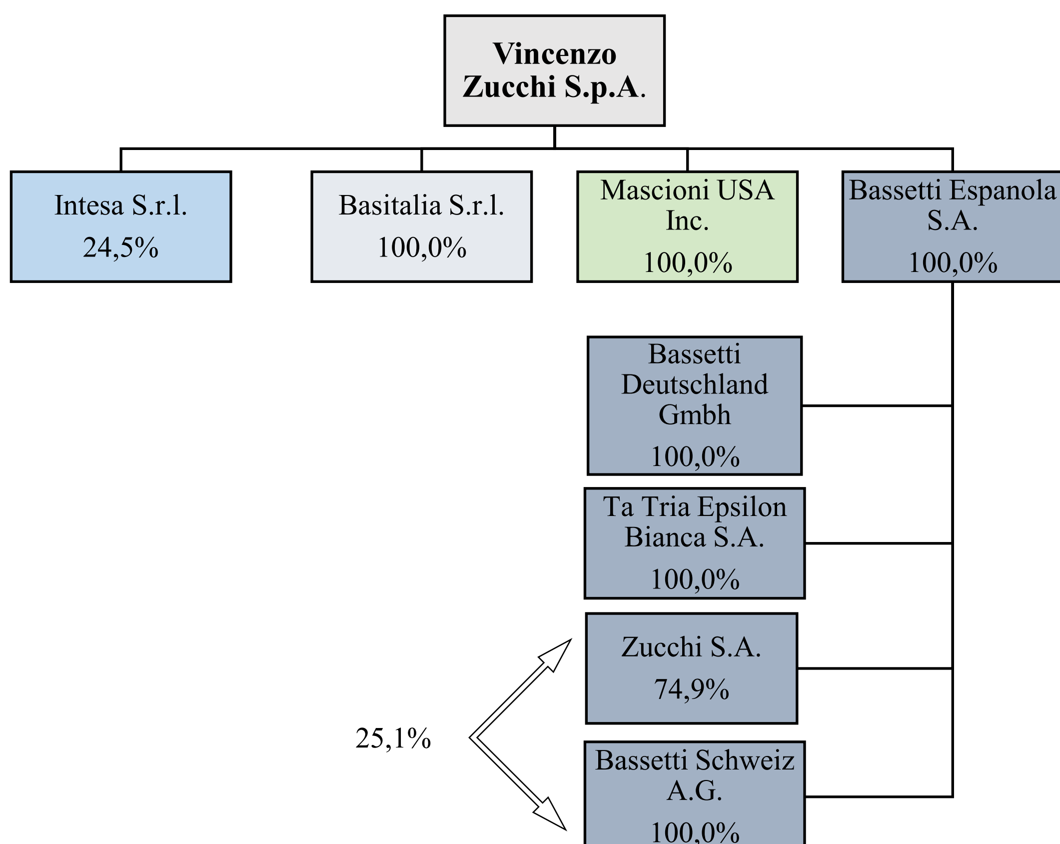
3.4.1 Zucchi: structure and history

Zucchi is the largest Italian group of home textiles and an international reference in the production and distribution of linen. The business units of the Group constitute an organic complex of manufacturing, creative and distributive structures, operating both at the level of finished and semi-finished products and finishing processes for third parties.

The range of products offered by the Group includes:

- Bedroom products: such as sheets, pillowcases, duvets, bedspreads
- Livingroom products: such as curtains, carpets, sofa covers, table services, kitchen items
- Bathroom products: such as towels, bathrobes, bathmats
- Semi-finished products: cotton yarns and raw fabrics
- Dyeing and print work services on behalf of third parties

Furthermore, the corporate structure of the Zucchi Group on the 31st December 2019 is presented in *Figure 3.12.*



	Business unit Zucchi and subsidiaries
	Business unit hospitality
	Other services
	Related company

Figure 3.12 – The structure of Zucchi Group. *(Consolidated non-financial report 2019)*

Among its strengths, the Group boats the strong competitive positioning of the two owned-brands, namely Zucchi and Bassetti, which guarantee a substantial share of the Italian household linen market and an international presence. In fact, the former is positioned on the premium segment, while the latter serves the medium-high segment, thus characterizing the first business unit of the Group, which is also licensee of some highly appealing brands. Moreover, in recent years, this market positioning has allowed Zucchi to satisfy a wide clientele through a varied range of products, also completed in terms of style and quality with products dedicated to high-end hotels, managed by the hospitality business unit.

The current structure is the result of a strong revision process of the entire Group's organization started in 2016. In particular, the path includes a new commercial proposition ("power of one"),

to be realized through the rationalization of the offer, the repositioning of the brands with a view to greater complementarity and the conversion of the point of sale into a double-brand (Zucchi and Bassetti). In this respect, the supply chain management represents a key aspect for the Group's business activities, even more so following the restructuring in progress and the industrial plan currently being implemented, as will be seen in *Chapter IV*. The Zucchi Group avails of a complete outsourced production through which it has the opportunity to build long-term collaborative relationships and partnerships with its suppliers, but with a constant supervision in order to guarantee a good level of quality and service. In detail, it should be noted that the suppliers of raw materials are located for the most part in Asia (73%), as are the suppliers of finished goods (70%), while the suppliers of third-party processing are mainly located in Italy (88%). Currently, the Group is present in 20 countries making use of a capillary distribution network characterized by three types of channels. First of all, Zucchi manages the direct channel represented by the stores located in large cities and in the so-called premium locations. The indirect channel, instead, oversees the peripheral areas with stores managed by independent and franchise partners. In 2019, the commercial network comprises 214 stores: 71 to oversee the direct channel and 143 for the indirect. As a whole, they were divided as follows: 71 in Italy, 64 in Germany, 60 in Switzerland and 19 in Spain.

Taking a step back, the story of the Zucchi Group begins in 1920, when Vincenzo Zucchi and his business partner founded their first textile business thanks to the acquisition of the Casorezzo facility. A few years later, in 1953, the company Vincenzo Zucchi S.p.A. was established. Then, 60s and 70s were characterized by an expansion process in terms of acquisitions and mergers, aiming at the vertical integration of Zucchi and, among the acquired companies, there emerge B.C.A. F.lli Tosi and Manspugna, both specialized in the sponge industry. In 1982, Vincenzo Zucchi S.p.A. was listed in the Milan Stock Exchange. Moreover, the expansion process did not stop and culminated in the acquisition of Bassetti in 1986, direct competitor of Zucchi on the household linen industry, through which the company acquired the indirect control of Mascioni S.p.A. ad Bera SA in 1988 and of Jalla SAS and Descamps SAS.

The 2000s, on the other hand, were characterized by the first signals of decline, mainly following the acquisition processes from which the company was not able to retrieve synergies and, therefore, properly integrate with target companies. Furthermore, the lack of flexibility of the business structure and the growing competition of the markets in which it was operating made the crisis manifest. As a consequence, from 2005, the Group initiated a process of industrial and corporate rationalization and restructuring, aimed at the streamlining of the corporate structure and at the regaining of its competitive foothold. In this context, numerous

turnaround measures took place, such as production plans closure, workforce reduction, the incorporation of Bassetti and Standartela in the parent company Vincenzo Zucchi S.p.A. in 2006 and the sale of 80% of the share capital of Descamps SAS in 2011, ad part of its restructuring procedure. Despite this, in 2008, the financial crisis hit heavily the household products industry, exacerbating the distress condition of the Group and necessitating its entry into the black list of CONSOB in June 2010. This made it necessary the implementation of several strategic plans, which culminated, in more recent years, in a debt restructuring agreement signed in 2015 on the basis of the industrial plan 2015-2020, as will be seen in more detail in *Chapter IV*.

3.4.2 Beghelli: structure and history

Beghelli is an Italian company, as well as the country's leader in the emergency lighting sector. It designs, manufactures and distributes appliances for professional-technical lighting, also creating electronic systems for home automation, industrial and home security.

The current areas of activity can be divided into the following two sectors:

- Lighting: it includes products relating to emergency lighting and ordinary lighting. The former, divided into industrial and domestic, includes devices that allow lighting in the event of a power failure. The latter, on the other hand, includes lighting devices and light sources (bulbs) intended for industrial, tertiary and domestic applications, with technological solutions also aimed at the achievement of high energy savings and equipped with measurement and remote-control systems;
- Other activities: this segment encompasses consumer electronic devices, such as cells and batteries, household products, products with plug power, as well as electronic systems designed to satisfy the general need for safety, both in the domestic and industrial sectors, with the supply of remote assistance providers, generic anti-intrusion and security devices.

The corporate structure of the Beghelli Group at 31 December 2019 is presented in Figure *3.13*.

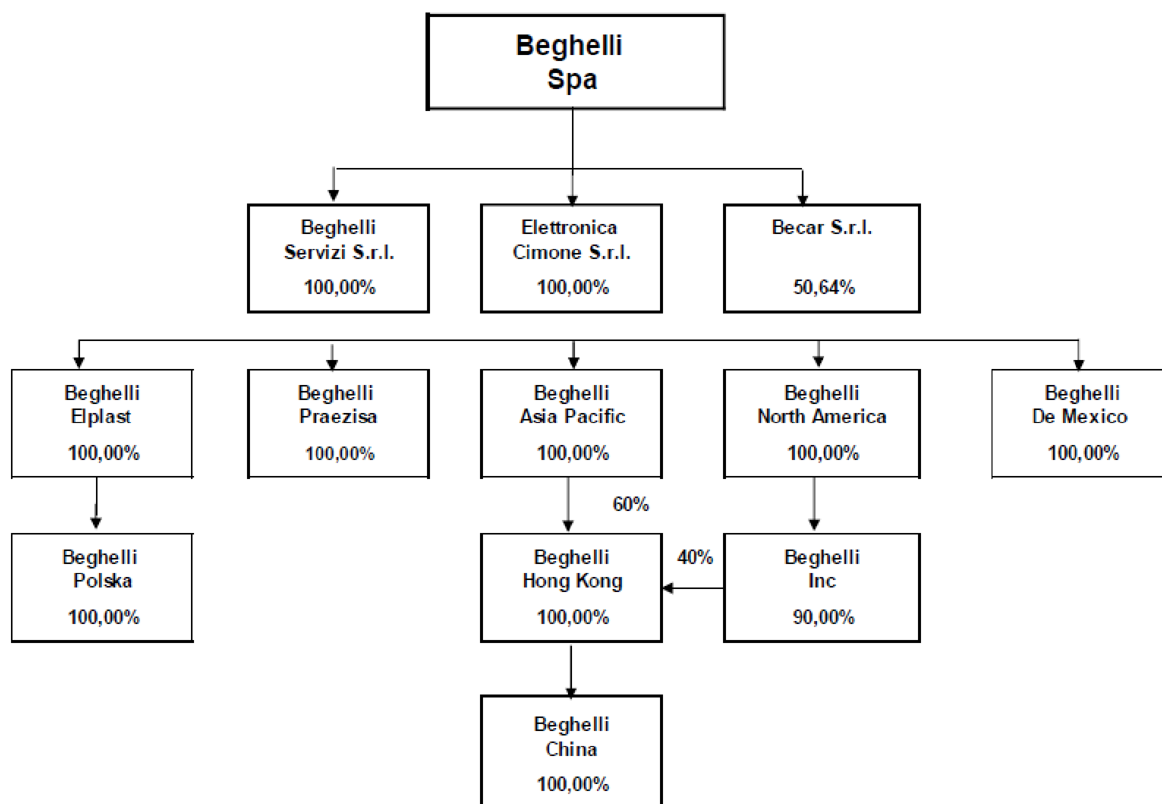


Figure 3.13 – The structure of Beghelli Group. *(Consolidated non-financial report 2019)*

Beghelli's business model is divided into a plurality of phases and functions which include the research and development, planning and purchasing, logistical coordination of goods production, as well as quality control of each phase, marketing, distribution and sale of components and services matched to the products. Specifically, the R&D activity is considered key in the process of market demand analysis, allowing the Group to acquire a certain know-how and a significant competitive advantage in the lighting market. This, together with the activities relating to the definition of strategies and industrial, commercial and financial coordination, are the responsibility of the parent company Beghelli S.p.A.

Indeed, the manufacturing activity is mainly carried out by companies belonging to the Group based in the Czech Republic, Germany and China, reserving however the production of components and products with high added value to the Italian factories.

The Group is also active in the field of industrial and domestic safety and energy saving services through its own company Beghelli Servizi S.r.l. It offers complementary services to the sale of products and, in particular, the replacement or new installation of lighting devices.

Finally, the finished products are sold to wholesalers of electrical equipment, appliance stores, large-scale distribution, large contractors and other sales channels, through the Group's companies located in Europe and abroad.

The history of Beghelli began in 1982 following the construction of the first fixed-installation emergency lamp that gave way to the company operating in the production of lighting equipment. In the following years, the company was able to expand its business, from emergency lighting up to electronic systems for home and industrial security, thanks to huge investments and R&D activities. Then, in 1988, Beghelli S.p.A. was listed on the Italian stock exchange. Together with the introduction of new products, between 1999 and 2000, the company also began the expansion abroad. Among the activities undertaken, it emerges the acquisition of Elplast in the Czech Republic, specialized in the production of metal ceiling lights, the acquisition of the Canadian Luxnet (which will later become Beghelli Canada) manufacturer of lighting and emergency luminaires, and that of German Praezisa, manufacturer of centralized emergency systems and second operator on the German emergency lighting market. Furthermore, the Beghelli Group have also established few branches abroad, from the United States to China.

Short before the crisis of 2009, the Group launched a service for the municipalities that included the installation of the new generation of lighting systems at zero cost, to be paid with the energy savings obtained over a period of 7-8 years. As a result of the crisis, the banks decided to froze credits and the Beghelli Group found itself with a high level of indebtedness and a negative net financial position. Then, the worsening of the company's financial condition led to the inclusion of the Group into the black list of CONSOB in 2013. In the same year, the Group embarked on a recovery plan (*ex art. 67, l.f.*) to obtain the rescheduling of the exposures to banks. The turnaround activity has involved the downsizing of the production in China and Czech Republic and the internalization of part of the productions back in Italy. The plan, which became effective in 2014, reported good results in the following two years, guaranteeing to the Group the shift into the grey list of CONSOB in February 2015. Thanks to the positive management trend, in December 2016 the Beghelli Group has requested the early termination of the agreement with banks, while still remaining undern CONSOB's observation.

3.4.3 Pininfarina: structure and history

Pininfarina is an Italian leading player in the automobile sector. Indeed, the company acts as an international partner, offering a complete contribution to the development of a new product through the design, planning, industrialization and construction phases of small series, providing these different capacities also separately and with great flexibility. Pininfarina's business is moved by values of elegance, purity and innovation, leveraging on the luxury of the made in Italy.
Its core business is design and engineering services, where the company can boat on its strong brand name and its indisputable reputation as a car designer, its excellent technical know-how, also in specific segments of the industrial engineering services value chain.

The corporate structure of Pininfarina at 31 December 2019 is presented in *Figure 3.14*.

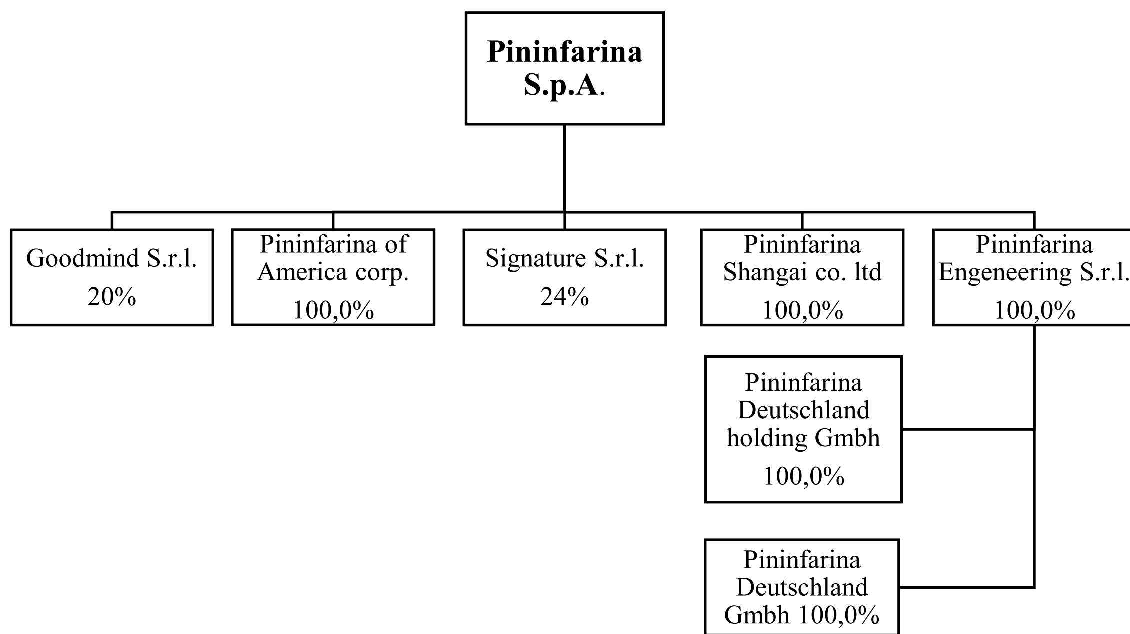


Figure 3.14 – The structure of Pininfarina Group. *(Consolidated non-financial report 2019)*

In order to better focus on the two souls of its business, with effect from 1st January 2019, the Group has changed its structure. Thus, Pininfarina Extra merged by incorporation into the parent company Pininfarina, allowing the confluence of industrial design, transformation design, architecture and interior design into a single company. At the same time, the Group decided to set up Pininfarina Engineering S.r.l., with the aim of guaranteeing the highest standards in the development of engineering solutions for its customers. This reorganization

strategy favors the shortening of the design control chain and the centralization of commercial strategies, allowing the Group to focus its efforts more effectively.
The Group is located in Italy, Germany, China and the United States, selling mainly to Italy and Germany, with a growth strategy also in China and the United States. From Germany, the subsidiary controls and coordinates its German customers and provides the first point of contact for all core areas from the development competence at system level to small series manufacturing in Italy.
Moreover, in 2006 it has established Pininfarina of America subsidiary, working within the US, Canada and Latin America markets. The company's design scope includes transportation design (yacht and aircraft), industrial design (equipment and machinery, furnishings, consumer goods), architecture and interior design (residential projects, hospitality, sports and commercial structures). Furthermore, the establishment of Pininfarina Shangai Co. Ltd. in 2010 allows to benefit from the steady growth of the Chinese automotive market through the development of partnerships with local car manufacturers.

The history of Pininfarina begins in 1930 when Battista Farina founded Carrozzeria Pinin Farina as a joint-stock company. Since then, the concept of the company and its attention to the elegance of the made in Italy was clear. Actually, in 1946 the Cisitalia was the first car to be included in the permanent collection of a modern art museum, the MoMa in New York. Thanks to the publicity received, the following years were characterized by high industrial growth and by the cooperation with Nash Motors, which resulted in high-volume production of Pininfarina designs and, accordingly, to the major entry into the US market.
In the 1950s, the historic collaboration with the Ferrari Group also began, with the creation of more than 100 iconic models to date, guaranteeing the exploitation and acquisition of ever greater know-how and synergies. In the 1960s, the Group moved towards large-scale manufacturing thanks to the opening of new facilities and investments in the science of automotive design aimed at the modernization and differentiation of the company from the other Italian coachbuilders. In the 1980s and 1990s, the Pininfarina Group expanded abroad with the incorporation of Pininfarina Deutschland to best serve the German automotive sector. In 1986, furthermore, the Group has been listed on the Italian stock exchange.

The Pininfarina Group's good results were halted few years before the 2008 global crisis because of the significant debt level of the company, aggravated by the crisis of the automobile sector which led to a sharp reduction in production volumes by all major manufactures. As a consequence, the CONSOB deemed it necessary to surveil the Group under the grey list since July 2009. Financial difficulties continued until the debt restructuring agreement of 2015 and

the following entrance into the Mahindra Group. Indeed, the latter, owner of the Indian automobile company Mahindra&Mahindra, agreed to acquire 76% stake in the Pininfarina Group from the holding company Pincar. Subsequently, the Pininfarina Group has been able to recover from the long period of crisis, also boosted by the new Group's strong international identity, successfully exiting the CONSOB's grey list in 2019.

CHAPTER 4: EMPIRICAL ANALYSIS

4.1. Introduction

After having explored the definition of companies in distress and the turnaround measures generally implemented to overcome the crisis, in this chapter we will get to the heart of the empirical analysis. Into specifics, it will deal with three different case studies, each of them attributable to different business conditions: Zucchi, currently under the black list, Beghelli, belonging to the grey list, and Pininfarina, which managed to exit from CONSOB's "watch lists" in 2019. Therefore, the objective of this dissertation is to analyze the causes that led to the outbreak of the corporate crisis, with specific attention to the restructuring measures implemented, and assess if each company has managed to improve its performance in terms of profitability, indebtedness level and financial solidity. To do so, the investigation will cover a 5-year period from 2015 to 2019 in order to catch the company's evolution under the main performance metrics. Furthermore, each case study will be accompanied by the comparison with a peer company belonging to the sector of the firm under investigation, with the aim of conducting a comparison in relation to specific measures of value. Indeed, current performance developments, namely of 2020, will be discussed in order to capture the evolution of the company under a distressed market condition, consequence of the covid-19 pandemic outbreak. Ultimately, each case study will be followed by considerations on its trend and the effectiveness of turnaround measures implemented.

4.2. Zucchi

Zucchi, which has been on the black list since 2010, will be the first company to be analyzed over the selected time horizon, i.e. 2015-2019. Into specifics, the analysis of its income performance and its capital structure will refer to the reclassified financial statements reported in *Appendix 2*. Moreover, to make the data more understandable, it was considered appropriate to compare specific measures of value with those of a peer company operating in the same reference market, namely the Italian household linen sector. To this regard, the choice fell on Caleffi due to the specific characteristics of the company. Despite its minor state of affairs, Caleffi operates in the same markets of Zucchi and makes use of analogous distribution

channels. Furthermore, compared to other peer companies, it has been affected to a lesser extent by the crisis that hit Zucchi in the early 2000s.
Briefly, Caleffi has a large and balanced portfolio of its own and licensed brands, such as Disney, Roberto Cavalli Home Collection, Trussardi Home Linen, Diesel Home Linen and Marvel. Moreover, thanks to an extensive distribution network, both in the retail and wholesale business, it is widely present in Italy and abroad.

4.2.1. Causes of distress and financial manoeuvre

Decline

The crisis of Zucchi established its roots at the beginning of the new decade following the company's expansion process implemented over the years, as seen in *Paragraph 3.4.1*. In fact, among the underlying causes of distress is the inability of the Group to effectively integrate and realize the full synergies' value from the acquired companies and to adapt their production structures to the household linen market specificities and, in particular, to the need and characteristics of the existing business. As a consequence, the company found itself operating as a market leader in Italy but with a very rigid corporate structure which, over the years, has proved unsuitable for the changes occurred in the external competitive environment. Indeed, at the beginning of 2000s, the subjects operating in Zucchi's competitive context of reference had undertaken a process of outsourcing with the aim of resorting to labor at a lower wage, thus reducing production costs and increasing margins. On the other hand, Zucchi made use of production facilities located mainly in Italy and France, consequently losing competitiveness. When, following the early 2000s, Zucchi recorded its first negative net income in 2004 (- €17 million), a business turnaround intervention became more than necessary in order to avoid the downward spiral of the crisis. In fact, from the first signs of decline, the company has undertaken a business transformation process aimed at recovering a competitive position in the reference market and streamlining its cost structure. In this context, disposals of non-strategic assets and the outsourcing of process phases were undertaken with the aim of reducing operating costs, to be followed then by the development of an international image of the brand. At first glance, the company reorganization measures slowed down the negative trend of the Group, but this was not enough in the face of the serious global crisis that hit the markets in 2008, also bringing the Italian household linen sector to its knees and, in turn, aggravating the fragile condition of Zucchi.

Zucchi's difficulties were consequently reflected in the performance of its share price on the Italian stock exchange, leading to significant fluctuations in the period between the early 2000s and the outbreak of the global crisis. As it can be noticed from *Figure 4.1*, the share price declined from a mean value of €155 per share (2000) to a minimum of €89 in 2003, year of manifestation of the first important reductions in terms of revenues and operating margins. The company's condition further worsened in 2005 and 2006, leading to strongly reduced contribution margins, with revenues almost equal to operating costs. As a consequence, the market proved to be cautious and uncertain about the Group's performance, as reflected in the minimum price per share of €76 in 2006. Again, as mentioned above, the situation worsened with the advent of the economic crisis.

Figure 4.1 – Zucchi: price per share (2000-2008). *(Morningstar)*

Crisis

Zucchi's industrial transformation undertaken in the last years of the first decade of the 21st century was not enough to stop the negative trend performance of the company and the impact of the crisis. In fact, the clear worsening of the firm's condition and the financial difficulties in meeting its obligations, led to CONSOB's intervention and the consequent Zucchi's inclusion under the black list in 2010.

The following years were characterized by turnaround efforts and objectives supported by various strategic and restructuring plans and, more specifically, by three different debt restructuring agreements pursuant to art. 182-bis (*l.f.*). In particular, the first two agreements, of 2011 and 2013, did not lead to the results called for by the respective business plans.

Into specifics, the 2011 debt restructuring agreement provided for the share capital increase, the consolidation and the rescheduling of the long-term debt (€44.3 million), the renewal of short-term credit lines and the revision of interest rates. The agreement was based on a business plan concerning the period 2011-2015 and providing for the company's cost structure redefinition, the brand repositioning and internationalization, and the focusing on wholesale channels.

Despite the actions undertaken, the group failed to fulfill the forecasted results, thus, requiring the implementation of the renewal of the debt restructuring agreement in 2013, on the basis of the 2013-2017 strategic plan.

However, once again, Zucchi was not able to achieve performance improvements and it required a new deal with banks aimed at preserving the business continuity, thus signing the third debt restructuring agreement in 2015. The preparation of the new financial manoeuvre is supported by business and financial initiatives that have found expression in a new business plan for the period 2015-2020, aimed at relaunching the company in the domestic and international environment. As we will see in the following paragraphs, the company's restructuring attempt will lead to the results hoped for by the Group and, above all, to the early resolution of the agreement in October 2020, thanks to a refinancing operation.

Again, the market kept on with its declining path in relation to Zucchi's share price (*Figure 4.2*). In particular, investors showed great uncertainty in 2011 because of the first debt restructuring agreement implementation. In this period, the price reached two peaks of €44.8 and €42, respectively in May 2011 and November 2011, but then assessed on a slightly downward trend in the subsequent years.

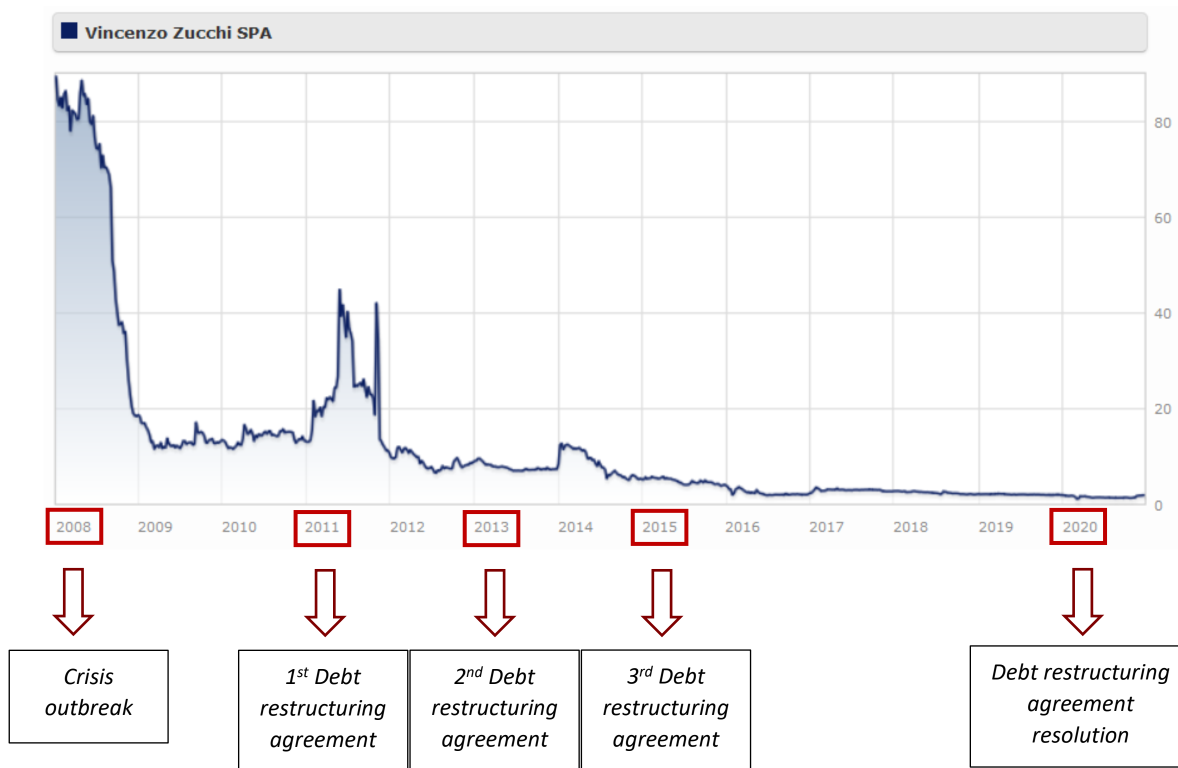


Figure 4.2 – Zucchi: price per share (2008-2020). *(Morningstar)*

For the sake of this dissertation, the focus will be on the last business plan (2015-2020) on which the respective debt restructuring agreement (2015) is based.

Into specific, among the strategic measures implemented, the common denominator is represented by the objective of <u>increase in the efficiency of the Group's cost structure</u> and <u>profitability recover</u>. Indeed, the business plan envisages the rationalization of the offer, the repositioning of the brands with a view to greater complementarity (in a "power of one" logic) and the conversion of the points of sale into the two brands Zucchi and Bassetti, to be articulated in two successive phases:

- <u>The turnaround phase (2015-2017)</u> entails the simplification of the offer, the rationalization of the points of sale supported by initiatives aimed at the stable reduction of costs, as well as the closure of the Brazilian branch;
- <u>The development phase (2017-2020)</u>, then, should be achieved through the implementation of activities targeted at the strengthening of the complementarity among the Group's brands (eliminating, therefore, possible overlaps) and Zucchi repositioning among the companies operating in the high end of the reference sector, leveraging on the foreign markets' growth and on the strengthening of the e-commerce channel.

These turnaround actions have been integrated with a financial manoeuvre endorsed in the debt restructuring agreement signed in December 2015 (*ex art. 182-bis, l.f.*) which has been negotiated with banks and supported by the French private equity fund Astrance Capital SAS. In fact, the agreement has involved, other than Astrance, a pool of creditor banks made up of Unicredit, Intesa Sanpaolo, Banca Popolare di Milano, Banca Popolare di Bergamo, as well as Banca Nazionale del Lavoro, GB Holding and Gianluigi Buffon. Therefore, the financial manoeuvre has the objective of easing the debt obligation constraints of the Group while improving its profitability performance, through the enforcement of the following measures:

- The establishment of a special purpose vehicle (SPV) to which the company will transfer the business branch constituted by €30 million of the Group's debt (transferred debt), the properties located in Isca Pantanelle, Notaresco, Casorezzo, Vimercate and Rescaldina and the relations with five employees. Alternatively, the Group may decide to transfer these properties to a real estate investment fund, together with any obligation related to the transferred debt. Then, as part of the operation, the SPV will enter into a rental contract with the Group for the property located in Rescaldina, against which the company will pay an annual rent of €1 million;
- An earn-out real estate provision thanks to which the SPV will grant the pool of banks an amount equal to 75% of the net proceeds arising from the properties' sale and exceeding the transferred debt;
- A debt waiver in favor of Zucchi Group of the transferred debt portion than has not been repaid though asset disposals;
- A debt waiver in favor of the Group corresponding to the residual debt amounting to €49.6 million, namely the difference between the overall exposure toward the pool of banks and the transferred debt. Furthermore, the banks will be paid an earn-out calculated on the basis of the internal rate of return earned by Astrance on its €10 million investment;
- The granting or confirmation by banks of self-liquidating credit lines amounting to a maximum of €17.538.000 subject to the stipulation by the company of insurance policies to guarantee the validity and collectability of its trade receivables;
- A capital increase in Zucchi equal to €10 million reserved to GB Holding (at the time the majority shareholder with a stake equal to 33.7%) and transferred to the newly established Newco, with the simultaneous commitment by Astrance to provide a cash investment of the same amount in GBH or in Newco.

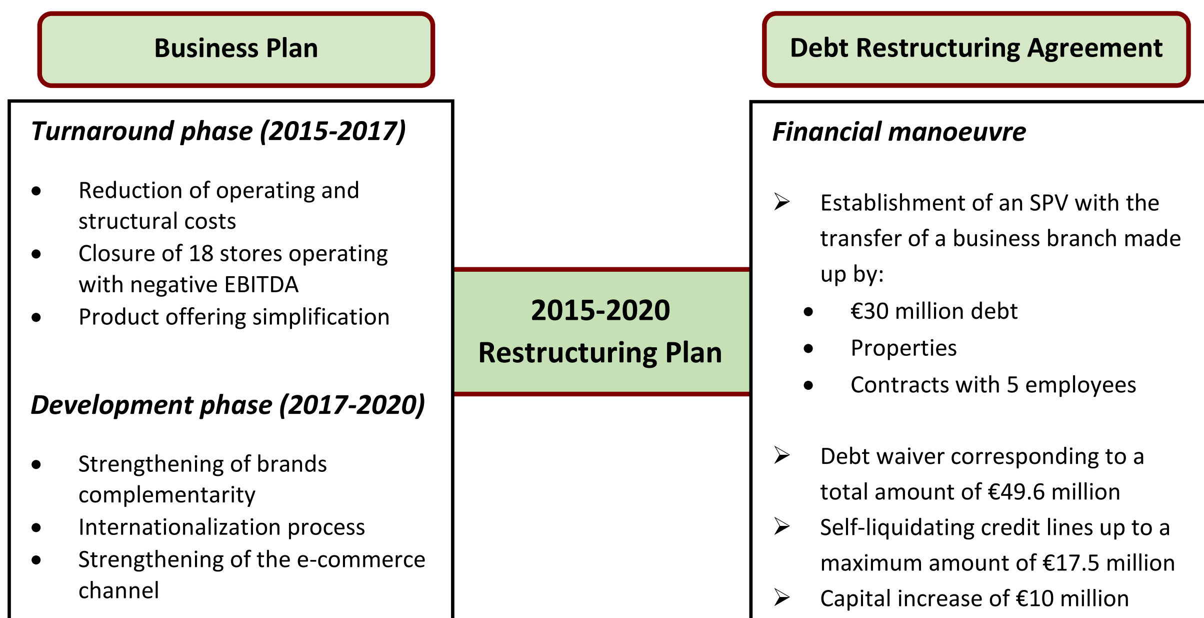


Figure 4.3 – Zucchi: main provisions of the restructuring plan (2015-2020). *(Personal elaboration from Zucchi website)*

Taking into account the overview of the initiatives undertaken for the period 2015-2020 (*Figure 4.3*), it will be possible to investigate in the following paragraphs the actual results obtained by the Group for the considered period of analysis and possibly see the effects of the debt restructuring agreement in place. The analysis will retrace the performance of the company in the period 2015-2019[21], also in relation to the movements of its invested capital and financial structure, only to draw conclusions in relation to Zucchi's ability to meet the provisions called for by the 2015-2020 business plan.

[21] 2019 is referred to the year of the last publicly available annual financial statements. In addition, the choice of the analysis period excludes the further negative impacts which the advent of the covid-19 pandemic had on markets in 2020.

4.2.2. Sales trend and operating profitability

In the analysis period 2015-2019, the amount of total revenues of Zucchi shows a slightly fluctuating trend with the highest volume recorded in 2015, as is evident from *Figure 4.4*. In fact, compared to previous years, total sales have never exceeded the value of €100 million for reasons linked not only to the household linen market trends but also to the strategic measures undertaken. Indeed, in the turnaround phase (2015-2017), the business plan has envisaged the reduction of costs also through stores closure operating with significant losses, specifically involving 18 retailers and, therefore, impacting on the volume of total revenues.

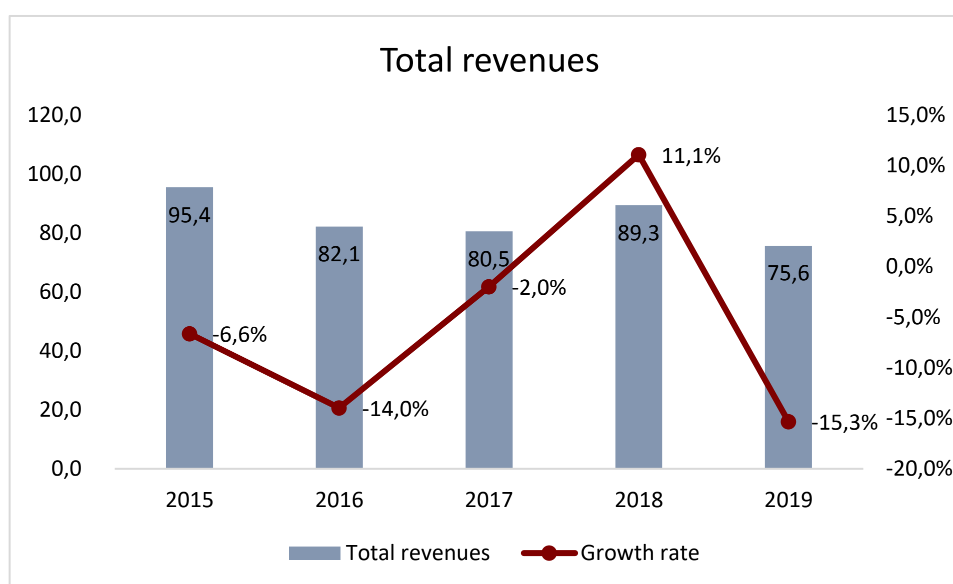


Figure 4.4 – Zucchi: total revenues (M€) and revenues growth rate. (*Personal elaboration from AIDA database and Annual Financial Statements*)

In 2015, Zucchi has accounted a reduction of -6.6% in total revenues compared to the previous year (€102.2 million) as a consequence of the negative economic situation that affected in particular the Italian market and for the state of difficulty under which the company operated following the admission to the bankruptcy procedure. Thus, this reduction has involved both the sales of the Group's companies operating in Italy and abroad.
The shrinking turnover also continued in the following two years for few specific reasons. First of all, the delays in production launches recorded in the last quarter of 2015, due to the ongoing restructuring, led to procurement problems which negatively influenced sales' volume in the first half of 2016. Secondly, 2015 has been characterized by a retail policy made up of high commercial discounts which have affected sell-out sales of both 2016 (-14.0%) and 2017 (-

2.0%). Furthermore, the reduction in the volume of business has been primarily recorded by the parent company due to the declining household linen sector and has involved the domestic reference market and some foreign markets. Nevertheless, both 2016 and 2017 have recorded an increase in European sales due to the higher turnover achieved by the Bassetti Deutschland subsidiary, as provided for by the business plan.
As shown in *Figure 4.4*, 2018 has presented a reversal in sales trend with a revenue growth rate of 11.1% (€89.3 million) compared to 2017 but, despite this, the total volume has returned to a value of €75.6 million in 2019. Indeed, the increase in sales in 2018 was due to an important order relative to the parent's company promotional channel in Italy, hence returning to a decrease in sales in 2019. Overall, the company achieved an increase in the total volumes of affairs in foreign markets, totally in line with its internationalization objective.

By analyzing revenues growth rates experienced by the comparable Caleffi, a slight volatility emerges also in the total sales of the latter in the 2015-2019 time period (*Figure 4.5*).

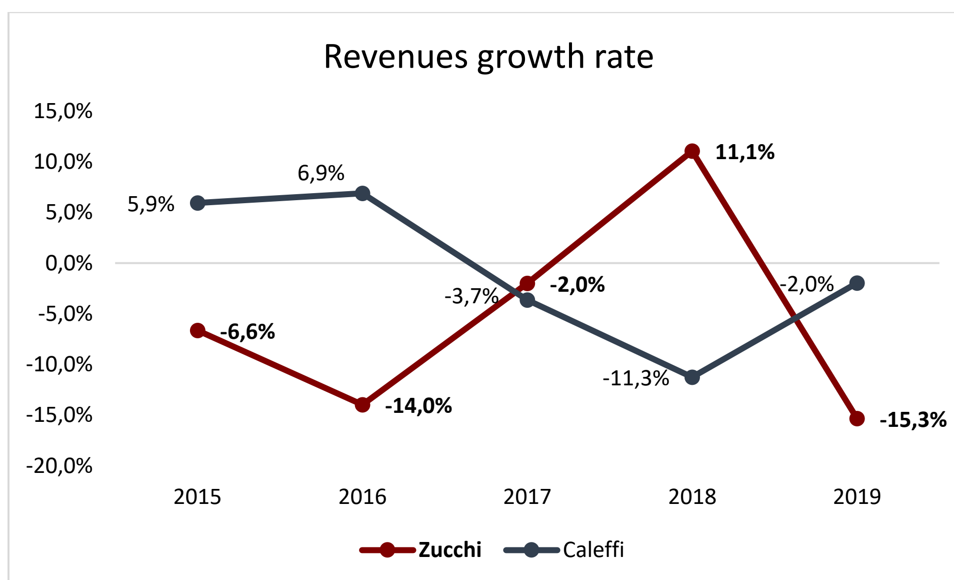


Figure 4.5 – Zucchi: total revenues growth rate comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

What appears interesting is the inverse trend performed by Caleffi with respect to Zucchi. In fact, the comparable firm presented increasing revenues in the two-year period 2015-2016, followed by an inverted path in the three following years. This dynamic is explained by the limited financial difficulties encountered by the competitor in the first two years of analysis followed, then, by the slowing course of the household linen market in later years. Actually, as explained above, the peak registered in 2018 by Zucchi is attributable to a specific event,

namely a relatively large order accounted by the Group. Apart from this, the comparison highlights the contractual impact that Zucchi's debt restructuring agreement had on sales.

As displayed in *Figure 4.6*, it is also interesting to examine the amount of total revenues per employee. In fact, the graph makes it possible to highlight a stable pattern in the Zucchi's ratio, but a general lower profitability compared to the competitor, despite the personnel reduction implemented during the turnaround phase.

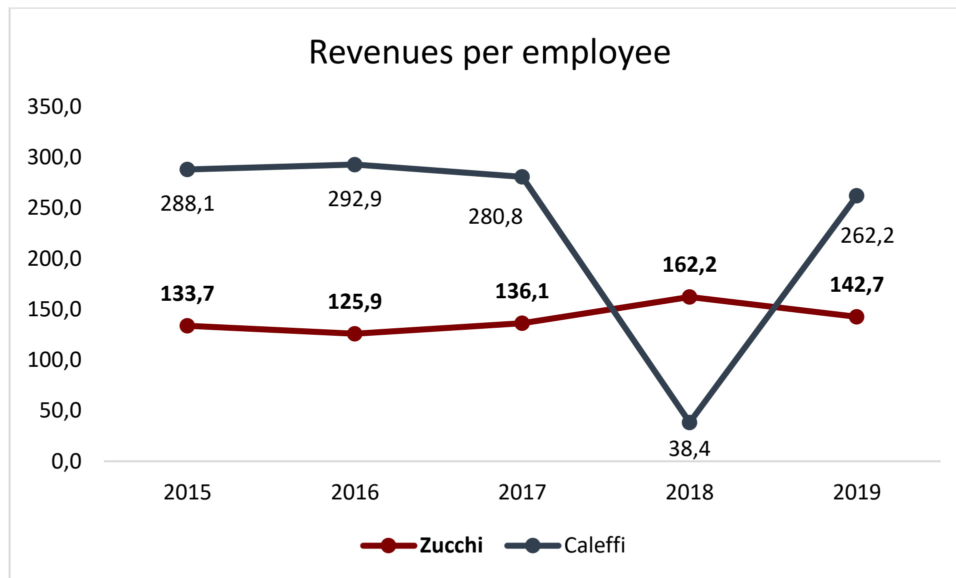


Figure 4.6 – Zucchi: revenues per employee comparison. (T€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

Zucchi's ability to comply with the turnaround measures undertaken is more visible from the evolution of the EBITDA over the analyzed years (*Figure 4.7*).

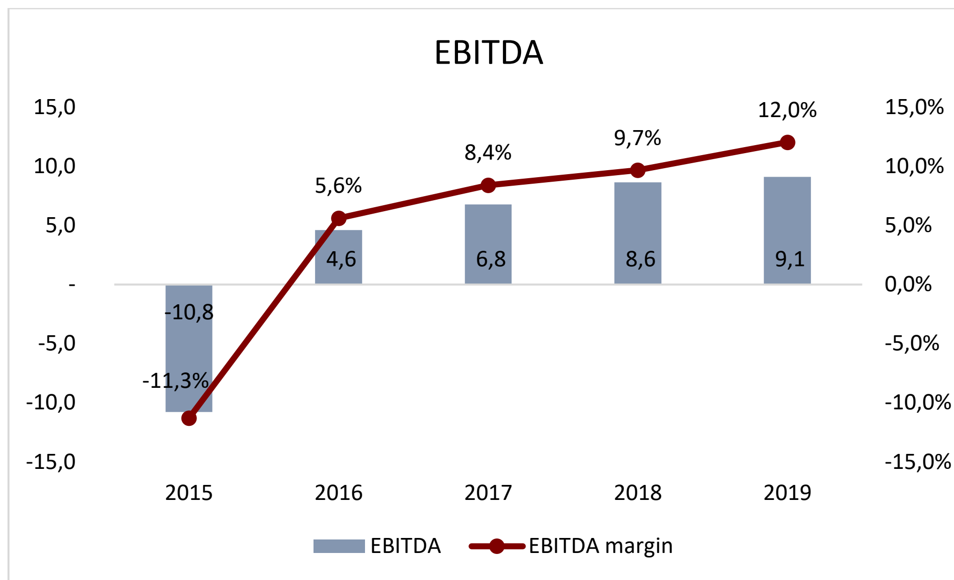


Figure 4.7 – Zucchi: EBITDA (M€) and EBITDA margin. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The EBITDA trend appears relatively positive and growing, both in terms of absolute value and in relation to the amount of total revenues. However, 2015 was characterized by a negative EBITDA of - €10.8 million, with a -11.3% in EBITDA margin, despite being the year with the highest sales volume compared to the time horizon considered. This result is due to the high cost of sales and structural expenses, accounting for - €106.2 million, on which the Group strongly intervened on the following years. In fact, the implementation of strategic measures is visible from the u-turn obtained since 2016. Thus, the positive values accounted in terms of EBITDA were largely due to the reduction in raw materials, consumables and goods expenses, as a consequence of the lower volumes of sales and the rationalization of the number of variants of the supply structure, aiming at the achievement of higher contribution margins. Furthermore, the progressive implementation of the reorganization and cost containment activities of the Group has led to a further decrease of operating expenses. In fact, the reduction of the workforce is primarily visible from the decline of the personnel expenses by -26.6% between 2015 and 2016, while accounting for limited fluctuations the following years. On the other hand, a further reduction in structural costs was essentially due to the decrease in direct management charges of shops and outlets, as well as the reduction of points of sale managed by the parent company. Thanks to these strategic manoeuvres, indeed, the reduction in total sales was offset in 2019 by a reduction in the cost of goods and raw materials (-23.6%) and operating expenses (-20.5%). Moreover, the results obtained in the last two years support the idea that the company has managed to achieve the objectives set by the turnaround phase, thus entering the subsequent development phase.

Taking into account also the non-monetary line items, i.e. depreciation and amortization, it is possible to confirm the slightly positive path of the operating activities (*Figure 4.8*).

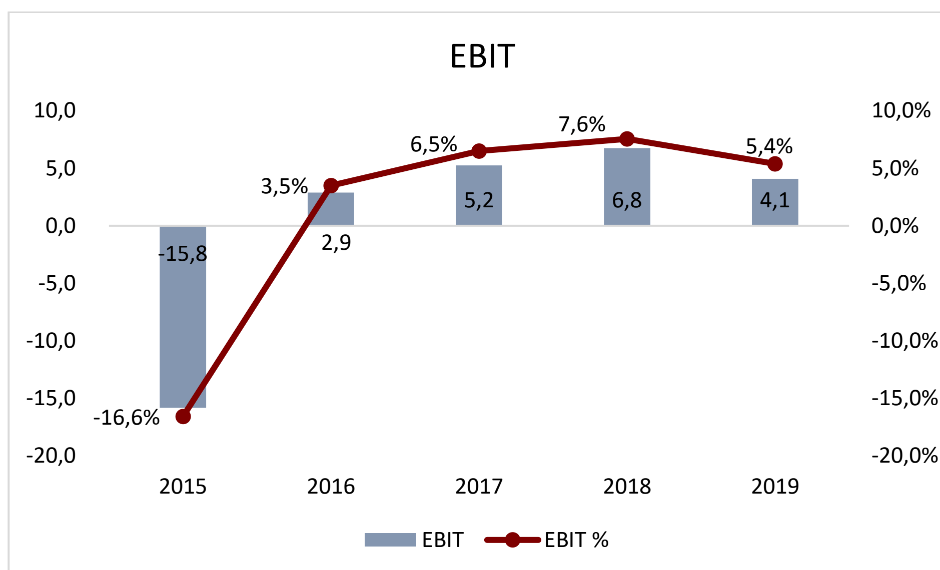


Figure 4.8 – Zucchi: EBIT (M€) and EBIT margin. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The greatest impact in terms of amortization and depreciation is envisaged in 2015 and 2019 while, for the intermediate years, the reduction in EBITDA results quite stable in relative terms. Actually, in 2015 the company reported write-downs for €2.45 million and total A&D for €2.6 million, mainly referred to the fixed assets of the stores for which the closure has been envisaged, reporting therefore a negative EBIT margin of -16.6%. Instead, the impact of non-monetary costs accounted for quite constant amounts, for a mean of €1.7 million, but decreasing in the value of depreciation due to the aforementioned policy of asset disposals. On the other hand, in 2019 Zucchi presented an EBIT% of 5.4% which was greatly reduced compared to the EBITDA% of 12.0%. However, this result is attributable to the accounting of higher depreciation (- €5 million) due to the application of the new standard IFRS 16.

In addition, from the comparison between the EBITDA% of the Zucchi Group and the competitor Caleffi, it is possible to confirm the slightly positive effect of the strategic plan currently in place (*Figure 4.9*). While Caleffi's EBITDA margin results rather stable (despite the reduction recorded in 2018), Zucchi's margin is mildly growing primarily due to the positive impact of the structural changes undertaken in terms of cost containment.

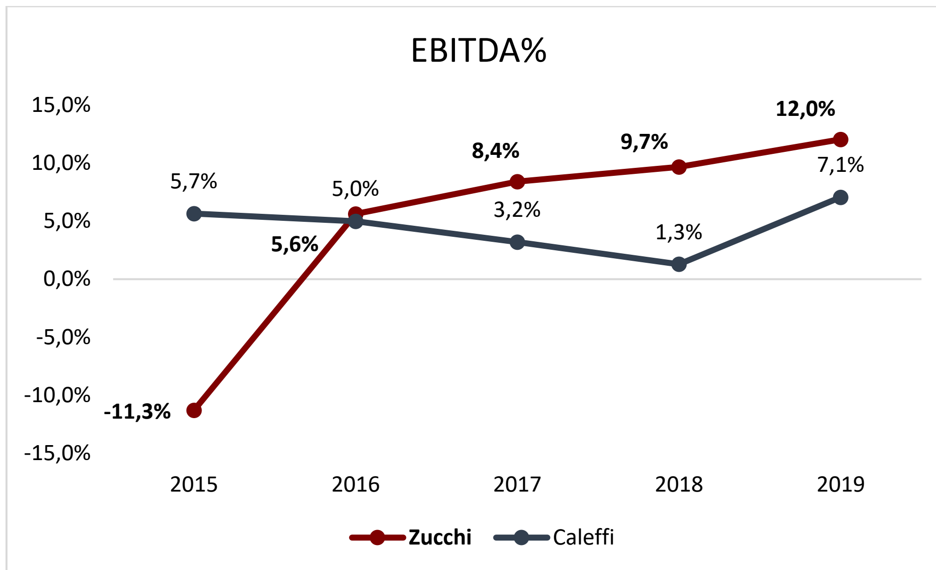


Figure 4.9 – Zucchi: EBITDA margin comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Finally, as regards operating performance, it is interesting to also assess the company's net income trend over the analysis period (*Figure 4.10*).

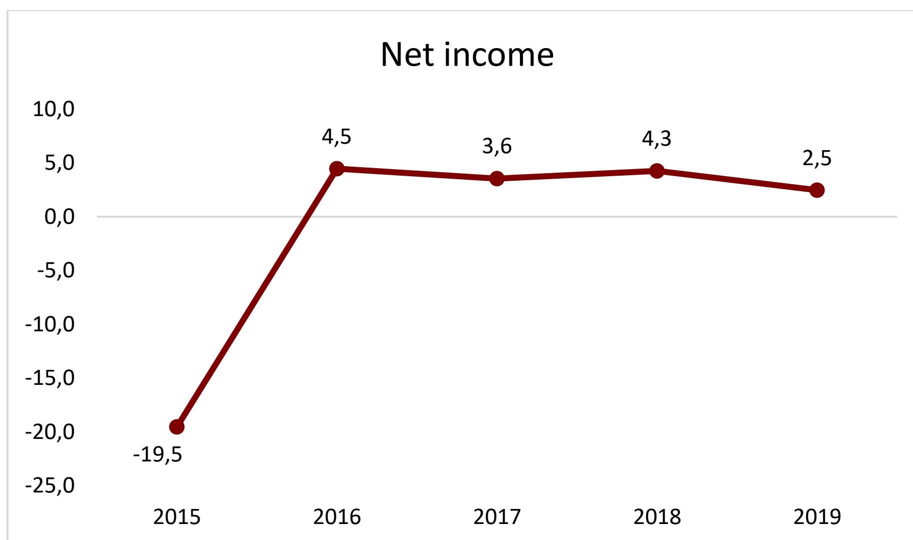


Figure 4.10 – Zucchi: net income (M€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

What is visible is how Zucchi managed, not only, to overturn the strongly negative performance of 2015 (- €19.5), the year of the first application of the business plan, but also succeeded in obtaining positive income results over the years relating to the turnaround and development phases. In fact, this breakthrough was made possible, first of all, by a sharp cut in operating costs and the streamlining of the company's structure, followed by an effective phase of

development with particular attention to the international level, as evidenced by the growth in revenues related to the German subsidiary Bassetti.

4.2.3. Invested capital

Following the analysis of Zucchi's performance in terms of turnover and its margins, in this paragraph it will be possible to investigate the main characteristics of the total funds invested by the company, with a view to their composition and the relevant changes occurred in the analysis period.

From a preliminary outline of the composition in percentage terms of total funds invested (*Figure 4.11*), there is a net prevalence relating to net working capital. In particular, the latter assumes a reduced weight in the last four years, as compared to 2015, due to the gradual reduction in other operating and non-operating assets and liabilities, declining, therefore, from a value of 115.6% in 2015 to 71.2% in 2016. In addition, the net working capital together with fixed assets represent the predominant and almost equally divided components of total funds invested by the Group.

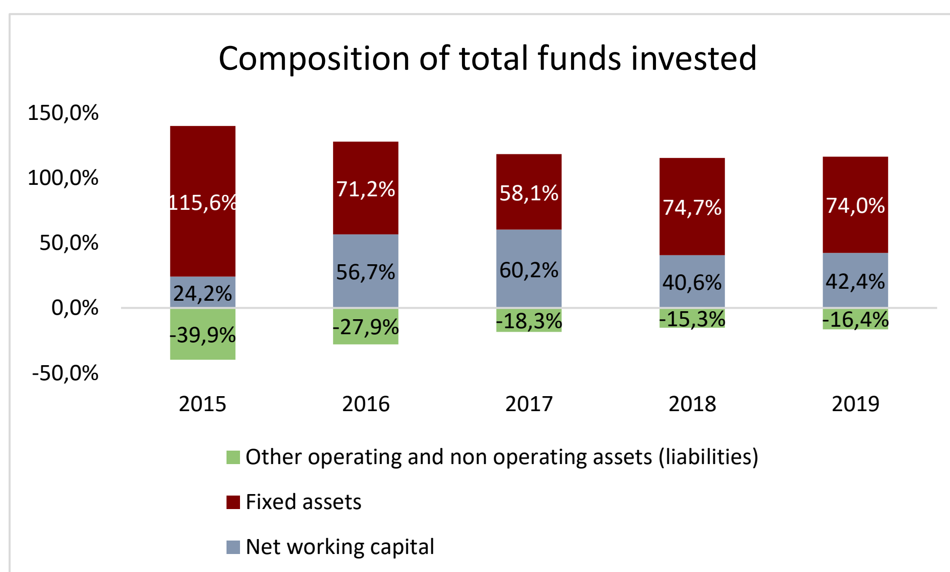


Figure 4.11 – Zucchi: composition of total funds invested. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Before delving into the analysis, it is interesting to point out a concept relative to the dynamic pattern of the net working capital in companies. In fact, in a corporate condition of financial

distress and reduced debt capacity, firms generally rely on different forms of indebtedness in order to be able to guarantee the business continuity, namely trade payables. Consequently, a reduction in net working capital in companies in decline represents a negative signal. Nevertheless, this does not appear to be the case with Zucchi as the company has not shown significant increase in trade payables, as displayed in *Figure 4.12* and *4.13*.

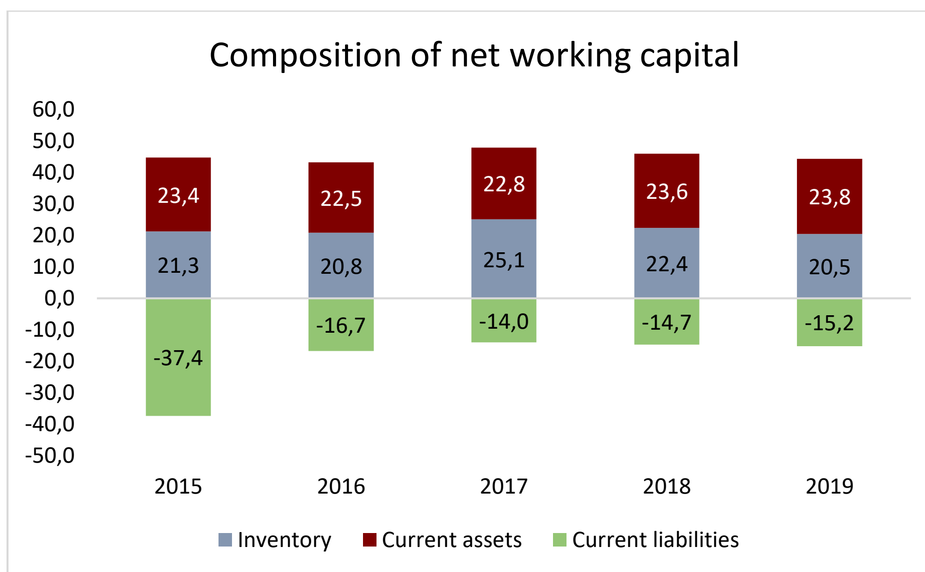


Figure 4.12 – Zucchi: composition of net working capital. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

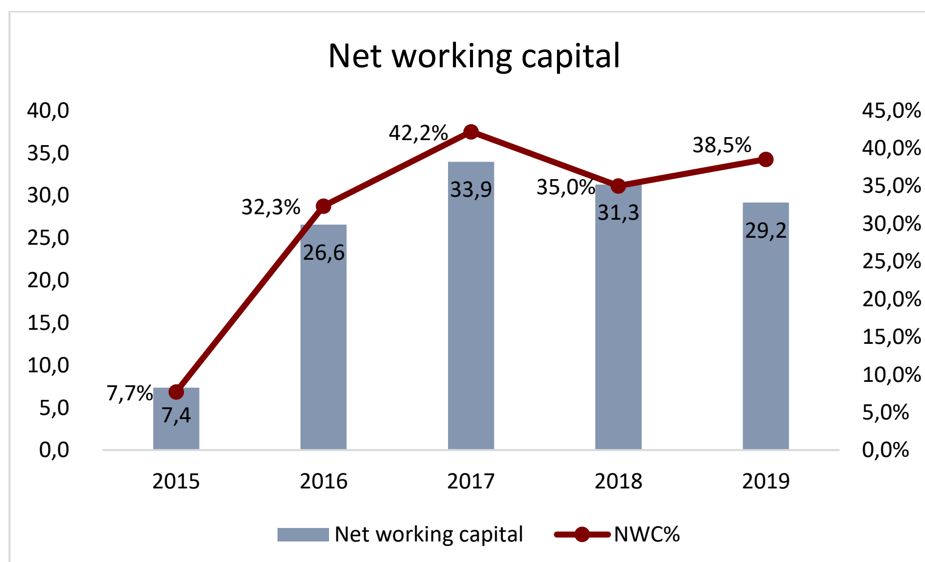


Figure 4.13 – Zucchi: net working capital. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

From the analysis of the changes that took place during the examination period, first of all, the contained value of the net working capital in the first year (€7.4 million), compared to the amounts recorded in subsequent years, stands out. Thus, the lower value in net working capital is primarily due to the lowering effect of net other operating and non-operating items, accounting for - €37.4 million in 2015. This amount essentially includes tax, social security and personnel payables existing at the date of the filing for the admission to the composition with creditors procedure (*ex art. 160, l.f.*), declared inadmissible by the court in October 2015. On the other hand, the following four years of analysis have been characterized by a limited impact of other debts on the volume of current assets thanks to the granting of a rescheduling plan for the due debt and its progressive reimbursement by Zucchi.
Indeed, between 2015 and 2016 the company accounted a first increase in net working capital for €19.2 million to be attributable, as discussed, not only to the reduction in other payables but also to a significant decline in trade payables, which more than offsets the reduced volumes of inventory and trade receivables. In particular, this important decline in trade payables is due to the payment of overdue payables of the parent company dating back to the filing of the application for admission pursuant to art. 161 (*l.f.*). Thus, following the change between the first two years, trade payables remain vaguely constant in their amount over the remaining analysis period.
As regards the trend in inventory, the 2015-2020 industrial plan had set the objective of reducing its volume in order to optimize the incidence of net working capital on sales though a de-stocking strategy. What is evident from *Figure 4.12*, however, is the fluctuating trend in inventory with an average amount of €22.1 million, with the first visible result in 2019.

Then, with respect to trade receivables, their value initially decreased, recording a volume of €22.5 million in 2016 compared to €23.4 million in 2015, only to keep increasing from 2017, reaching a total value of €23.8 million in 2019. This is considered to be mainly attributable to an increase in receivables from customers of the parent company belonging to the large-scale distribution channel, as a result of a different delivery plan requested by operators compared to that implemented in previous years. On the other hand, Zucchi has a credit of €6.5 million against Descamps SAS, for which a rescheduling plan has been granted in 2018 because of the latter's difficulties in honoring its debt.

As regards the incidence of net working capital on total sales (*Figure 4.13*), the pattern is quite variable with a mean percentage of 31.1%. In fact, considering the de-stocking objective of the Group and the accounted turnover below the expectations, it can be assumed that there is still

room for an improvement of the ratio and, therefore, a reduced percentage of it with the aim of a better utilization of current assets of Zucchi.

Considering now the comparison with the peer Caleffi (*Figure 4.14*), it is possible to envisage a common path of the ratio, except for 2015. Caleffi, indeed, performs a stable net working capital ratio due to the stability of both its current assets and liabilities and total sales achieved. What should be noticed is that, despite the lower volumes of affairs of the competitor as compared to Zucchi, a similar management can be assumed between the two companies in terms of inventory, trade payables and receivables which, over the limited time horizon considered, can also be traced back to being subjected to similar market dynamics.

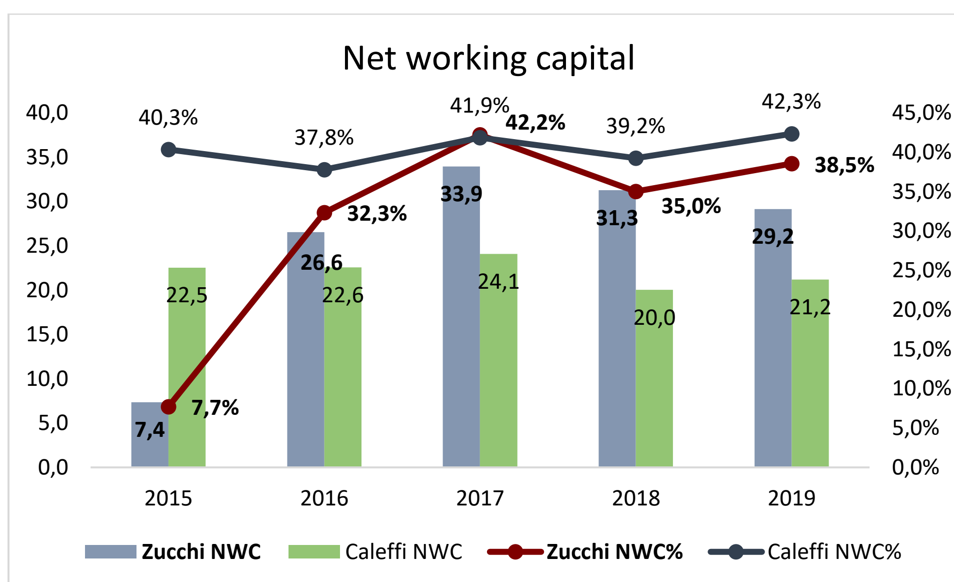


Figure 4.14 – Zucchi: net working capital comparison. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

Considering now the short-term financial solidity of the Group with regard to total current assets and liabilities, *Figure 4.15* will give representation to the quick ratio and the current ratio in respect of the competitor's results. Taking into account a quick ratio of 0.8 as a threshold value below which the company could face difficulties in coping with its imminent payments, it is evident how Zucchi presents for each year lower values. On the contrary, Caleffi accounts for a declining quick ratio but still non-concerning. With respect to the current ratio, a reasonable limit value appears to be 1.2. Also, in this case Zucchi presents lower values with a mean current ratio of 0.6, while Caleffi demonstrates a certain current solidity thanks to its mean ratio of 1.7. In fact, this comparison highlights the greatest financial fragility of the Zucchi Group in timely

fulfilling its short-term obligations and the absence of a visible improvement during the 5-year analysis period.

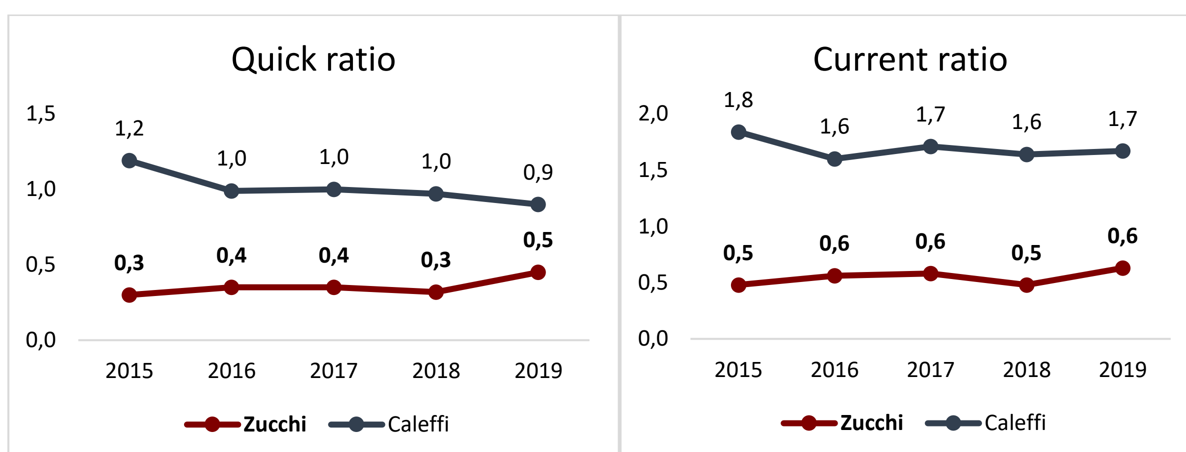


Figure 4.15 – Zucchi: quick ratio and current ratio comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

With respect to total fixed assets, it was considered appropriate not to give a graphic representation due to the clear predominance of tangible fixed assets compared to the other categories of investments, as displayed in *Table 4.1*.

('000€)	**2015**	**2016**	**2017**	**2018**	**2019**
Goodwill	0	0	0	0	0
Intangible assets	536	360	714	1.243	1.551
Tangible assets	34.478	32.919	31.910	56.219	49.167
Equity investments	114	114	114	114	114
Total operating fixed capital	35.128	33.393	32.738	57.576	50.832

Table 4.1 – Zucchi: composition of total fixed assets. (T€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

As it can be noticed, goodwill presents a null amount for each accounting year due to its inclusion among intangible assets. Into specifics, the latter are composed for the most part by industrial patent rights and rights to use intellectual property. Moreover, in 2016 there was a reduction in the item by - €176 thousands due to the elimination of the gross values and related depreciation of assets that have reached the completion of amortization. Conversely, since 2017 there has been an increase in intangible assets due to the purchases of computer software mainly

referred to the upgrade and the implementation of the IT system used by Zucchi, and with an eye to the development phase of the business plan which, among others, provided for the strengthening of the e-commerce channel.

With respect to tangible assets, the first three years of analysis entail a reduction of investment volumes due to the disposal and scrapping of plants, machinery and equipment no longer used in the various plants of the Group, as well as other assets and plants of some stores which have been closed by the parent company and of the subsidiary Basitalia S.r.l.

In 2018 and 2019, conversely, Zucchi's tangible assets are greater due to the intervention of a supplementary agreement signed in August 2018. Into specifics, Zucchi decided to submit to the lending banks the request for a different provision from the one initially envisaged by the 2015 debt restructuring agreement. Indeed, the company has decided to renounce to the transfer of the business branch (constituted by specific properties and €30 million of transferred debt) to the establishment of an SPV. Acknowledged that this modification is aimed at achieving the same negotiating effect initially envisaged by the agreement, the lawyer has granted Zucchi the allocation of these properties to separated assets (*Patrimonio Destinato*). With respect to fixed assets, this provision led to a total increase respectively of €25.08 million in 2018 and €24.05 million in 2019. Furthermore, the supplementary agreement had an impact also on the capital structure.

As compared to Caleffi, the Group's invested capital appears higher both in absolute and relative terms, as visible from *Figure 4.16*. Caleffi reported stable volumes of invested capital during the five years of analysis. On the contrary, the invested capital of Zucchi appears to be growing and, as discussed above, this growth is primarily due to the increase in the net working capital in the first three years and in the fixed capital in the last two. Therefore, its invested capital structure appears quite rigid and not proportionate with respect to sales generated and as compared to Caleffi's results.

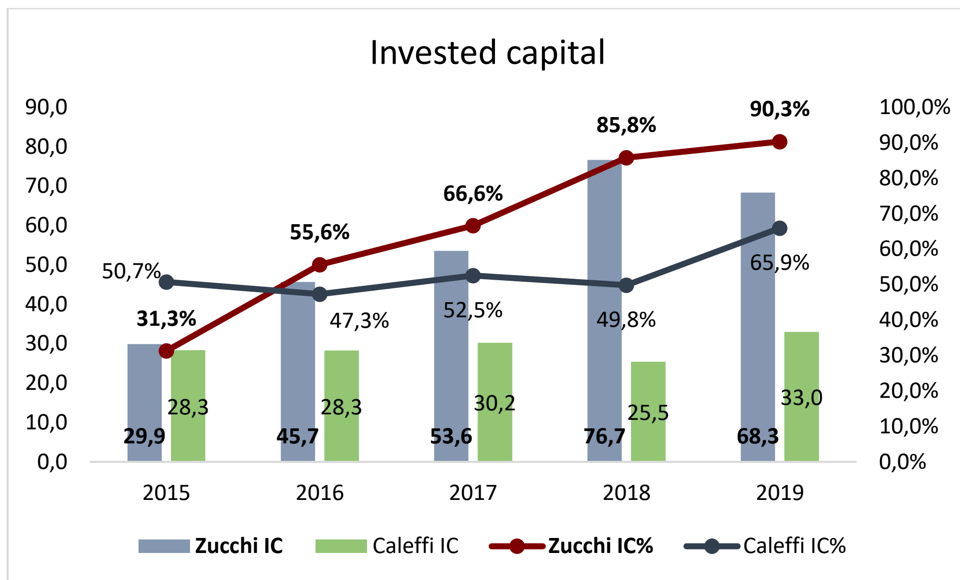


Figure 4.16 – Zucchi: invested capital comparison. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

Considering now the company's dynamics in terms of operating profitability and efficiency in investments allocation, it will be possible to investigate Zucchi's ROA and ROIC as compared to the peer company (*Figure 4.17*). With respect to Caleffi, the Group has performed better under the considered time horizon both in terms of operating activities and return on invested capital. In fact, despite the negative EBIT achieved in 2015 which makes non-meaningful the ROIC calculation due to the simultaneous negativity of the denominator, it presents an average return of 6.2% in the last four years of analysis, with respect to the 1.6% obtained by Caleffi. As regards the ROA performance, the Zucchi Group has achieved an average value of 4.3% as compared to the 1% of the competitor.

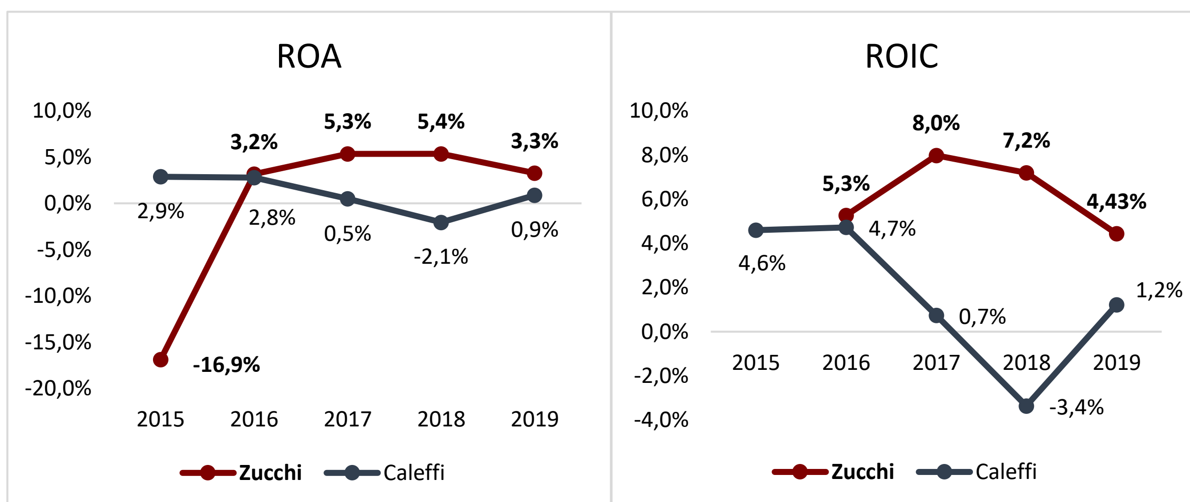


Figure 4.17 – Zucchi: ROA and ROIC comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.2.4. Capital structure

After analyzing the main characteristics of total funds invested, the following paragraph will investigate the composition of the Zucchi Group's capital structure, with specific regard to its equity and net financial position specificities. As it is represented in *Figure 4.18*, the company relies on total source of financing which entails negative but declining portions of shareholders' equity. In particular, the Group has been operating in this condition since 2014 due to considerable amounts of net losses, accounting for - €39.4 million in 2014, which led to a gradual reduction of reserves and share capital. This corporate circumstance, however, appears to be acceptable by the legislator when the phenomenon of financial crisis leads to a necessary debt restructuring, as long as the company is able to guarantee profitability flows over a perspective horizon in such a way to allow the business going concern, despite the negative equity. This would seem to be the case of Zucchi which, on the basis of the measures envisaged by the debt restructuring agreement and the industrial plan developed for the 2015-2020 period, provides for the generation of positive and increasing profitability flows, despite the temporary negative equity.

As regards the dynamic of total source of financing, the erosion in shareholders' equity seems to be decreasing, while still maintaining a negative value. On the other hand, the portion of net financial position represents the main source of financing, accounting for a mean weight of 154.9% (*Figure 4.18*).

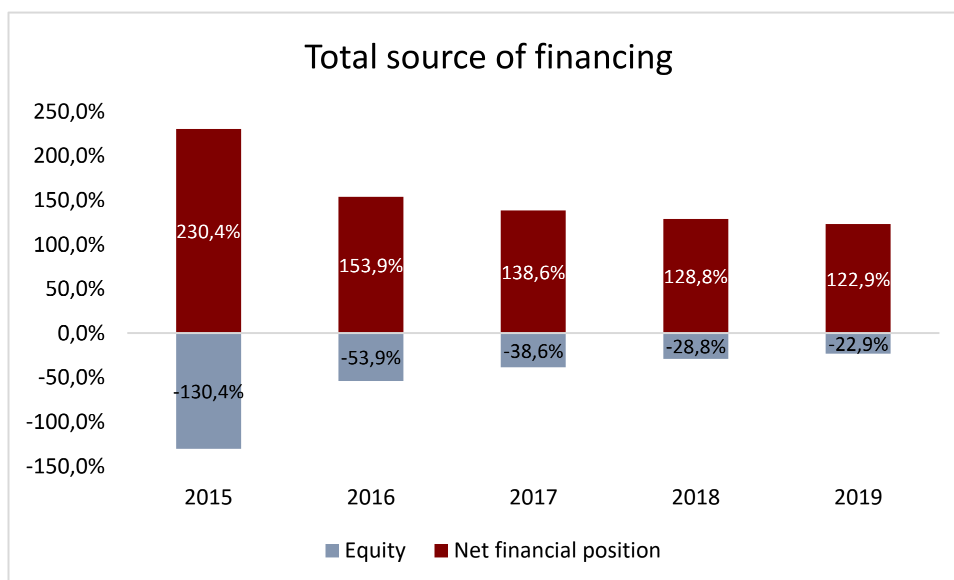


Figure 4.18 – Zucchi: composition total source of financing. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Referring now to shareholders' equity, it is possible to investigate the reasons which led to its gradual reduction over the 5-years period. To this regard, *Table 4.2* gives representation of line items which compose this measure of value.

('000€)	**2015**	**2016**	**2017**	**2018**	**2019**
Net income	-19.531	4.464	3.555	4.264	2.472
Share capital	7.547	17.547	17.547	17.547	17.547
Reserves	-27.620	-47.264	-42.861	-44.024	-35.754
Equity	**-39.604**	**-25.253**	**-21.759**	**-22.213**	**-15.735**

Table 4.2 – Zucchi: composition of shareholders' equity. (T€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

First of all, a change of direction has occurred as a direct consequence of the strategic measures' introduction aimed at reducing structural costs, which have thus produced positive net income since 2016, resulting in an increasing equity. The Zucchi Group, in fact, has been accounting for negative net income since 2004, strongly affecting its equity volumes over a 12-years' time period up to 2016. Therefore, 2016 has registered a first equity rise of 36% also assisted by the capital increase by €10 million. Indeed, the share capital has been fully paid up in September 2016, as resolved by the shareholders' meeting on the basis of the deal provided for by the debt restructuring agreement, through the issuance of 2.000.000.000 of Zucchi's ordinary shares.
As regards reserves, it can be noted that their negative value represents the greatest impact on total equity. Nevertheless, the reserves' reduction intervened in 2019 has led to the higher absolute amount in total equity of - €15.7 million, with respect to the overall analysis period.
Nevertheless, the Zucchi Group is optimistic about its prospective operational capabilities, also supporting the positive impact that the debt waiver of €49.6 million provided for in the restructuring agreement, legally effective since 2016 but not yet implemented, would have on the business.

Moreover, the composition of the net financial position reflects the variations in the company's net debt, highlighting its ability to meet short and long-term repayments with the liquidity generated. Indeed, *Figure 4.19* and *4.20* displays this measure of value in absolute terms and in relation to the EBITDA performed, in order to give representation to the indebtedness of the Group.

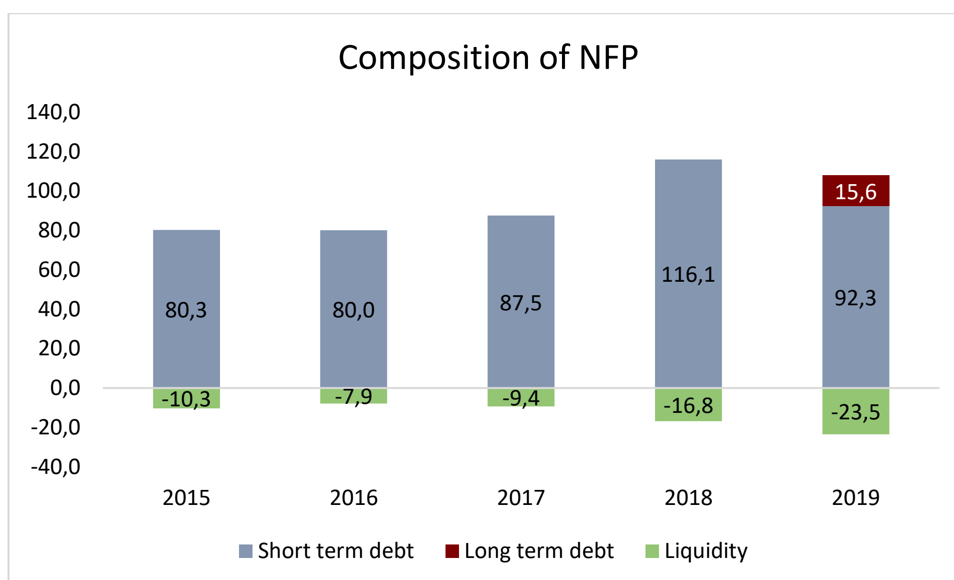


Figure 4.19 – Zucchi: composition of net financial position. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

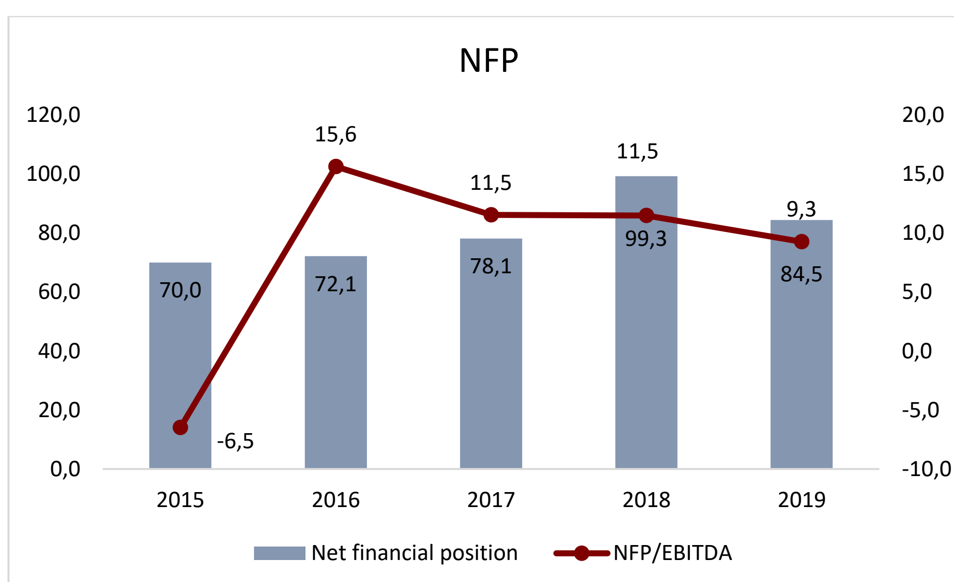


Figure 4.20 – Zucchi: net financial position (M€) and NFP/EBITDA. (*Personal elaboration from AIDA database and Annual Financial Statements*)

First of all, as it can be noticed from *Figure 4.19*, almost all of the Group's bank debt (except for €15.6 million portion in 2019) is short-term due to the restructuring agreement in place. Moreover, it concerns both the €49.6 million debt subject to waiver, pending completion of the implementation of the restructuring deal, and the €30 million current bank debt which would have been transferred with the business unit to an SPV or real estate fund and would have been repaid to the lending banks through the disposal of the real estate conferred.

Actually, in 2018 Zucchi envisaged an integrative deal concerning the renunciation of the business branch transfer to an SPV and, on the contrary, it provided for the establishment of separated assets (*Patrimonio Destinato*) to which assigning the properties and transferred debt.

Furthermore, the difference of €21.15 million between the 2018 and 2017 net financial position refers to payables relative to the separated assets that have been reclassified to other lenders, as a result of the acquisition pro soluto by DEA Capital Alternative Founds Sgr of the receivables and related rights from Banca Intesa, Banca Nazionale del Lavoro, UniCredit e UBI Banca.

Finally, as regards 2019, long-term debt of €15.6 million is referred to payables to other lenders for leased assets deriving from the rental contracts of the buildings where the Group's points of sale are located and for the long-term rental of cars.

From the net financial position analysis, it can be highlighted how the high indebtedness results unsustainable also in light of the liquid assets owned by the Group. This condition is also visible from the NFP/EBITDA ratio (*Figure 4.20*), which assumes a high mean value of 11.9x over the last four years of investigation. Under absolute terms, these results represent an underperforming company with a questionable going concern probability. However, in consideration of the credit lines guaranteed by the lending banks and the remission of the debt provided for by the agreement, the situation appears to be sustainable for Zucchi thus demonstrating a first phase of recovery.

Comparing now the capital structure of the company with respect to Caleffi, it is interesting to observe, in particular, the path of the NFP/EBITDA (*Figure 4.21*). In fact, the trend of the interest coverage ratio (EBITDA/interest expenses) is of limited comparability since the interest on bank payables refers only to those accrued on self-liquidating credit lines governed by the restructuring agreement, while no interest has to be paid on the debt subject to remission.

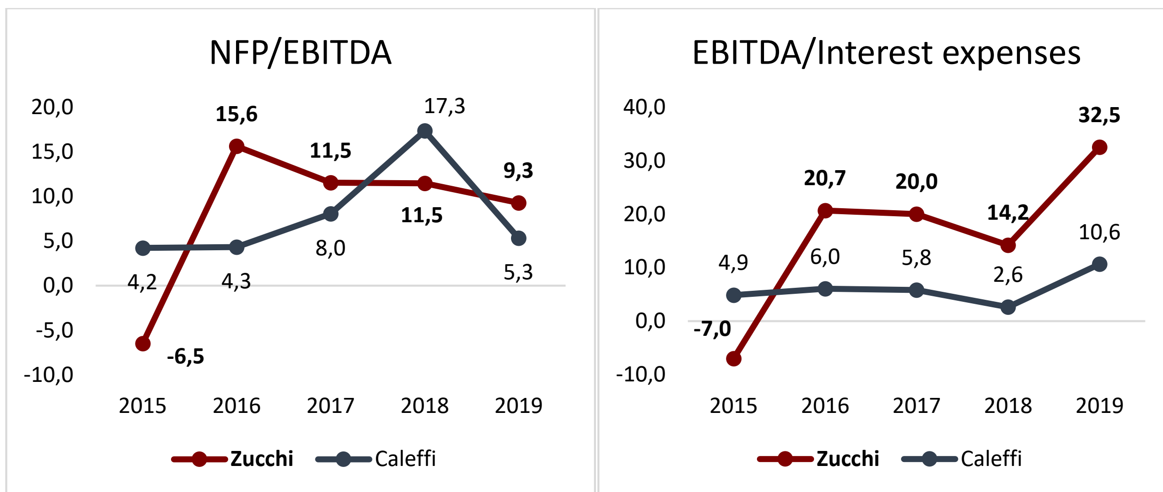


Figure 4.21 – Zucchi: NFP/EBITDA and interest coverage ratio comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

As regards NFP/EBITDA, the Group performed a high but slightly declining ratio thanks to the modest increase of its EBITDA over the considered period. Thus, with respect to Caleffi, Zucchi seems less likely to be able to honor its debt burden if no debt waiver is provided. In fact, as the largest Italian company in home textiles, the Group has the potential to generate greater EBITDA volumes with respect to the competitor.

4.2.5. Market capitalization

The investigation of Zucchi's performance from the overall market perspective fully reflects the downward spiral of the crisis (*Figure 4.22*). Into specifics, the data shows a decline in the company's perceived value over the analysis period. Indeed, in 2015 Zucchi performed a market capitalization of €15.7 million which declined by -47% in the following year, reaching a value of €8.3 million. Instead, in 2019 the perceived value of the company further declined to €7.4 million. This declining pattern could reflect investors' perception regarding the company's stability but alone does not represent the firm's actual worth. Furthermore, because of the negative volumes in shareholders' equity in the whole time period of investigation, the calculation of the P/B has not been included due to the lack of comprehensibility of the ratio.

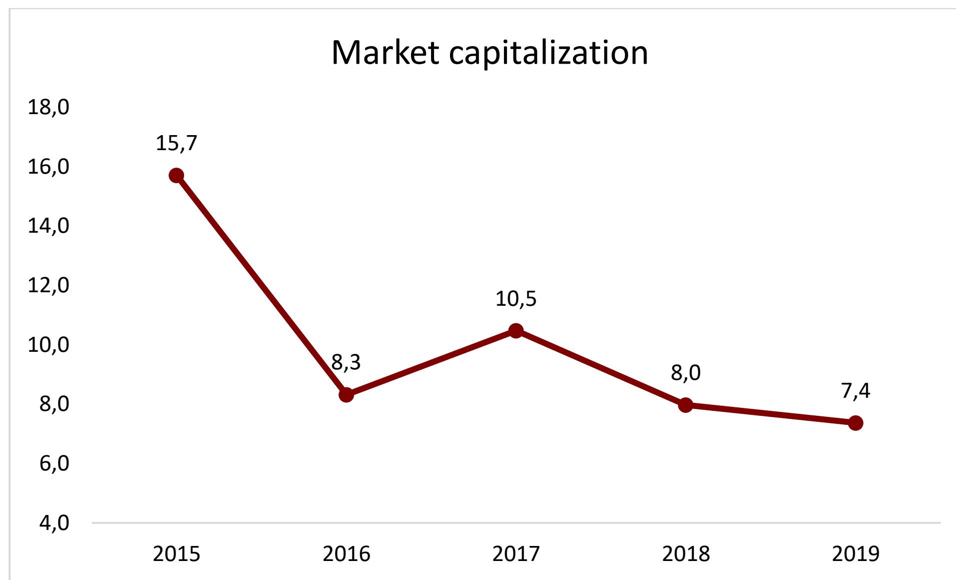


Figure 4.22 – Zucchi: market capitalization. (M€) (*Personal elaboration from Thomson Reuters Eikon*)

4.2.6. Current developments

2020 has not been included in the time period analyzed for two specific reasons: Zucchi's annual financial statements as at 31.12 is not available yet and, furthermore, this year has been critical for almost all sectors of the market due to the outbreak of the covid-19 pandemic. In fact, restrictive measures have required the implementation of cost reductions and defensive strategies in order to stem, as in the case of Zucchi, already fragile business conditions.
Nevertheless, despite the slowdown observed on both Italian and foreign markets, Zucchi managed to achieve good results and, above all, the early resolution of the 2015 debt restructuring agreement (*ex art. 182-bis, l.f.*). Indeed, the final expiry date of the agreement with the lending banks should have been on 31st December 2020, but the company reached a final refinancing agreement in October 2020, leading to the resolution of the restructuring deal. As part of this operation, Zucchi signed a contract for a medium-long term mortgage loan with DeA Capital Alternative Funds SGR and Illimity Bank, the so-called *Facility Agreement*. The refinancing transaction has provided for the disbursement in favor of Zucchi of a total amount of €10.4 million of which:

- A tranche of €7.3 million to be repaid in half-yearly instalments from December 2020 up to June 2025;

- A tranche of €3.1 million to be repaid in a single solution after 5 years from the allocation.

Furthermore, the amount of the Facility Agreement can be increased upon request of the company up to a maximum of €5 million and its obligations are guaranteed by a first-rank mortgage (*ipoteca di primo grado*) established on part of the properties allocated to separated assets (*patrimonio destinato, ex art. 2447-bis, Italian Civil Code*).
Furthermore, the consensual termination of the agreement has made effective the waiver on the banks' for approximately €49.6 million.

Now, referring to the latest available financial statements, i.e. the interim financial statements of September 2020, it is interesting to proceed with a comparison with the results of the same period in 2019. As regards the operating performance, Zucchi achieved total revenues of €47.8 million in 2020, with a decrease of just 0.7% compared to the previous year. On the other hand, both raw materials, consumables and good costs and structural costs registered a decline by - €4.7 million. Therefore, without considering the non-recurring financial income accrued from the debt waiver, the company delivered an EBITDA of €8.3 million, as compared with the €6.3 million of the previous years. This is definitely a good result for the Group which, despite the obvious market difficulties, has managed to achieve for the fifth year in a row a result that is, not only, positive but also growing, compared to many years of negative EBITDA.

Moreover, the positive impacts of the refinancing agreement and the early resolution of the debt restructuring agreement are evident when considering the net financial position of the company. In fact, Zucchi's net debt amounted to €28.8 million in September 2020, as compared to €84.2 million of the previous year. Finally, the Group's shareholders' equity, after several years of negative results, reached a positive €36.8 million, benefiting from the accounting of €49.6 million of the proceeds of non-recurring financial nature, accrued from the waiver of the debt.

For the sake of completeness, *Figure 4.23* presents the market trend of Zucchi's share price in order to evidence the main features affecting the company in the last year.

Figure 4.23 – Zucchi: price per share from 2019 to date. *(Morningstar)*

As highlighted, in March 2020 there was a reduction in the share price, which reached the value of €1 per share, due to the government announcement relative to the restrictive lockdown measures implemented throughout Italy in order to contain the covid-19 pandemic.
Then, the following months are characterized by a mean price of €1.20, up to October 2020, when the share price positively increased up to €1.70 due to the early termination of the debt restructuring agreement and the refinancing agreement announcement, recording a positive response from investors.

4.2.7. Considerations on the case study

The case of Zucchi is very interesting due to the long phase of decline, first, and then the crisis, which hit the Group starting from the early 2000s. The company, in fact, found itself facing the consequences of its rigid cost structure deriving from acquisitions made in previous years which did not achieve efficient integrations into the corporate structure and, thus, the full exploitation of the synergies deriving from them was lacking. These structural issues, together with the delayed outsourcing of costly process phases as compared to its competitors, led to the manifestation of the first negative result in 2004. Furthermore, the slowdown of the household linen market has certainly not helped the industrial reorganization phase developed by Zucchi

since 2005. As a consequence, when the global crisis hit the company, it was no longer possible to postpone radical interventions in terms of disposal of non-strategic assets and streamlining of the company's cost structure.

As regards the measures undertaken, the seriousness of the corporate conditions required the implementation of three different debt restructuring plans (*ex art. 182-bis, l.f.*). The first two, namely the 2011 and 2013 debt restructuring agreements, both accompanied by turnaround measures entailing the regaining of profitability, competitiveness and the reduction of the indebtedness level, failed because of a too myopic view of business prospects.
The *third debt restructuring agreement*, namely the focus of the analysis conducted, brough to a successful conclusion. Into specifics, it was based on the *2015-2020 business plan* entailing two phases: *the turnaround phase* (2015-2017) and *the development phase* (2017-2020).
The business plan, in turn, was supported by an important *financial manoeuvre* entailing, among others:

- The establishment of an SPV to which transferring the business branch constituted by €30 million debt and specific properties;
- The debt waiver of €49.6 million by the lending banks;
- A share capital increase of €10 million.

Furthermore, a supplementary agreement undertaken in 2018 led to the renounce to the SPV establishment and the following constitution of separated assets to which the aforementioned business branch has been transferred.

Finally, as previously mentioned, despite the objective difficulties that hit markets in 2020, Zucchi managed to *early conclude the debt restructuring agreement* in *October 2020* thanks to a *refinancing agreement* undertaken by DeA Capital Alternative Funds SGR and Illimity Bank.

Retracing the measures undertaken and the results obtained and, on the basis of the last five years of analysis, we can say that Zucchi has finally achieved a certain stability following the long path of the crisis:

☑ ***Zucchi has managed to streamline its cost structure.***
Total costs of operating management amounted to €106.3 million in 2015, leading to a relevant reduction over the years up to an aggregate decline of *-37.4%* in *2019*. The reductive trend has been further confirmed from the interim financial statements of September 2020. In particular, this reduction was possible because of (1) the closure of

18 stores operating with negative EBITDA margins, (2) the integration of the two brands, Zucchi and Bassetti, and the further cut of overlapping costs, (3) the simplification of the line of products offered.

- ☑ ***Zucchi reached positive EBITDA values and positive net income*.**

  The absolute value of *EBITDA*, starting from - €10.8 million in 2015 and after several years of operating losses, *finally reached positive volumes from 2016 onwards*, achieving the greatest result in 2019, with €9.1 million. The disposal of non-strategic assets made it possible, in fact, to reduce the non-monetary costs incurred by the Group. Furthermore, it is important to highlight the *achievement in 2016 of a positive net result after 12 years of losses*. Specifically, because of the beneficial recognition of the proceeds of non-recurring financial nature, equal to €49,6 million, accrued from the waiver of the debt following the consensual termination of the Restructuring Agreement, Zucchi registered total net income for €52.5 million. In the previous accounting year, on the other hand, income accounted for €2.5 million (2019).

- ☑ ***Zucchi reached a positive shareholders' equity*.**

  Following negative shareholders' equity starting from 2014 (- €26.5 million), which reached its minimum in 2015 (- €39.6 million), the Group has managed to reduce this negative path over the years relating to the business restructuring (2015-2020). This has been possible because of the contribution of €10 million (2010) in the form of a capital increase and positive, albeit limited in their amounts, net profits. The *complete u-turn*, however, has been achieved in the last years thanks to the refinancing operation and the termination of the debt restructuring agreement. In fact, from an absolute value of - €15.7 million (2019), the company finally reached a total shareholders' equity of *€36.8 million (September 2020)*.

- ☑ ***Zucchi managed to reduce its net financial position.***

  Again, the reduction in the company's net financial position was made possible as a consequence of the debt waiver of €49.6 million performed in 2020. Specifically, the net financial debt amounted to *€28.8 million in September 2020*, reduced by *- €55.7 million as compared to December 2019*.

- ☑ ***Zucchi strengthened its international position.***

  During the analysis period, the Group has managed to strengthen its international position, with particular reference to the European market where its German subsidiary Bassetti has achieved a steady increase in turnover.

Overall, the analysis conducted on the basis of the operations undertaken by Zucchi in 2015 and completed, in relation to the financial manoeuvre, in 2020, allows to assess the success of the turnaround process undertaken by the company. As it has been discussed so far, the crisis had a very long development over a period of more than 10 years and with the involvement of different financial measures which required numerous sacrifices to the company. Despite the failure of two restructuring agreements, it can be assumed with reasonable certainty that the last plan implemented in 2015 and concluded in 2020 has decreed a first glimmer of light for the company, but not the end of the difficulties. In fact, these first positive results require ulterior efforts in order not only to be maintained, but to carry in a reasonable future to the company's growth. Indeed, Zucchi is positioned in the medium-high segment of the market and is also a leader in Italy but, despite its positioning, it is not exempt from a relevant competitive context. Therefore, Zucchi must be able to maintain a lean structure without forgetting innovation and the strong push of the market towards online channels.

4.3. Beghelli

Beghelli, leader in the Italian lighting sector, has been subject to monthly additional reporting under the black list (2013-2014) as a consequence of liquidity constraints which severely affected company's performance and, then, to quarterly reporting since 2015 thanks to the successful adoption of turnaround measures, which made it earn a shift into the grey list CONSOB. The investigation of Beghelli's performance under the operating and structural point of view will cover the 5-year period 2015-2019, with an eye to current developments, in order to capture the specificities of its slightly improved results under the grey list. Into specifics, the analysis will refer to the reclassified financial statements reported in *Appendix 3* and, to better appreciate results, a comparison with a competitor was implemented for comparable margins. The competitor selected over the lighting sector has been the Italian company Elemaster. Briefly, this operates in the lighting and mechatronic sectors, offering innovative high-tech electronic equipment. It represents a virtuous competitor thanks to the management of its cost structure and to its reduced indebtedness. Furthermore, Elemaster is strongly focused on continuous products innovation and, as well as Beghelli, operates in foreign markets such as US and Asia.

4.3.1. Causes of distress and financial manoeuvre

Decline

Beghelli has distinguished itself in the emergency lighting market for its range of innovative products and the initiatives undertaken, also in favour of the territory in which it operates. Moreover, on the basis of important growth objectives, the company embarked on a phase of expansion abroad, between the end of the 90s and the beginning of the new century. This has led to the acquisition of different subsidiaries in Europe but also abroad, from the United States to China.

Nevertheless, despite its great attention to the maintenance of a strong competitive position thanks to continuous investments in R&D, namely the company's competitive advantage, which were directed at the satisfaction of an innovative market trend, Beghelli found itself facing several years of financial distress. In fact, the first timid signals of the business decline appeared around 2006, with the general contractions which affected economies, as a consequence of the loss of purchasing power due to the rise in raw material prices (especially

energy), the loss of competitiveness resulting from the revaluation of the Euro and the weakness of the US economy. In spite of this, the effects on the Group were limited and mainly manifested themselves in terms of contractions in sales volumes.

Thereafter, Beghelli entered a more evident phase of decline in the two-year period 2008-2009, following the advent of a recession phase caused by the global financial crisis. In particular, the company has accounted for reduced turnover by -16.8% in 2009, as compared to the previous year. Despite the progressive market deterioration, the company decided to react by disposing non-strategic assets and, most importantly, by strengthening its overall sector positioning by further extending its presence in product sectors synergistic to the traditional emergency lighting. In fact, the Group has extended its scope of activity to the photovoltaic sector, initiating the project "*Pianeta Sole Beghelli*" through the supply of innovative solutions aimed at making the most of this great market opportunity. The supply of innovative lighting fixtures allowed Beghelli to remain competitive in the years of global crisis, thus managing to catch moderate signs of recovery of the electronic and electrical engineering macro sectors in 2010, accounting for an increase of sales by 34.9% with respect to 2009. However, the recovery of sales did not last long because, in 2011, the sovereign debt crisis dominated Europe and negatively affected, among others, the electronic macro sector.

The slowdown of the company's growth and the presence of the first signs of decline are discernible through the analysis of the course of its stock price (*Figure 4.24*). The company presented an average price per share of €1.60 between 2005 and 2006, to then face a boost in April 2007, reaching a peak of €1.70. These fluctuations are assumed to be transitory and caused by the announcement of a dividend distribution occurred over the period under consideration. Moreover, those same years are characterized by initiatives undertaken by the company in the field of renewable energy and the brand promotion through advertising campaigns. Thereafter, the decline is manifested through the reduction of the share price, up to the minimum point of €1.36, reached at the beginning of 2009.

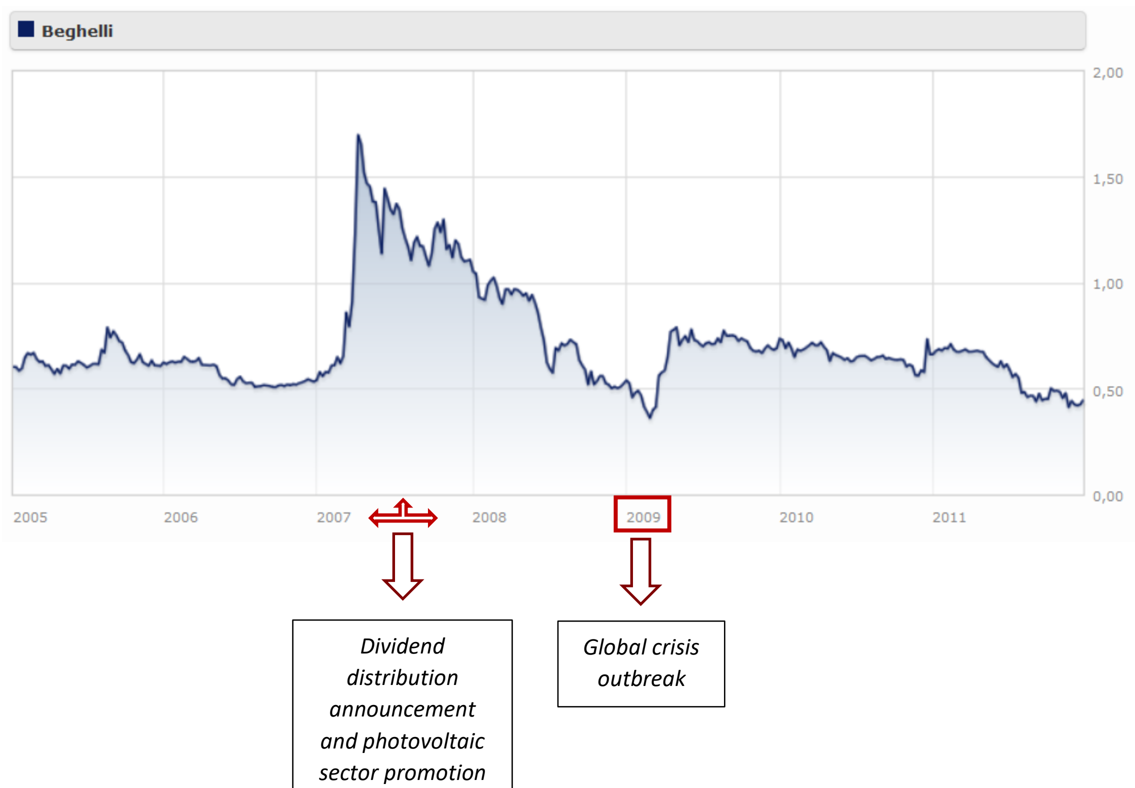


Figure 4.24 – Beghelli: price per share (2005-2011). *(Morningstar)*

Crisis

The crisis hit Beghelli in 2012 to an amplified extent compared to the weak onset of the previous period of decline. In fact, the Group found itself in a condition of severe financial tension which determined uncertainties in relation to the business going concern.

Indeed, according to the company's report, the Group is facing liquidity constraint due to three concomitant factors:

- The sudden and worsening changes in the regulatory framework of the photovoltaic sector, in particular the activation of the *Fifth Conto Energia* (August 2012) and the reduction of the incentive tariff previously received;
- The contraction in volumes on all major markets, mainly due to the ongoing international crisis, had greatly reduced the Group's ability to pursue effective economies of scale capable of absorbing structural costs and maintaining the necessary competitiveness on national and foreign markets;

- The unforeseen contractual and bureaucratic problems related to the divestment strategy of Chinese subsidiary Byd Company, of which the Group held a minority interest. According to the original expectations, such divestment should have injected liquidity for a total amount of €10 million.

Thus, these combined criticalities led to a worsening of Beghelli's financial condition and affected its ability to honor its bank debt and trade payables. Furthermore, the company's liquidity constraint has also negatively affected products' potential development on foreign markets, leading to difficulties in providing the characteristic Beghelli's technological solutions in Italy and abroad. As a consequence, the onset of the crisis made it necessary for the firm to be monitored by CONSOB, which required monthly information disclosure under the black list in 2013.

Despite the serious financial distress, Beghelli promptly intervened by negotiating a debt rescheduling agreement (*ex art. 67, co. 3, lett. d, l.f.*) with the lending banks, which was supported by the implementation of a business plan over the period 2013-2017, further postponed up to 2018, aimed at the relaunch of the company in the domestic and international environment. In January 2014, the adhesion to the debt rescheduling agreement was completed by each bank and it has therefore acquired full effect. As it will be discussed and investigated in a while, the overperformance achieved by the Group in the two years following the adoption of the agreement led to the early termination of the latter in December 2016. In addition, the performance improvement provided for the shift of Beghelli into the grey list CONSOB in February 2015. To this regard, in July 2017 the company has been granted by an extended pool of financial institutions, an unsecured financing of the duration of 7 years and for a total of €40 million, aiming at the restoration of the Group's leverage structure.

Again, the crisis path can be investigated also from a market perspective (*Figure 4.25*). Into specifics, the graph below highlights the outbreak of the crisis in 2012, as it its visible from the downward trend of Beghelli's share price. In fact, from a value of €0.68 (2011), in 2012 it reached a minimum price of €0.35, when the corporate distress was already manifest. Afterwards, the adhesion to the debt rescheduling agreement in January 2014 has been positively perceived by investors, with a peak in the share price up to €0.53.
The following two years have been characterized by several fluctuations in Beghelli's share price, in line with the positive results obtained by the Group. Then, in December 2016 the announcement of the early resolution of the debt rescheduling agreement together with the negotiations of a financing operation from banks led the price to increase again, reaching the

maximum value of €0.51 in May 2017. Thereafter, 2018 and 2019 have been characterized by a declining pattern, reflecting the worsening of Beghelli's performance and reaching the lowest share price of €0.21, as it will been seen in the analysis conducted.

Figure 4.25 – Beghelli: price per share (2011-2019). *(Morningstar)*

As regards the restructuring measures undertaken, the guidelines of the business plan (2013-2018) initially approved are based on very cautious development forecasts (average annual growth rate of revenues equal to 1.0%), as suggested by the company's lending banks, and they concern:

- The development focus on the core business of the lighting sector, with sales reduction in Italy and the maintenance of a slight growth on the international level;
- The reduction of expectations on the photovoltaic sector, in relation to the recognition of the drastic market and subsidy contraction;
- The reduction of the commercial offer in relation to lighting equipment and services to energy saving, with the introduction of an innovative proposal (*Rivoluzione Luce*) whose growth potential reported in the plan are decidedly contained with respect to expectations and signals received from the market;

- Costs reduction with interventions targeted to:
  - the improvement of the saturation level and the downsizing of the industrial capacity together with the dismissal of non-strategic industrial assets, without prejudice to the continuity of production,
  - the reduction of labor costs, through the reduction of the workforce and the use of the *Cassa Integrazione Guadagni*,
  - the reduction of advertising costs and a better focus on the activities of the R&D,
  - the design optimization of the product range, with the consequent improvement of productive benefits and margins,
  - the improvement of the management of the sales-stocks-transformation-purchase chain with a consequence on the relationship between service, profit margin and dedicated working capital.

These turnaround actions have been integrated with a financial manoeuvre endorsed in the debt rescheduling agreement signed in January 2014 (*ex art. 67, l.f.*).
The intervention of the lending banks and the leasing companies in support of Beghelli's financial and operating performance provides:

- The confirmation of short-term credit lines with restoration of the relative amount's availability as at the beginning of the negotiations of the agreement, for a further period of 4 years, until December 2017;
- The moratorium on medium/long-term loan capital instalments for a period of a further 3 years (until December 2016), together with a revised depreciation plan;
- The rescheduling of the real estate leases payments through the reformulation of the plan of depreciation over a duration increased by 4 years compared to that contractually expected.

The implementation of the debt rescheduling plan not only had the desired effects, but also exceeded the expectations of Beghelli and the lending banks, thus leading to the early termination of the latter in December 2016. To this regard, in July 2017 the company has further received the support of a pool of lending banks through the subscription of an unsecured financing (*finanziamento chirografario*) amounting to €40 million, over a duration of 7 years. The main purpose of the financing is the reimbursement of short/medium term debt, and for the remaining portion, to the reduction of borrowing related to the use of ordinary short-term facilities.

As it will be seen over the following analysis, the company has faced again a context of economic and financial distress in the period 2018-2019, carrying therefore to a reversal of course as compared to the positive results obtained in the previous years.

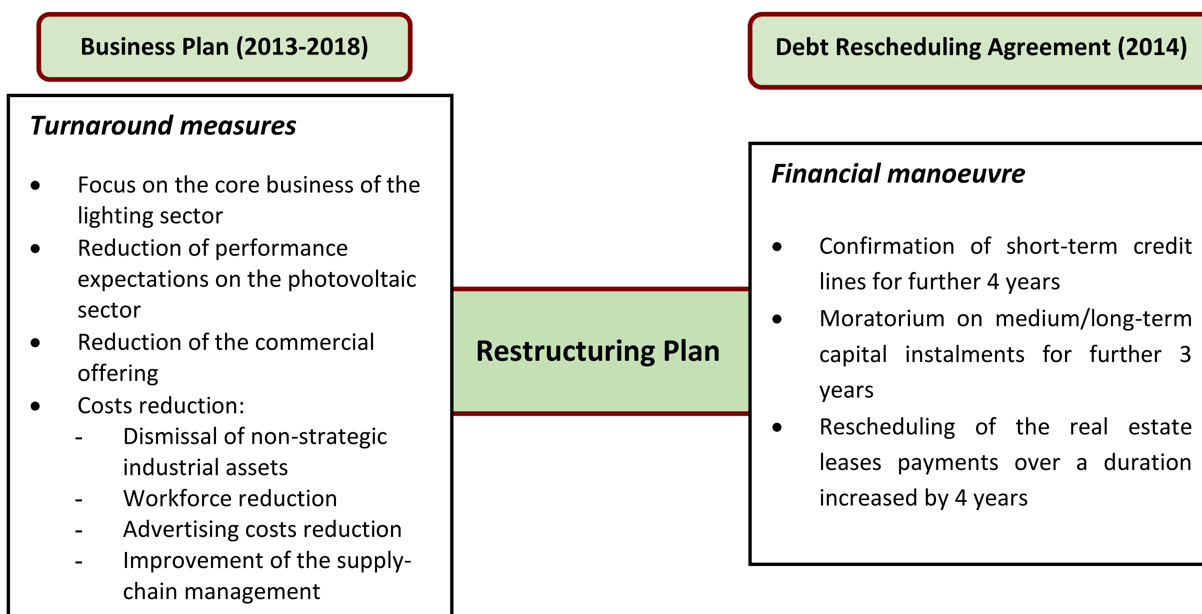


Figure 4.26 – Beghelli: main provisions of the restructuring plan (2013-2018). *(Personal elaboration from Beghelli website)*

Taking into account the overview of the turnaround initiatives undertaken, it will be possible to investigate in the following paragraphs the results obtained for a period which retrace the performance of the company between 2015 and 2019. This time period considers the entrance of Beghelli in the grey list (February 2015) in order to possibly assess what has gone wrong with respect to the positive trend achieved in 2015 and 2016, which led to the early termination of the debt rescheduling agreement.

4.3.2. Sales trend and operating profitability

As regards its operating profitability, the company has managed to achieve a significant increase in total revenues in the first three years of analysis (*Figure 4.27*), both in Italy and in foreign markets, but then it embarked on a negative reversing in 2018-2019.

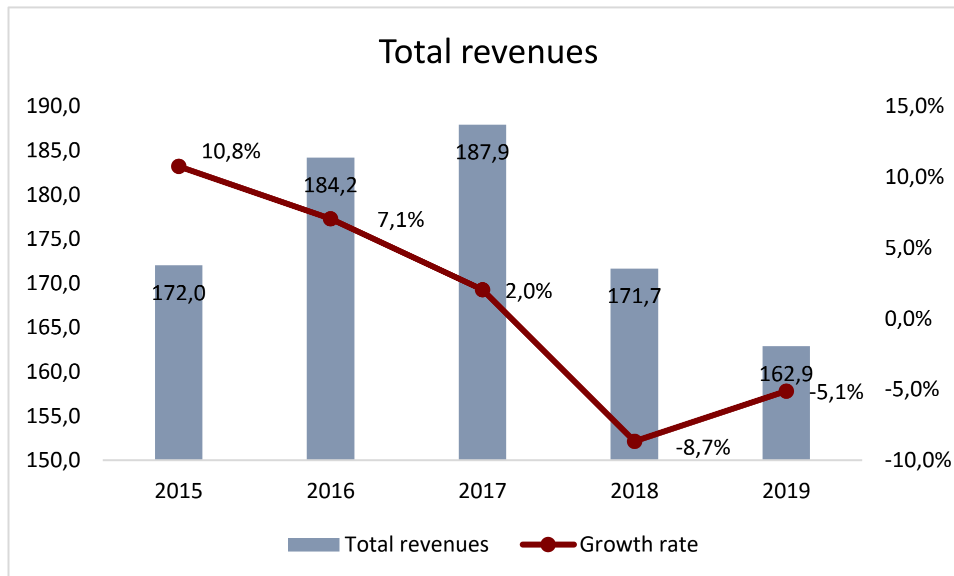


Figure 4.27 – Beghelli: total revenues (M€) and revenues growth rate. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Into specifics, the highest growth was recorded between 2014 and 2015, with a double-digit increase in turnover by 10.8%. As compared to the previous year, the performance improvement is attributable to the sales of light sources (light bulbs), emergency and ordinary lighting equipment, namely the lighting sector. In particular, the latter corresponds to the core business of Beghelli, which has accounted for a revenues growth rate of 13.2%, as compared to the negative result of "other business" sector[22] (-15.5%). Furthermore, both in 2016 and 2017, the Group's revenues growth did not arrest but, on the contrary, albeit slowed down, it led to the achievement of positive results, much higher than the expectations of the company as presented in the business plan. In fact, the Group has achieved an overperformance of the results compared to what has been cautiously scheduled.

[22] The "other business" segment includes consumer electronic devices, as well as systems electronic devices designed to meet the general need for security, both in the home and industrial context and, to a marginal extent, photovoltaic generation plants. It accounts for a limited portion of the company's turnover, between 3% and 5%.

Actually, from the investigation of the first three years (2015-2017), it can be reasonably assumed that the company has successfully implemented the measures planned to restore its profitability, thus managing to make the best out of the focus on its core business and also reducing the performance expectations over the photovoltaic sector.

On the other hand, in the two-year period 2018-2019, there was a significant reversal of direction, first displayed by the -8.7% turnover reduction registered in 2018. In fact, Beghelli found itself facing the negative impact of few factors which hit its core business, namely:

- The weak market demand related to the launch of new product ranges, settled at lower-than-expected values;
- The increasing competition in product prices;
- The lengthening of the time needed to realize and introduce on the markets, both domestic and foreign, the new product ranges in Beghelli’s core lighting sectors;
- The lengthening of execution time of few important orders in the area of lighting services.

Therefore, the industrial margins were lower than budgeted in 2018 and 2019, mainly due to the impacts deriving from the longer time needed to complete the industrial reorganization within the Group's production facilities, aimed at reducing purchase costs, industrial and structural costs and the improvement of Beghelli's logistics system.
As a consequence, in 2018 the company deemed necessary the implementation of a new business plan for the period 2019-2023, which has been further updated for the period 2020-2024 in light of the unsatisfactory results achieved in 2019 and the unexpected advent of the covid-19 pandemic at the beginning of 2020.

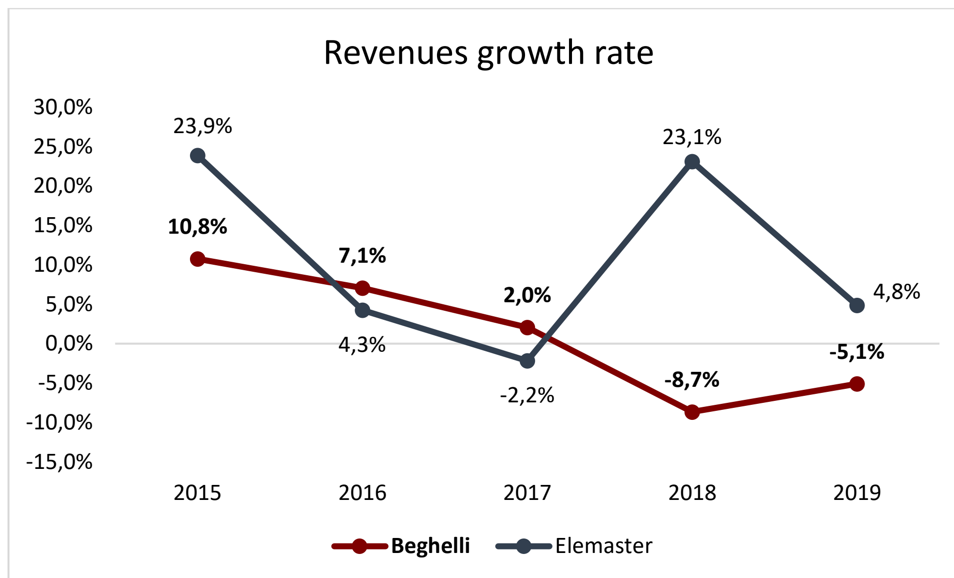


Figure 4.28 – Beghelli: revenues growth rate comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

It is interesting to compare Beghelli's revenue growth rate with the turnover path achieved by its competitor Elemaster. What can be observed is the similar trend with respect to the fluctuations in revenues achieved for the first three years. This implies that Beghelli has been able to recover from the distress condition recorded since 2012, thus returning to follow the market trends. On the other hand, in the two-year period 2018 and 2019 the company significantly deviated from the pattern followed by Elemaster. Since the latter is considered a company with a stable economic and financial position, the deviation accounted by Beghelli further highlights the difficulties encountered and confirms that these are due to factors within the Group, as stated earlier.

As displayed in *Figure 4.29*, the investigation of the amount of total revenues per employee highlights a stable pattern for both companies. In fact, despite the lower profitability of Beghelli compared to the competitor, it is necessary to remember that, as planned, the company has undertaken a gradual reduction of the workforce with the aim of reducing operating costs. Therefore, the stability of the ratio together with the reduction in personnel implies a general improvement in the profitability of the Group.

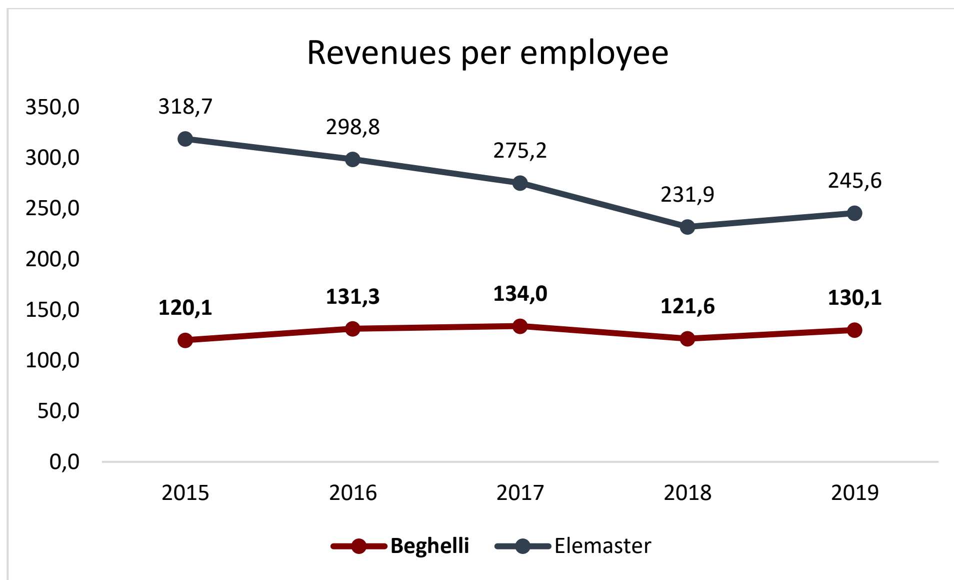


Figure 4.29 – Beghelli: revenues per employee comparison (T€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

Beghelli's operating performance and corporate cost structure are then observable from its EBITDA and EBIT course (*Figure 4.30* and *4.31*).

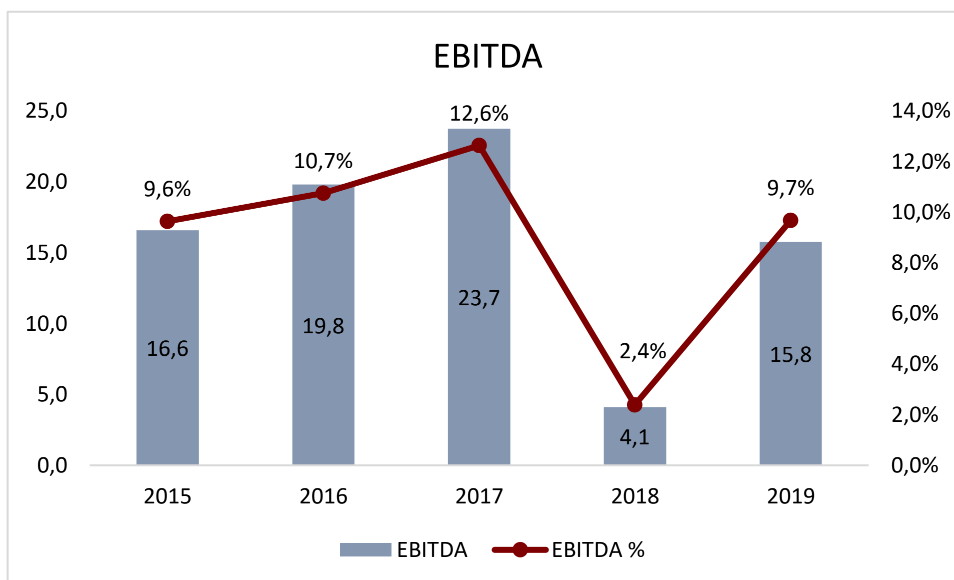


Figure 4.30 – Beghelli: EBITDA (M€) and EBITDA%. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The positive revenues trend achieved in the first three years of analysis is ulteriorly confirmed by the EBITDA results. Into specifics, operating cost dynamics remain rather stable in the period 2015-2017, despite few exceptions. Thus, the expense of raw materials, consumables

and goods has naturally increased due to the rise in sales volumes and, contrary to expectations, Beghelli has also invested more in terms of advertising costs. In fact, according to the premises of its business plan for the period under analysis, advertising expenses should have been reduced also as a consequence of the reduction in new products launches. However, in 2016 the company has accounted an increase of €3.6 million in the item "advertising, fairs and other promotional charges", attributable to the launch of a campaign on television networks that has affected a specific range of light sources (light bulbs). In fact, contrary to what provided for by the business plan, Beghelli has undertaken an increase in products offering, still related to its core business, also increasing the advertising costs as a reaction to the positive trend in sales volumes.

On the other hand, the two-year period 2018-2019 saw a sharp reduction in operating profitability. Indeed, from €23.7 million in 2017, EBITDA declined to €4.1 million in 2018, registering a fall of -10.2% in the EBITDA margin. This negative result is due, first of all, to the high volumes of inventory and the considerable procurement costs incurred by Beghelli, with a view to launching new products on the market relating to both the lighting and other business divisions. The company, in fact, has faced lower volumes of sales due to the lengthening of the time needed to realize and introduce new products and to their weak market demand, totally not in line with the expectations.
Despite the fall accounted in 2018, in 2019 Beghelli managed to restore an EBITDA level (€15.8 million) almost in line with the 2015 result, made possible by the retrenchment of operating and overhead costs, as envisaged by the new business plan 2019-2023.

The EBIT pattern (*Figure 4.31*) further confirms the performance trend of Beghelli over the period under examination. In addition, the consideration of non-monetary items in 2018 led to a negative value of EBIT, which was not occurring since the financially distressed two-year period of 2012-2013. In fact, the already limited operating performance of the company has been further reduced by the value of the write-downs, amortization and depreciation by -€9.3 million. Into specifics, the firm has encountered value reductions relating to the property owned by Beghelli Innovation China and extraordinary write-downs of photovoltaic systems, due to unsatisfactory results in the industry.

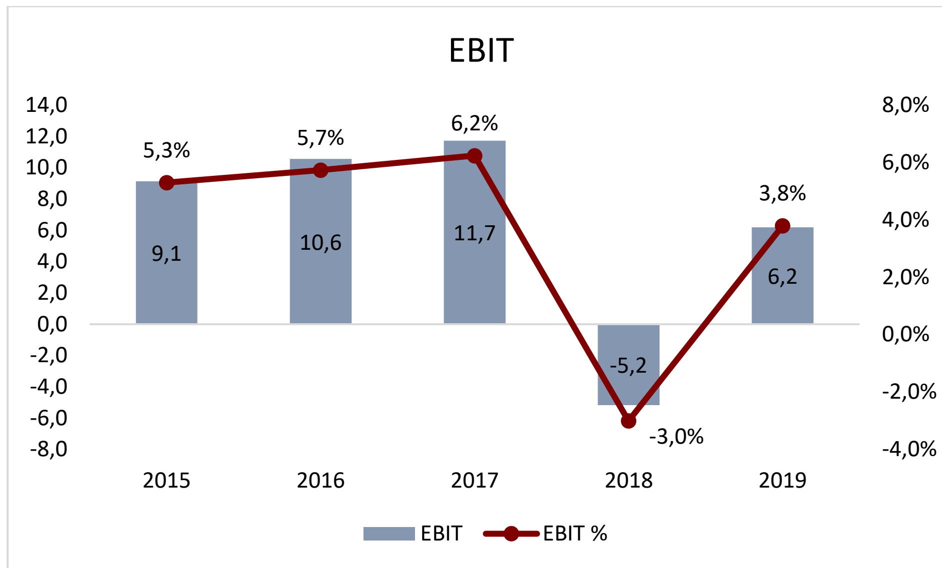


Figure 4.31 – Beghelli: EBIT (M€) and EBIT%. (*Personal elaboration from AIDA database and Annual Financial Statements*)

From the EBITDA margin comparison between Beghelli and Elemaster (*Figure 4.32*), emerges a common path of the ratio with difficulties encountered by both companies in 2018 because of the increased competition in product prices. What jumps to the eye, however, is that Beghelli better performed as compared to the competitor, with an average EBITDA% of 9% vis-à-vis 6.1% of Elemaster. What can be assumed is that, despite the greater sales volumes recorded by the competitor, Beghelli has a less rigid cost structure even if, as seen above, it still presents scope for improvement.

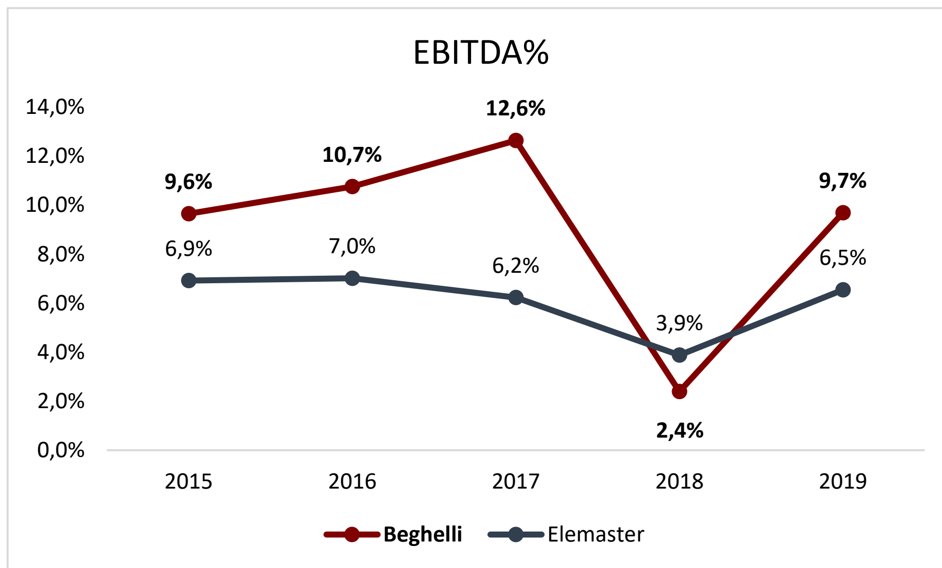


Figure 4.32 – Beghelli: EBITDA% comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Considering the company's performance under the net income point of view (*Figure 4.33*), it is possible to envisage the positive effect of the debt rescheduling agreement in the first three years of analysis, until its resolution in 2016. On the other hand, 2018 and 2019 reflected a net worsening of the Group's performance, not only due to an external factor, i.e. products price competition, but also as a consequence of the too optimistic choices of the group in the launch of new products and the consequent huge purchases made. In fact, the overall innovative attempt has received a weak demand as compared to the forecasted results (- €9.1 million in 2018 and - €1.2 million in 2019). Again, this choice was not in line with the provisions defined in the business plan 2013-2018 and has required the implementation of a new plan for the period 2019-2023 to face Beghelli's difficulties.

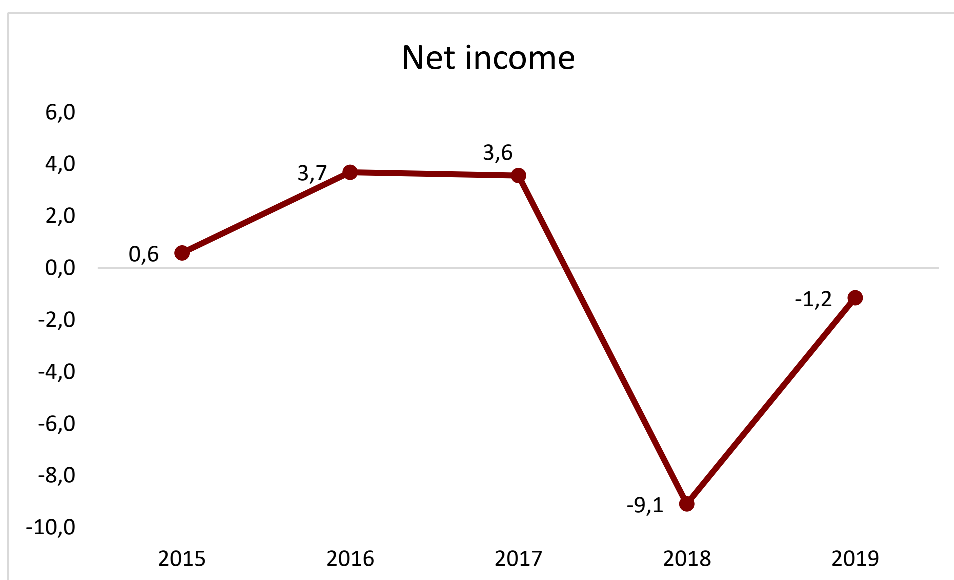


Figure 4.33 – Beghelli: net income (M€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.3.3. Invested capital

The analysis will now deal with the main components resulting from the reclassification of Beghelli's balance sheet. As results from the composition of total funds invested (*Figure 4.34*), there were no major fluctuations in the breakdown of net working capital, fixed assets and other operating and non-operating assets and liabilities. Specifically, there is a slight prevalence of fixed assets with respect to net working capital throughout the period under investigation.
In the first three years, however, the percentage of fixed assets settled on average at 67%, reducing their weight to 56.2% in the last two years. In a first instance and as it will be analyzed in a while, this can be assumed as an effect of the distress faced by the company in 2018-2019.

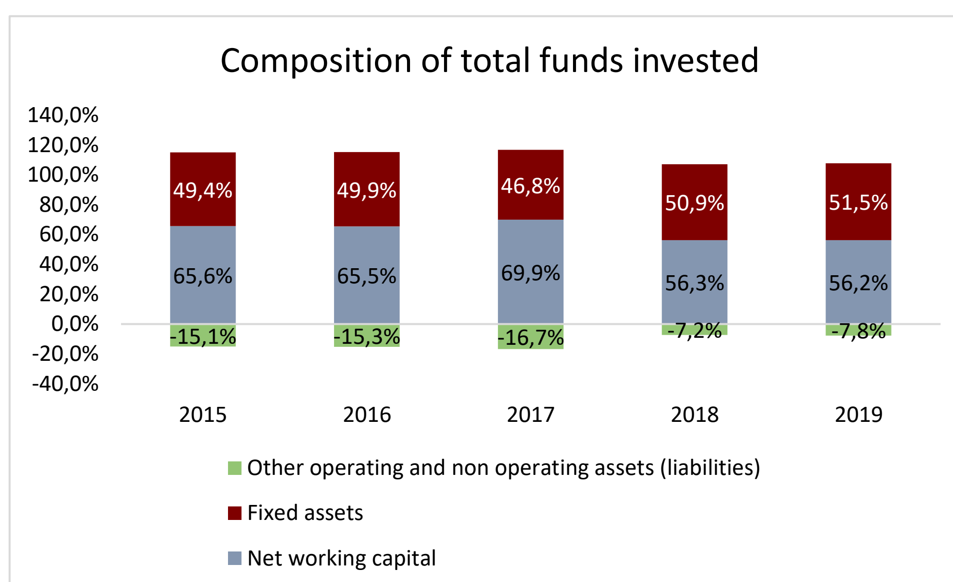


Figure 4.34 – Beghelli: composition of total funds invested. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The first component to be analyzed of the reorganized balance sheet is the net working capital, both in its composition (*Figure 4.35*) and in relation to the sales volume (*Figure 4.36*).

The first three years of investigation present quite stable portions of inventory, current assets and liabilities with slight variations in 2017, which represents the turning point with respect to the deterioration of the company's performance in the following two years.
Above all, in 2015 and 2016 the company has encountered the first positive performance impacts of the debt rescheduling agreement and the business plan introduction. In fact, it has registered a decline in net working capital by - €33.7 million as compared to 2014, due to two simultaneous factors. First, Beghelli has observed an increase in trade payables because of the

boost in supplies of materials and products induced by the higher sales volumes and the positive market trend. In the second place, the company has completed an agreement for the pro soluto sale of certain receivables deriving from both contracts stipulated with private individuals and public administrations relative to the project "*Un mondo di luce*". The generated flows of cash have been used in 2015 for the repayment of the financial debt related to the receivables already subject to previous guarantee in favor of credit institutions, resulting in an improvement in the net financial position, as will be seen in the following paragraph.

In 2017, the company manages to maintain the same volume of net working capital (€123.6 million) while presenting internal changes that offset each other. In fact, Beghelli accounted for a substantial reduction in inventories by - €8.5 million and, in turn, a decrease of - €4.6 million in trade payables due to the contraction in purchase volumes. This change is in line with the provisions of the Group's business plan and is mainly attributable to an optimization of the procurement, management and recovery policy of stocks and to the disposal, through some promotional campaigns, of slow-moving stock.

In the last two years of analysis, on the other hand, there has been a change of direction due to the unsatisfactory market response for the launch of new products and the increased competition in prices. Into specifics, in 2018 the company accounted for reduced net working capital by - €34.2 million, as compared to 2017, and few variations have occurred.
Thus, contrary to 2017, Beghelli has accounted increased inventories by €11.2 million and higher trade payables for €9.5 million, induced by the initial forecasts of an upward trend in markets, which were then revised downwards following the uncertainties encountered in the reference sectors. Besides, the decline in net working capital was mainly made possible because of the securitization transactions and the pro soluto receivables disposal, leading to the derecognition of a great amount of credits. In 2019, on the other hand, a further reduction by - €4.2 million in net working capital has occurred. This was the consequence of the introduction of a new business plan (2019-2023) to cope with the business performance distress and saw the reduction of inventories mainly thanks to an optimization of logistics management and to an absorption of the volumes purchased in 2018 in view of the production and marketing of new product ranges.

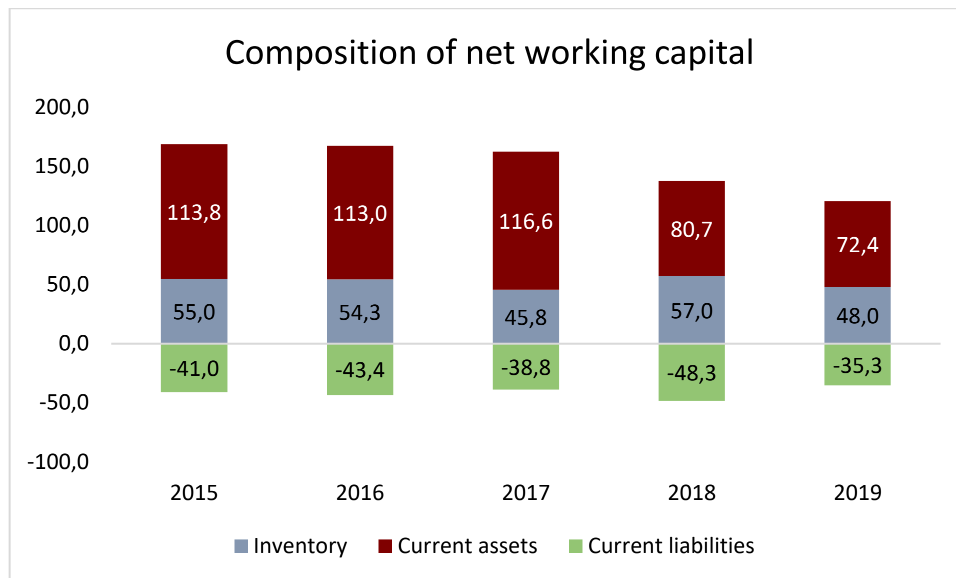


Figure 4.35 – Beghelli: composition of net working capital (M€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

Figure 4.36 shows a slightly declining trend in net working capital margin, as a consequence of turnover reduction. In fact, over the five years of analysis the ratio maintained a mean value of 62.4% giving representation of the company's capability to discreetly cope with the business without the need for additional funds.

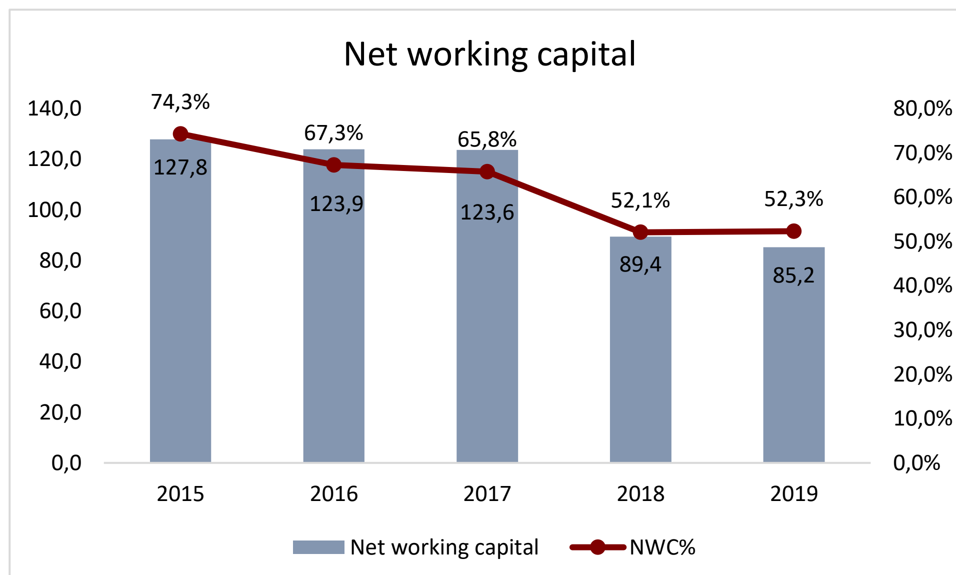


Figure 4.36 – Beghelli: net working capital. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

Considering now the comparison with the peer company Elemaster (*Figure 4.37*), a similar trend emerges but it is characterized by different volumes of net working capital. In the first three years, Beghelli displays an average net working capital of €125 million, as opposed to €71 million of Elemaster but, despite this, the turnover volumes of the two companies have been quite similar. This difference implies a greater ability of the competitor to manage its operations with lower amounts of current assets than Beghelli. In fact, this trend confirms the company's analysis of the first three years, as just discussed, characterized by high inventories to cope with new products launches, contrary to the provisions of the business plan (2013-2018).

On the other side, the net working capital pattern of 2018 and 2019 is more similar to Elemaster's performance thanks, above all, to the implementation of the new business plan which provided for an optimization of logistics management.

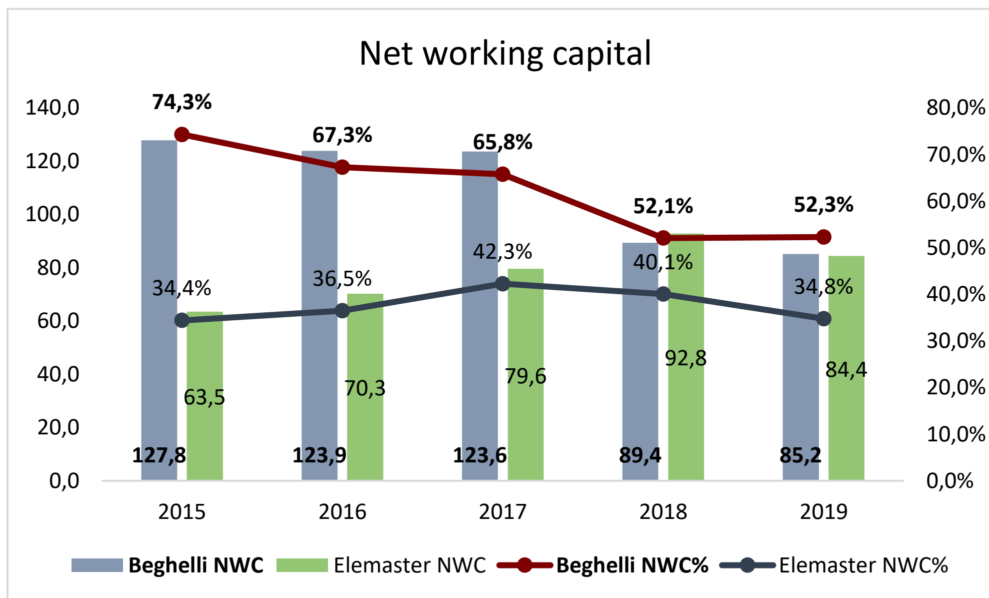


Figure 4.37 – Beghelli: net working capital comparison. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

As well, the course of the quick and current ratio (*Figure 4.38*) presents similarities between the two companies. Despite this, Elemaster displays a better solvency and capacity to cope with short-term liabilities as compared to Beghelli. In particular, the solvency condition of the Group does not show particular concerns, except for the last two years of analysis.

In fact, its quick ratio is below the threshold value of 0.8 and, analogously, the current ratio is lower than the limit value of 1.2. Despite this, the ratios are not towards an irrecoverable path but show the first signs of decline and call for prompt turnaround measures.

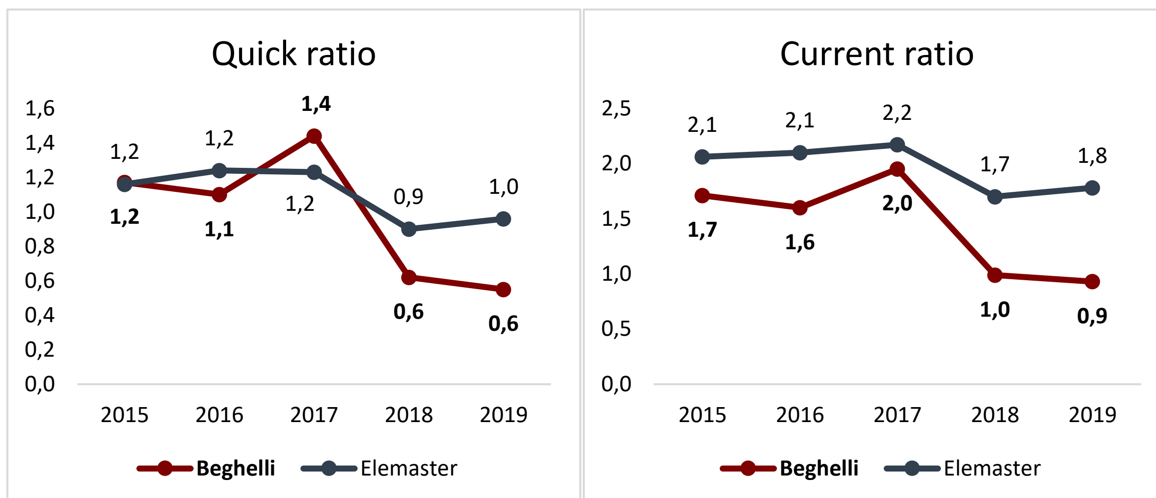


Figure 4.38 – Beghelli: quick ratio and current ratio comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

As regards fixed capital, the amount of assets available to the company did not change significantly during the period under examination, except for tangible assets (*Figure 4.39*).

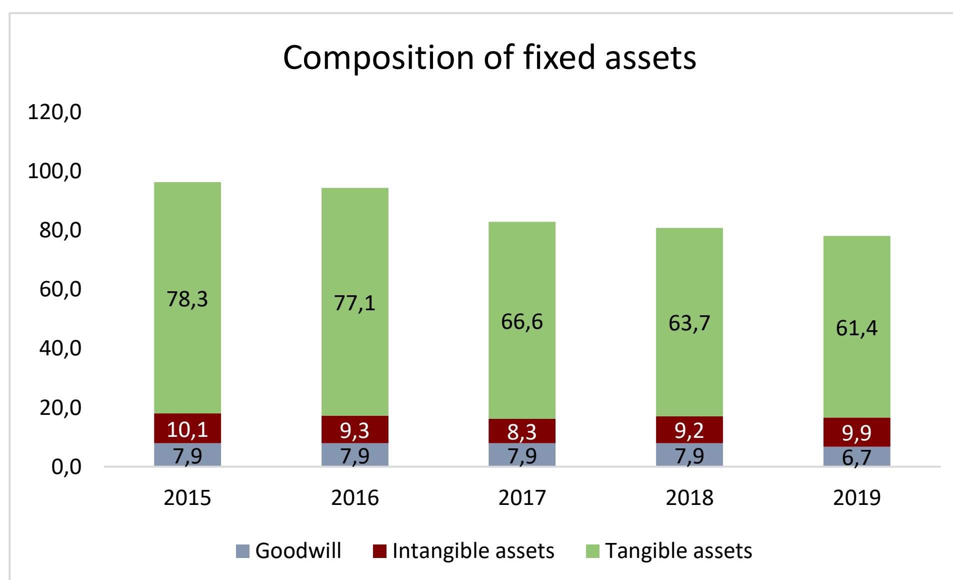


Figure 4.39 – Beghelli: composition of fixed assets. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

As displayed in *Figure 4.39*, fixed assets volumes have remained quite stable during the first two years. However, there has been proportional changes with regard to tangible assets, both in terms of new investments and disposals. Thus, acquisitions were mainly attributable to equipment and molds used for innovative products manufacturing, referring to new launches in the lighting and other divisions. While disposals mainly concerned the sale of obsolete plants and molds used for products out of the production cycle. Therefore, the turnaround action provided for by the 2013-2018 business plan and referred to non-strategic assets dismissals has been implemented but its impact on total fixed assets has been counterbalanced by new investments in the name of innovation.

In fact, the greatest tangible assets reduction has occurred in 2017, as part of the business plan activities, and has accounted for a decline of - €10.5 million as compared to 2016. In December 2017, the company completed the sale to a real estate fund of primary standing in the Czech Republic of the non-strategic plant located in Brno owned by Beghelli Elplast for a total amount of €8.7 million, which cash flow generation occurred in both 2017 and 2018. Moreover, the contract provided for the utilization of the property on loan until December 2020. Thereafter, the slight reduction in total tangible assets took place in 2018 and 2019 too and referred to the disposal of non-strategic plants and machinery, compliant with the business plan provisions.

As compared to Elemaster, Beghelli's invested capital settles at higher values both in absolute terms and in relation to revenues generated (*Figure 4.40*).
In fact, the company presents a mean of €172.8 million in capital invested vis-à-vis the lower volume of €91.4 million of Elemaster over the 5-year period of analysis. Therefore, it can reasonably be assumed that Beghelli has a more rigid corporate structure than its competitor, thus generating slightly lower revenues. Indeed, it appears evident that the Group has not fully adhered to the business plan for the period under examination. Actually, Beghelli did not properly managed to streamline its net working capital through the optimization of its supply chain and, furthermore, did not sufficiently disposed of non-strategic assets.

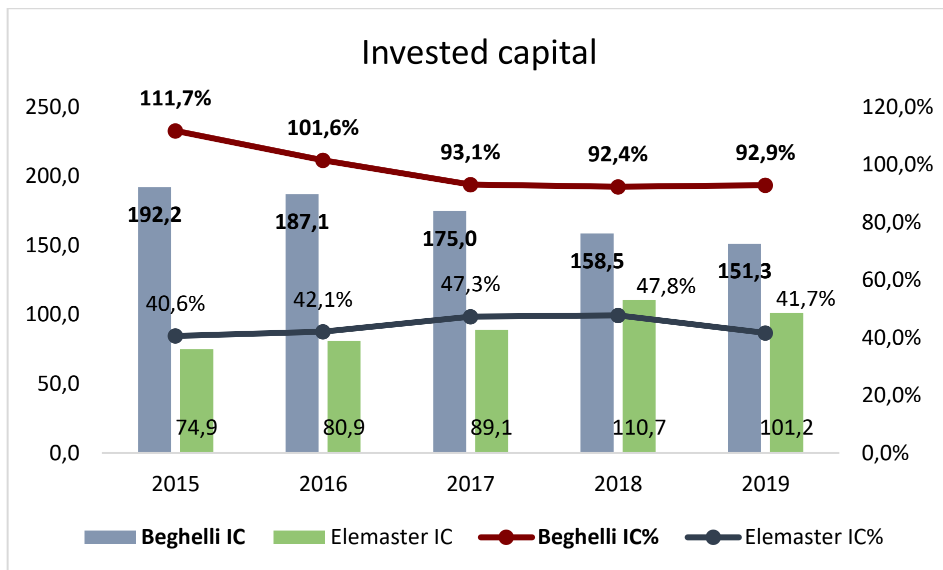


Figure 4.40 – Beghelli: invested capital comparison (M€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

The ability of Beghelli to profit from the utilization of its total funds invested is now investigated through the analysis of ROA and ROIC, also in relation to Elemaster (*Figure 4.41*). Indeed, it is interesting to note how the two displayed, again, a similar path with respect to the considered ratios, while settling on two different levels. In fact, both Elemaster and Beghelli suffered a decline in performance in correspondence to 2018. In particular, the year was subject to difficulties in relation to the lighting sector, also due to the strong product prices competition. What can, therefore, be extrapolated from the graphs is the greater ability of the competitor to face uncertainties related to the external environment, thus maintaining a lower but positive profitability with a 1.5% ROA and 2.7% ROIC. On the contrary, Beghelli accounted for negative levels of both ROA (-2%) and ROIC (-2.8%).

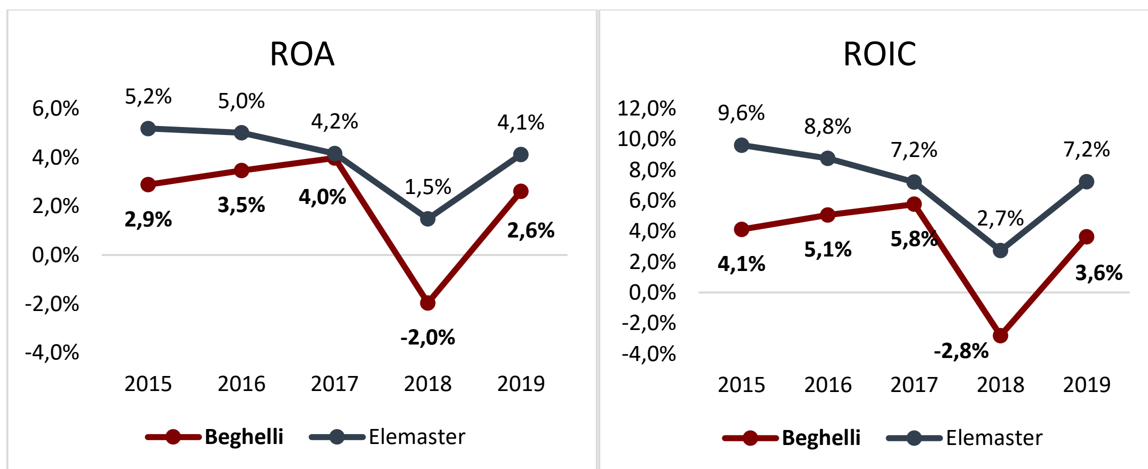


Figure 4.41 – Beghelli: ROA and ROIC comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.3.4. Capital structure

Beghelli's capital structure, composed by shareholders' equity and net financial position, is fairly stable in the 5-year period under investigation (*Figure 4.42*). In particular, equity accounted on average for 58.1% of total source of financing, as compare to 41.9% of net financial position. Actually, its capital structure reflects a certain balance, despite uncertainties which the company faced over the last two years. Therefore, the following paragraphs will deepen the changes that have taken place in the main items of the company as regards to its capital structure.

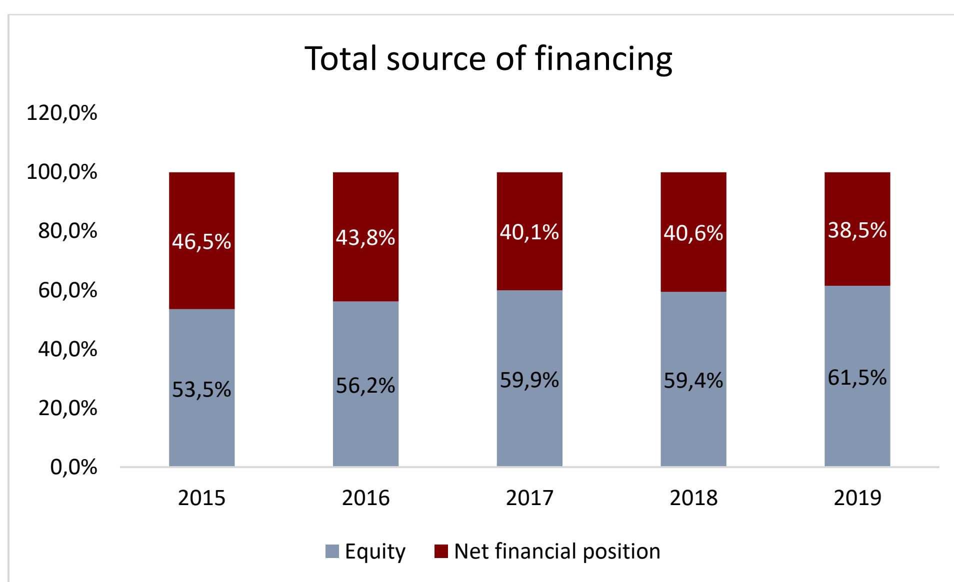


Figure 4.42 – Beghelli: total source of financing composition. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Shareholders' equity was subject to limited variations from one accounting year to another, between 2015 and 2019 (*Table 4.3*). Into specifics, changes in Beghelli's capital structure did not affect the share capital, which remained stable at €9.96 million, but occurred in terms of net income, which fluctuated in the last two years of analysis.

The first slight reduction is noticeable between 2016 and 2017 but, actually, it is the result of dividends distribution amounting to €4 million, for €0.02 per share, which took place after the previous distribution of 2012. Thus, as a consequence of the overperformance accounted in 2016, the company decided to give a positive signal to investors with respect to its future forecasts. Beghelli's future prospects, however, underwent a revision in the following year

because of the negative result of - €9.2 million, which led to a more important reduction in equity, followed by a further loss in 2019, albeit lower, amounting to - €1.3 million.

('000€)	2015	2016	2017	2018	2019
Net income	494	3.831	3.509	-9.187	-1.333
Share capital	9.961	9.961	9.961	9.961	9.961
Reserves	93.336	92.312	92.288	93.306	84.322
Equity of non-controlling interests	452	241	186	133	222
Equity	**104.243**	**106.345**	**105.944**	**94.213**	**93.172**

Table 4.3 – Beghelli: composition of shareholders' equity. (T€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

The analysis of Beghelli's capital structure will now focus on the components of its net financial position, having regard to investigate its level of indebtedness in relation to the period 2015-2019 (*Figure 4.43* and *4.44*).

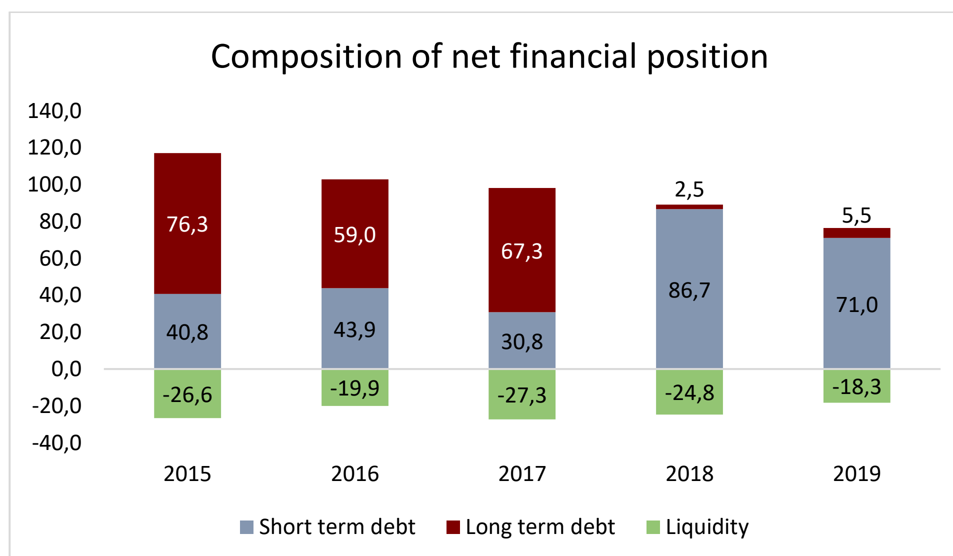


Figure 4.43 – Beghelli: net financial position composition. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

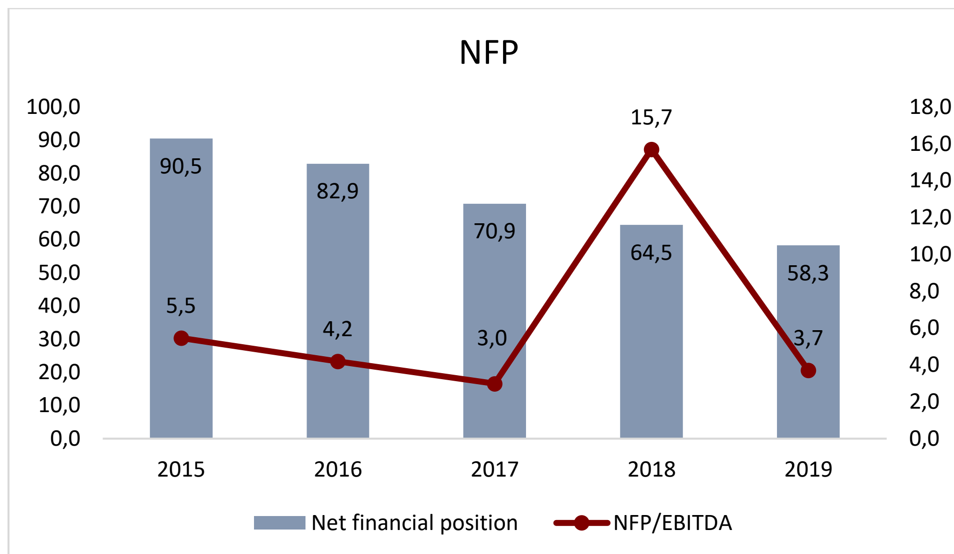


Figure 4.44 – Beghelli: net financial position. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

The company's net financial position has undergone a slight but constant reduction during the years of analysis, accounting for -35.6% in its absolute value between 2015 and 2019. More specifically, net debt has been subject to internal movements especially in relation to its subdivision into long-term and short-term financing.

Indeed, a first significant change is recorded in 2016 due to the simultaneous reduction of long-term debt and increase of the short-term consideration for an amount equal to €13.7 million, mainly attributable to the classification in that section of the portion of loans and financing to be repaid within the next 12 months from the balance sheet date in response to the positive cash flow generation of Beghelli.
On the other hand, the accounting year 2017 reflects the positive impact of the debt rescheduling agreement's early termination, occurred in December 2016, and the simultaneous negotiations with a pool of banks for an unsecured financing for €40 million, subscribed in July 2017. The support obtained by the banks concerned is aimed at improving Beghelli's indebtedness position, extending its average duration and encouraging the pursuit of its performance improvements, as stated in its business plan. The financing operation has reflected in the increase of the item "mortgages and loans" and it has been intended for the extinction of unsecured short and medium-term loans in place, for an amount equal to approximately €27.2 million, and residually to the reduction of the utilization of ordinary short-term credit lines.

The reality of the following two years, however, did not meet the expectations of the company. In fact, in 2018 there was a deterioration in Beghelli's performance also reflected in terms of

NFP/EBITDA ratio which severely increased from 3.0x in 2017 up to 15.7x in 2018 (*Figure 4.44*). Due to the company's non-compliance with the covenants provided for in the agreement with the pool of banks, 2018 showed a reclassification of €53.3 million from long-term to short-term loans and financing, which has been further confirmed in 2019.

Then, in 2019 Beghelli managed to achieve a better NFP/EBITDA (3.7x) ratio thanks to the reduced impact of operating costs on turnover volumes, while still facing uncertainties in relation to its ability to cope with short-term obligations, as previously highlighted by the quick and current ratios (*Figure 4.38*).

From the comparison of Beghelli with its competitor, it is possible to draw considerations in relation to its debt structure and its ability to manage its financial position (*Figure 4.45*).

Thus, Beghelli presents an NFP/EBITDA ratio which, despite the slightly declining net financial position, is strongly influenced by its operating performance as reflected by the peak reached in 2018. Nevertheless, without considering the unpredictable performance of the market in 2018, the debt structure of the company does not seem to raise many concerns, although, compared to its competitor, there is room for improvement.

Actually, what turns out to be worrying is Beghelli's interest coverage ratio. The company presents a mean ratio of 3x, as compared to 37.8x of Elemaster. In fact, some accounting years, namely 2015 and 2018, the operating performance of the Group is sufficient only to meet its interest expenses, highlighting concern in relation to Beghelli's ability to honor its debt burden.

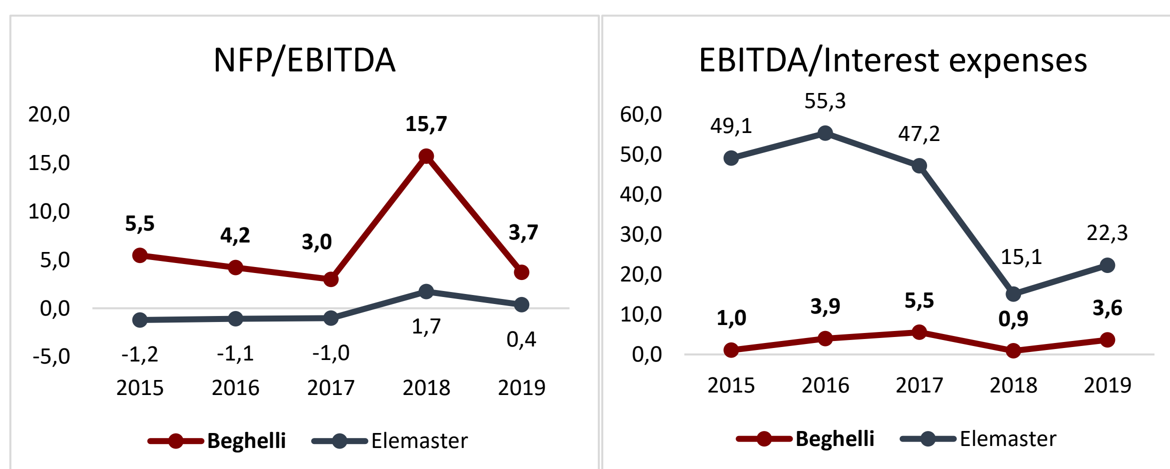


Figure 4.45 – Beghelli: NFP/EBITDA and interest coverage ratio comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.3.5. Market capitalization

Considering now market's perception in relation to Beghelli's performance over the time period under investigation, the company's decline path can be envisaged also from the pattern of its market capitalization and P/B ratio (*Figure 4.46*).

Into specifics, the data shows a gradual decrease of the Group's market capitalization which, from a result of €95.6 million in 2015, declined by -54.8%, up to €43.2 million in 2019. Contrary to this trend, in 2017 there was a slight increase in market capitalization due to the distribution of dividends, which was declared in March and took place in May, six years after the previous dividend payout occurred in 2012. The downward trend has been further endorsed as compared to the P/B ratio of Beghelli. Actually, the ratio always maintained a value below 1, representing both the sector's trend to which the Group belongs and the company's future performance perspectives at the eyes of investors. In fact, a ratio below 1 indicates that the market is undervaluing Beghelli, compared to the intrinsic value of the company on the basis of its shareholders' equity.

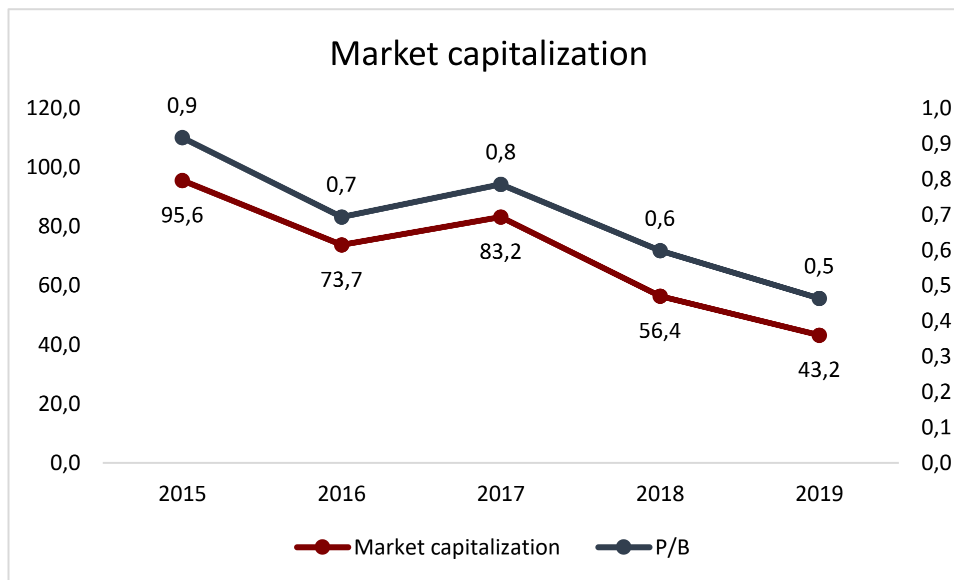


Figure 4.46 – Beghelli: market capitalization (M€) and P/B comparison. (*Personal elaboration from AIDA database and Thomson Reuters Eikon*)

4.3.6. Current developments

The past year, 2020, has been characterized by multiple uncertainties in almost each of the market's sectors due to the covid-19 pandemic. As well as many companies, Beghelli had to face a strongly reduced market demand, further suffering the deterioration in its performance as compared to the already fragile business condition of 2019. In fact, the restrictive measures undertaken to stem the virus spread had direct effects on Beghelli's production and supply chain. Indeed, since March and with reference to the Italian companies of the Group, there has been a slowdown in procurement of production departments and in the fulfilment of portfolio's orders, as well as a decline in customers' demand. Furthermore, with regard to the distribution chain, there were marginal requests for longer payment periods.

As soon as Beghelli was faced with the aforementioned difficulties, it developed a revised business plan for the period 2020-2024, together with the 2020 budget. In particular, it provided for the further dismissal of non-strategic assets, a process of production reorganization through which achieving economies of scale and consequent structural costs savings, the workforce reduction and a further focus on its core business. Furthermore, with reference to revenues volumes, the current uncertainty characterizing the markets, both domestic and international, has led directors to foresee a growth rate substantially aligned with that of the sector, by revising downwards the commercial objectives set by the management, within a forecasting framework for revenues which, in any case, foresees within the year 2021 the almost total recovery of the reduction in 2020 revenues compared to 2019.

From a financial point of view, the significant reduction in sales affecting the domestic market in which the parent company operates, has led to the adoption of measures aimed at liquidity improvements. First, the company has obtained €9 million of financing deliberated according to art. 1 and 13 of *Decreto Legge 23/2020*, relative to urgent measures regarding access to credit by companies. Secondly, Beghelli has received a moratorium on specific medium/long-term financing granted by credit institutions, around €5.1 million. Lastly, to these provisions were added extraordinary state contributions, falling under support measures against covid-19 received from few foreign subsidiaries.

Referring now to the latest available financial statements, namely half-yearly statements, it is interesting to briefly compare the performance of Beghelli in 2020 with respect to the results of the same period of 2019. First, as regards sales results, the company faced a reduction in turnover by -26.9%, accounting for €57.35 million total revenues, with the greatest decline

evidenced on foreign markets. On the other hand, raw materials, consumables and goods costs reduced more than proportionally than sales volumes, experiencing a fall by -47.4%.
EBITDA amounted to €3.75 million, reduced by -75% as compared to June 2019, and, on a like-for-like basis, its downward pattern is strictly correlated to the trend in revenues, in the presence of an improvement in industrial margins in relation to sales, a reduction in promotional costs and personnel costs. Finally, the company accounted for a negative net income amounting to - €5.6 million.
As regards its total source of financing, Beghelli registered a limited fluctuation in net financial position which, thus, increased by €1.25 million and reduced shareholders' equity as a result of the negative result achieved.

Beghelli's share price trend over 2020 reflected the performance deterioration faced by the company (*Figure 4.47*). With a price per share of €0.23 at the end of December 2019, the firm saw a significant decline to €0.15 the 10th of March, first day of lockdown in Italy. Then, the course of the price in the following months further confirmed performance difficulties with which the company had to deal.
Surprisingly, in December 2020 up to January 2021, Beghelli's share price began to increase because of a higher expected market demand for the new business line of air sanitizers and the recovery of the lighting sector, also supported by the trend of energy efficiency. In particular, Beghelli's revenues are expected to reach €175 million in 2024, with a CAGR of 2.9%. In this regard, the positive pattern has been further supported by KT&Partners, namely an Italian financial advisor. The financial boutique started the coverage of the share with a fair value of €0.37, estimating a positive outlook on the company in the period 2020-2024.
Indeed, the share price reached a peak at €0.42 in January 2021.

Figure 4.47 – Beghelli: price per share from 2019 to date. *(Morningstar)*

4.3.7. Considerations on the case study

The Beghelli case study presents interesting points of reflection in relation to its crisis progress, still ongoing, and measures undertaken to deal with the company's turnaround, which were first effective and then suddenly followed by a performance deterioration.

Taking a step back, Beghelli showed the first timid signs of decline shortly before the outbreak of the global crisis in 2008. Indeed, a general contraction affected economies and this, in turn, caused a loss of purchasing power due to the rise of raw material prices and the loss of competitiveness. Thereafter, the advent of the global financial crisis, as for most of the market's companies, brough to the fore a general performance deterioration and a consequent declining demand. Nevertheless, Beghelli did not appear disarmed in the face of the crisis and decided to act promptly by adopting measures in line with its business, primarily linked to the maintenance of a strong position in the lighting sector, while streamlining its cost structure and exploiting its competitive advantage, namely the development of innovative products, by undertaking activities in the photovoltaic sector.

The first signs of recovery in the sector are found in 2010 but, shortly after, the sovereign debt crisis came to an end and Beghelli had to face a severe liquidity constraint in 2012, leading to its inclusion in the black list CONSOB in 2013. The causes that led to the company's financial distress are not entirely accounted as internal and, in fact, they can be identified in three points: (1) changes in the regulatory framework of the photovoltaic sector, (2) sales contraction volumes, (3) unforeseen contractual and bureaucratic issues related to the divestment of its Chinese subsidiary.
Again, Beghelli did not take long to intervene in the management of the crisis, approving a *business plan for the period 2013-2018* and negotiating a *debt rescheduling agreement* (*ex art. 67, co. 3, let. d, l.f.*), fully effective from 2014. The former, provided for the cost structure streamline, the focus on its core lighting sector, and the reduction of both commercial offering and photovoltaic sector's expectations. On the other hand, the debt restructuring agreement entailed the confirmation of the short-term credit lines, the moratorium on medium/long-term loan capital instalments and the rescheduling of the real estate leases payments.
Surprisingly, Beghelli managed to exceed expectations in the years soon after the implementation of the aforementioned turnaround measures, leading to its shift towards the grey list CONSOB in 2015 and the early resolution of the debt rescheduling agreement in 2016. Furthermore, a pool of banks guaranteed to the company an unsecured financing amounting to €40 million.

On the contrary, what happened in the last two years of analysis until now, has been a strong deterioration of Beghelli's performance, initiated in 2018 as a consequence of the unsatisfactory market response to its new products launches.

Retracing the measures undertaken so far and taking into consideration results obtained over the last 5 years of analysis, we can reasonably assume that *Beghelli has not overcome the financial distress yet*, despite few improvements achieved over the years:

- ☑ ***Beghelli managed to reduce its net financial position***

  The company has achieved a reduction of its net debt position. In fact, as compared to 2015, in 2019 Beghelli saw a reduction of -35.6% in net financial position due to the financial support received in 2017. Thus, the €40 million received by the pool of banks was intended for the improvement of its net indebtedness, the extension of its average duration and the encouragement for the pursuit of performance improvements, as stated in its business plan.

☑/☒ ***Beghelli partially reorganized its cost structure***

Total costs for raw materials, consumables and goods amounted to €76.4 million in 2015, succeeded by fluctuating values in the following years, to then reach €74.2 million in 2019, with a total variation of -2.8%. Analogously, personnel expenses remained quite stable, while a slightly greater reduction has been achieved for operating costs, which declined by -13.6% between 2015 and 2019. Therefore, Beghelli did not fully achieved its initial objectives, as stated in the 2013-2018 business plan. Thus, one of the reasons of sales reduction in 2018 was the lengthening of execution time of few important orders in the area of lighting services, due to its supply chain management.

In this regard, the company has established the need of implementing a production reorganization, through which achieving economies of scale and consequent structural costs savings, further reiterated in its 2020-2024 business plan.

☒ ***Beghelli excessively focused on new products launches***

According to the 2013-2018 business plan, Beghelli aimed to defend its competitive position in the lighting sector with the introduction of innovative proposals in its core business. To do so, the company should have reduced the implementation of new product launches and focus on product innovation, with the consequent reduction of advertising costs and the increase in R&D expenses. Actually, what happened has been an increase of advertising costs for new product launches. In a context of increased price competition as 2018, the company had to face a weak market demand, in the face of upfront high investments and numerous inventories relating to new launches. Therefore, the trigger of the new distress condition, after successful results in the first three years of analysis (2015-2017) has been the erroneous forecast of market demand and the excessive focus on new product ranges.

Overall, the analysis of the Beghelli case over the 5-year period 2015-2019 showed a contrasting trend. Thus, in a first instance, the company proved a surprising performance recovery in 2015-5017 thanks to the implementation of the financial manoeuvre and the support of the 2013-2018 business plan. Actually, soon after the first two years of strong distress (2012-2013), Beghelli improved its indebtedness position making it earn the shift into the grey list CONSOB in 2015 and managed to negotiate the early resolution of its debt rescheduling agreement in 2016. Indeed, what triggered the new distress phase has been a series of contributing causes. With hindsight, the company has not fully achieved the measures put in place by the 2013-2018 business plan. In fact, Beghelli was unable to reorganize its cost structure in order to achieve economies of scale, thus finding itself facing a slowdown in the

production of new launches in 2018. Moreover, it has placed excessive attention on the manufacturing of new products with the consequent increase in advertising costs and, under an erroneous market demand forecast, it found itself incurring disproportionate costs in relation to sales revenues. Despite no liquidity constraint has been pointed out and the company does not present concerns in facing its short-term liabilities with its current short-term assets, Beghelli needs to intervene on its production process in order to streamline its cost structure. Furthermore, the trigger of the new distress period seems to lie on the excessive optimist on its performance improvements subsequent to the turnaround period. In fact, despite its improved debt burden up to 2017, the company had placed excessive effort on new launches, neglecting its core business and losing focus on the innovation of existing products.

In summary, Beghelli needs to pursue objectives set forth by the 2020-2024 business plan in order to maintain a lean structure, without overlooking its defendable market position and competitive advantage, namely the continuous innovation in the lighting sector.

4.4. Pininfarina

Pininfarina, a company operative in the automotive sector characterized by a prestigious design, has been subject to quarterly additional reporting under the grey list for almost ten years. Thus, it has been surveilled under the CONSOB's list since 2009, because of its debt burden deterioration, and was deemed restructured in 2019 thanks to the implementation of several business plans and debt rescheduling agreements but, most of all, to an investment agreement which provided substantial capital injection.
To this regard, the investigation of Pininfarina's performance will cover the 5-year period 2015-2019 considering, therefore, the most recent turnaround measures adopted by the Group until its exit from the grey list. Into specifics, the analysis will refer to the reclassified financial statements reported in *Appendix 4* and, to better appreciate results, a comparison with a competitor was implemented for comparable margins. To this end, Italdesign Giugiaro S.p.A. has been selected as the most suitable competitor from the automotive sector. Briefly, Italdesign covers all phases of automobiles development, from styling to the final production, with a particular attention to consultancy services, aiming at the proposal of an innovative product both in terms of engineering and design.

4.4.1. Causes of distress and financial manoeuvre

Decline

The decline of Pininfarina's performance dates back to the beginning of the 2000s. Thus, as an industrial company operating in the automotive sector, Pininfarina undertook a long period of international expansion aiming at the acquisition of foreign firms through which to develop strategic synergies. Therefore, with the objective of proposing as a global partner and in conjunction with its expansion abroad, Pininfarina also invested in the manufacturing of new car prototypes producing each year several designs. Therefore, when the market brought to the fore in the early 2000s the first uncertain trends due to macroeconomic factors, the automotive sector suffered the consequences and, in turn, Pininfarina showed the first signs of decline also by reason of its high indebtedness position.
Actually, the company achieved its first negative results in 2005 when it accounted a reduction of -31.3% in turnover as compared to 2004, with the consequent net loss of - €8.3 million. In particular, this result was strongly influenced by the complete renewal of the production range,

the delay in few orders' departure and the restructuring decided in Italy and Germany, which progressively burdened the cost structure and the net financial position.

The first concrete interventions for the resolution of the company's decline, however, came at the end of 2007 as a response to a further performance deterioration. Into specifics, Pininfarina's net financial position amounted to €185.4 million, worsened by €64.5 million as compared to the previous accounting year, with a net income of - €114.5 million which reduced shareholders' equity up to €38.9 million, from its 2006 initial value of €155 million.
To this regard, from December 2007 Pininfarina was able to achieve a moratorium negotiated with the majority of its credit institutions through which the company ceased to pay principal amounts of the medium-long term debt, with expire date on the 30th of April 2008, to which an agreement must necessarily follow for its overall debt position. The latter agreement should have found the support of an ad hoc business plan for the definition of strategic guidelines designed for the Group's turnaround, as will be seen in a while. Soon after in 2008, when the global financial crisis hit markets, the automotive sector was put on its knees and, in turn, Pininfarina fell into the downward spiral of the crisis.

Referring now to the market performance over the business decline period, it can be noticed how Pininfarina's price per share were subject to contained fluctuations until the outbreak of the crisis in 2008, which strongly affected company's already fragile condition (*Figure 4.48*). From the initial value of €24 in 2000, Pininfarina's share price declined up to €12 in 2002, due to uncertainties in the automotive sector. Indeed, the following years were characterized by a fluctuating trend, with the share price swinging between €14 and €17, until the crisis strongly hit the company, sinking shares' value to €5 at the beginning of 2008.

Figure 4.48 – Pininfarina: price per share (2005-2008). *(Morningstar)*

Crisis

The 2008 marks the worsening of Pininfarina's financial condition which has been aggravated, in the second half of the year, by the advent of a global crisis of epochal significance that has hit across all sectors of the economy. In particular, the automobile sector has been strongly affected, resulting in severe reductions in production volumes and, in addition, an even more marked distress hit the CVM sector (Contract Vehicle Manufacturers), in which Pininfarina was present in relation to its production activities. To this regard, the business condition made it necessary the company's further entry into the grey list CONSOB in July 2009.

Negotiations with the pool of banks finally led in December 2008 to the stipulation of the first financial manoeuvre provided for by the debt rescheduling agreement (*ex art. 67, co. 3, lett. d., l.f.*), which has received the support of a long-term business plan for the period 2008-2017.
In particular, the financial manoeuvre concerned shareholders' equity increase for €69.8 million, followed by the medium/long-term bank debt reduction for a total of - €241.1 million.

As concerns the debt rescheduling agreement, fully effective since December 2008, it provided:

- Leasing amounts and the long-term financing repayment to be intended from 2012, with the former having final maturity in 2014 and the latter in 2015, with interests maturing from 2012;
- Pininfarina is expected to perform mandatory early repayments through (1) collections relating to assets disposals, (2) the allocation of 75% of the excess cash flows accounted by the company in the years 2009, 2010, 2011 and (3) the allocation of 40% of any excess cash flows registered starting from 2012.

Moreover, as regards the 2008-2017 business plan on which the aforementioned agreement is based, Pininfarina followed three main guidelines:

- A new business positioning through the development and production of the electric car, expected from 2011, to be achieved by means of the joint venture with Bollorè Group;
- Continued growth in services;
- The implementation of activities aimed at the decline of productive and structural costs, with a continuous improvement of production processes. To this regard, over the years the company undertook measures such as the workforce reduction, non-strategic assets and loss-making subsidiaries divestments.

Thereafter, in 2011 Pininfarina observed a considerable delay in the development of the electric car market, a fundamental element of the 2008-2017 business plan, which, combined with the strong global competition in the provision of engineering and styling services for the automotive sector, have caused important negative effects on the Group's performance. Therefore, it was deemed necessary to modify the business plan for the new period 2012-2018, providing for: (1) the strengthening the company's engineering and styling activities, with a particular attention to the Asian market, (2) the growth of the provision of engineering services on the E-Mobility market by leveraging on the skills and know-how, (3) the growth in the enhancement of traditional art direction activities by implementing dedicated resources and brand licensing. Moreover, in 2012 Pininfarina revised its agreement with the pool of banks by providing, among others, the further rescheduling of medium/long-term debt with a 2012-2018 amortization plan and the substantial reduction of interest rates applied on total debt.

Thanks to amendments made to the debt rescheduling agreement and the definition of the new strategic guidelines envisaged by the business plan 2012-2018, Pininfarina succeeded to achieve a performance improvement from 2012, both in terms of turnover and indebtedness

position. Nevertheless, the real turning point was possible in December 2015 because of the investment agreement stipulated between Pincar, controlling shareholder of Pininfarina, and Mahindra&Mahindra Group, Indian leader in the automotive sector.
In execution of the agreement stipulated in December 2015, on the 30th of May 2016 the company Pincar in liquidation sold its entire stake held in Pininfarina (76.063%) to PF Holding, Dutch company owned by Mahindra&Mahindra Group. In addition, the agreement provided for a capital increase of a maximum amount of €26.5 million and a *new debt rescheduling agreement* between Pininfarina and its pool of banks, further supported by the *2016-2025 business plan*.

With respect to the financial manoeuvre, the debt rescheduling agreement provided for:

- The full and definitive payment at a discounted value, with the consequent write-off, of 58% of the company's debts nominal amount;
- The rescheduling of the remaining debt portion for a total of €41 million from 2025, belonging to institutions which chose to remain creditors of Pininfarina.

As regards the 2016-2025 business plan, the commercial strategies followed the business trend of the last three years, providing:

- The strengthening of the specific technical skills currently possessed in order to provide an excellent supply of "Design to Delivery" engineering services in sectors other than automotive such as transport, aerospace, architecture, real estate and consumer goods;
- The increase in available resources to constantly enhance the value of the Pininfarina brand in the automotive and non-automotive sectors, through branding or co-branding;
- The increase in economic and financial flows through the signing of a trademark license agreement with Mahindra&Mahindra concerning the use of the brands owned by the companies of the Pininfarina Group for automotive products;
- The streamlining of operational activities and their efficiency enhancement aimed at contributing significantly to the reduction of structural costs.

In the following years, the measures implemented through the agreements concluded in 2015-2016 have certainly had the desired effect, leading Pininfarina to improve both its operating performance, further reducing its debt burden. Moreover, in 2018 the company has undertaken a structural reorganization with the objective of centralizing resources management and efficiently conveying its value proposition in the two key businesses in which it operates: design and engineering services. Therefore, the Group established the Pininfarina Engineering to

which the engineering division has been conferred and, alongside, Pininfarina Extra merged by incorporation into the parent company, with the aim of fostering synergies between the automotive, transport and interior design sectors. In addition, the company's successful reorganization process made it earn the *exit from the CONSOB's surveillance in May 2019*.

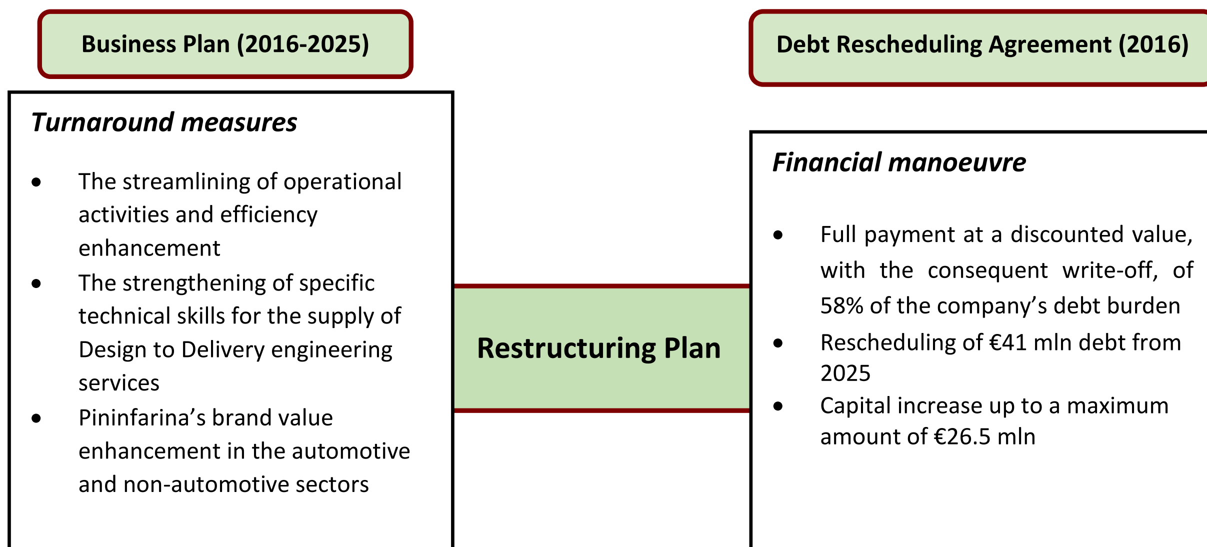


Figure 4.49 – Pininfarina: main provisions of the restructuring plan (2016-2025). *(Personal elaboration from Pininfarina website)*

Again, Pininfarina crisis evolution can be envisaged from its share price trend (*Figure 4.50*). The first relevant price decline is detected in the second half of 2008 as a consequence of the global financial crisis outbreak. Thus, the price declined from €9.2 at the beginning of the year, to €2 at the end of December. In 2009, shares' value slightly increased up to €3.4 because of the first debt rescheduling agreement entry into force. Again, the Group deemed it necessary to revise the deals previously undertaken with the pool of banks in order to extend the effects of the debt rescheduling agreement, still supported by specific business strategies. Therefore, in 2011 the price positively increased up to €4.4. In the following years, shares' value fluctuated in a range between €2 and €4, until Pininfarina embarked on the investment agreement with Mahindra&Mahindra in 2015, which were positively welcomed by the market. The deal came together with the further Group's restructuring, thanks to the implementation of the new debt rescheduling agreement in 2016, supported by the 2016-2025 business plan. Despite, share price seemed to decline again below the €2 value in 2016, due to the delayed capital increase. Thereafter, when the increase became fully effective, share value further increased until

reaching again €2 in 2017. Finally, the following years were generally characterized by limited fluctuations, until the company's performance deteriorated again in 2019 due to a substantial slowdown in the automotive sector.

Figure 4.50 – Pininfarina: price per share (2008-2019). *(Morningstar)*

As for the previous two case studies, the analysis will cover the time period 2015-2019 in order to fully capture the effects of the investment agreement occurred in 2015, followed by the last restructuring plan which entered into force in 2016.

4.4.2. Sales trend and operating profitability

With respect to Pininfarina's operating performance, its turnover pattern presents a fluctuating trend as a response to the automotive sector's progress, in which the company operates with its engineering and design services (*Figure 4.51*).

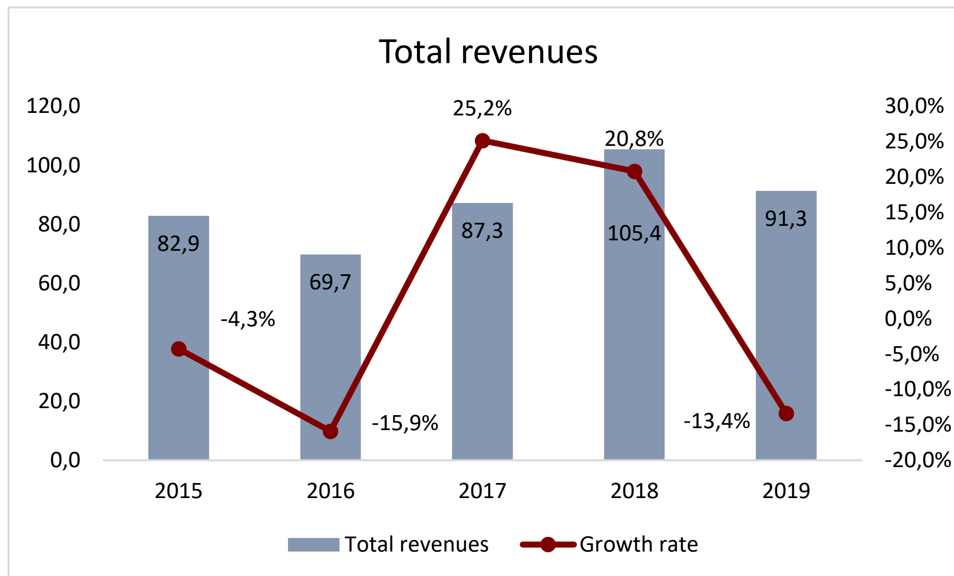


Figure 4.51 – Pininfarina: total revenues (M€) and revenues growth rate. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The first two years of analysis are subject to a severe decline in total revenues, with a particular reference to 2016 when the company accounted a growth rate of -15.9%. Thus, the downward dynamic was mainly due to the absence in 2015 of sales related to intellectual property of some concepts that had characterized the previous year, while as regards 2016, Pininfarina has been subject to the reduction in engineering services in the Italian and German sectors, with a decline also in the style and production activities of limited cars series, partially offset by the increase in license revenues of the brand.

On the other hand, the company's performance in the two-year period 2017-2018 represents a turning point compared to the previous years, showing the first positive impact of the restructuring plan undertaken for the period 2016-2025. Indeed, the Group accounted increased revenues by €17.6 million in 2017, followed by a further increase of €18.1 million in 2018. In 2017, to the growth of turnover has contributed the collection of multi-year and large orders in the field of automobile engineering services. Their duration, greater than 36 months, allowed Pininfarina to capture this positive trend also in 2018. Furthermore, the company has intensified

the diversification of its target markets, increasing orders' volume and customers portfolio in high growth markets such as the United States, China, Vietnam and India and decreasing percentage dependence on the European market already limited to less than 40% of the production value.

The positive turnover trend has been slightly haltered in 2019 when Pininfarina registered a negative growth rate of -13.4%. The negative sales course has been primarily the effect of a substantial slowdown in the automotive sector, with a particular reference to the US and Chinese markets in which Pininfarina has strengthened its presence in the last years. Moreover, the market's turbulence has negatively impacted on prices, resulting in increased competitiveness and a general reduction in margins for all operators and, in particular, for engineering service providers. Furthermore, as a consequence of specific macro-economic and political factors and due to some delays in the evolution of the orders relating to the Chinese market, few important contracts were interrupted, significantly impacting on total revenues.

From the comparison of revenues growth rate, it emerges a common trend between Pininfarina and its competitor Italdesign despite, thus, the peer company have accounted higher absolute amounts over the whole period under investigation (*Figure 4.52*). Indeed, both companies registered a strong decline in 2016 and 2019 due to the development of specific markets in which both operate, with a particular reference to the Chinese automotive sector. Instead, the main turnover difference between the two is found in 2017 because of the first positive effects of the restructuring plan adopted by Pininfarina.

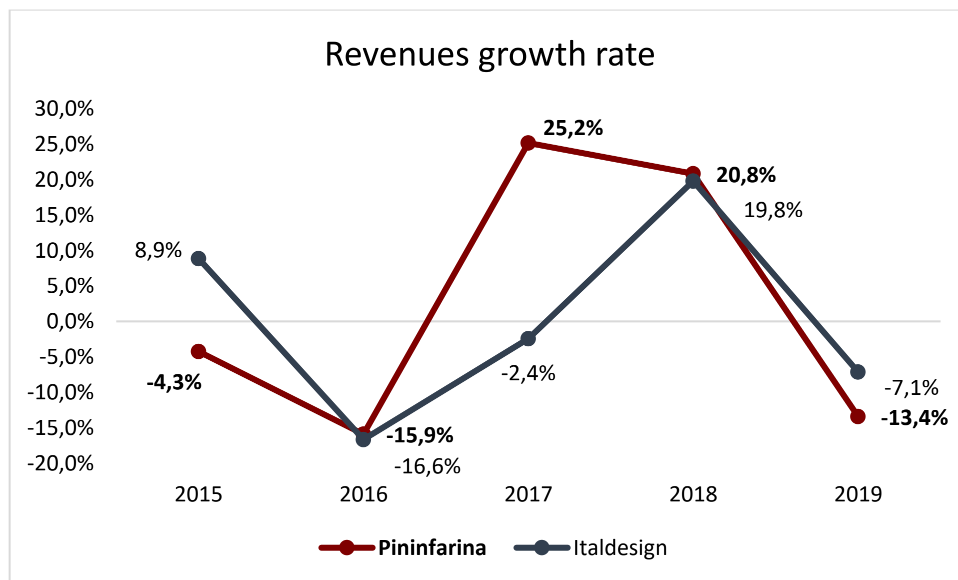


Figure 4.52 – Pininfarina: revenues growth rate comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Furthermore, a performance comparison between the two companies is also possible in terms of revenues per employee trend (*Figure 4.53*). Thus, both companies performed quite stable ratios over the considered time period, with Italdesign accounting a mean value of €202.6 thousand vis-a-vis the lower ratio of Pininfarina amounting to €138.5 thousands. Therefore, it can be assumed that the company displays a lover profitability as compared to the peer company.

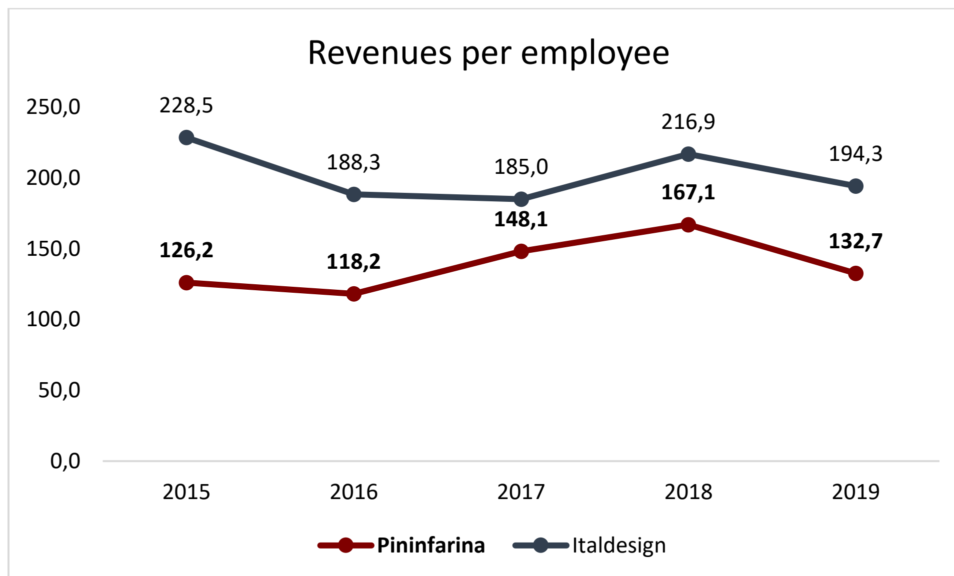


Figure 4.53 – Pininfarina: revenues per employee comparison (T€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

The analysis of the EBITDA and EBIT pattern allows to investigate not only the company's performance, but also the incidence of its cost structure over the 2015-2019 period (*Figure 4.54* and *4.55*). With respect to EBITDA trend, the reduced results achieved in 2015, 2016 and 2019 highlights the high costs incidence on total revenues. Into specifics, in the two-year period 2015-2016, expenses contributing to the operational management amounted to €81.4 million and €68.9 million, respectively, against total revenues of €82.9 million and €69.7 million, representing the rigidity of Pininfarina's cost structure in the very first years of finalization of the restructuring plan. Actually, the first two years of analysis are also burdened by high expenses incurred for the agreements of the debt rescheduling against financial institutions and the sale of the majority stake of Pininfarina to the Mahindra Group.

Indeed, in 2017 and 2018 Pininfarina achieved a better performance in terms of EBITDA. In fact, rather than attributing these results to a refinement of the cost structure, the values are related to an improvement in the profitability of the company. For instance, in 2017 and 2018

Pininfarina accounted additional operational costs for €10.6 million and €23.8 million respectively, as compared to 2016. Likewise, in 2019 the operating costs burden of the company amounted to €92.1 million, leading to a negative EBITDA of - €0.8 million. Actually, Pininfarina has been severely penalized in the last year of analysis by a contraction of markets that has caused the loss of important orders, as previously discussed.

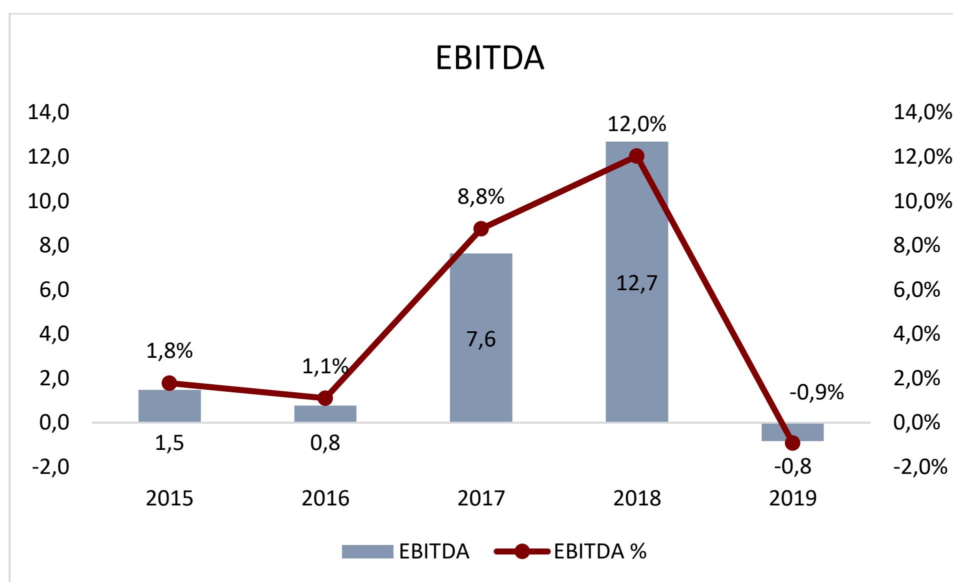


Figure 4.54 – Pininfarina: EBITDA (M€) and EBITDA%. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The results achieved in terms of EBIT confirm the negative performance of operations and, moreover, highlight an important impact of amortization and write-downs on profitability. As it is visible from *Figure 4.55*, the consideration of non-monetary costs led to the further results deterioration in the first two years of analysis and in 2019. In particular, in both 2015 and 2019 Pininfarina has incurred in tangible assets devaluation accounting for €9.5 million and €9.2 million respectively. In detail, in 2015 the company wrote down an industrial site which was put into a state of inactivity at the end of the year, in line with the provisions of the new 2016-2025 business plan. While, in 2019 the parent company has identified the existence of a trigger event related to the early termination of an industrial site's rental agreement with a potential impact on its book value and, therefore, in compliance with the dictates of IAS 36, the asset was subjected to an upfront impairment test.

On the other hand, the positive EBITDA value of €12.7 million achieved in 2018 reached a volume even lower than in 2017 in terms of EBIT (€3.8 million). This result has been further penalized by €5.3 million in receivables write-offs following a prudential provision made to a

Chinese customer to whom mainly engineering services were provided, following his difficulty in dealing with the debt.

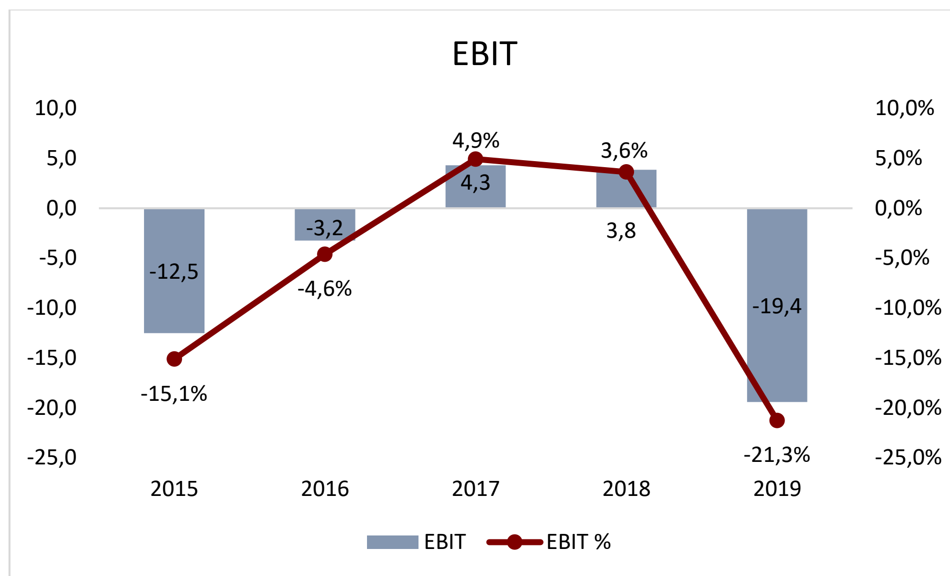


Figure 4.55 – Pininfarina: EBIT (M€) and EBIT%. (*Personal elaboration from AIDA database and Annual Financial Statements*)

From the comparison of the EBITDA margin, it further emerges the fluctuating performance of Pininfarina as compared to Italdesign (*Figure 4.56*). Thus, the competitor achieved a more stable trend over the 5-year time period because of its better operating performance and flexible cost structure which moves together with the production cycle in order to mitigate any potential demand shock. On the other hand, Pininfarina's EBITDA margin appears to be particularly subject to the automotive sector's demand, subsequently failing to adapt its cost structure to this trend. Furthermore, it can be reasonably assumed that Pininfarina did not successfully achieved the streamlining of the cost structure, as provided for by the 2016-2025 business plan.

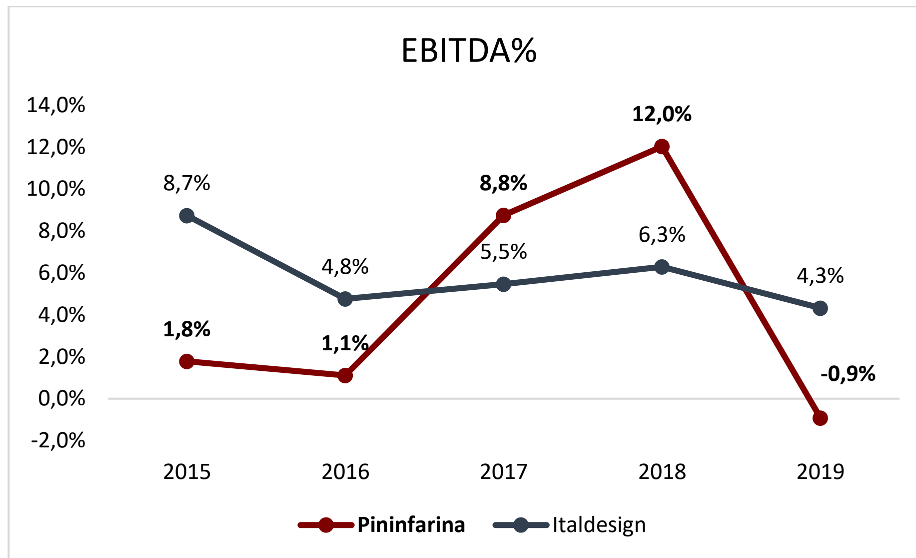


Figure 4.56 – Pininfarina: EBITDA% comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

Net income further supports the wavering results performed by Pininfarina over the 5-year analysis period (*Figure 4.57*). However, in 2016 the company accounted for €20.5 net income. Actually, this positive result was due to the substantial change in the terms relating to financial liabilities that took place during the year, resulting in the extinction of the book value of the liabilities derived before the rescheduling agreement and the recognition of the rescheduled debt at fair value. The income from extinguishing financial liabilities is generated by the positive difference between the two values, accounting for €26.5 million non-recurring and extraordinary items.

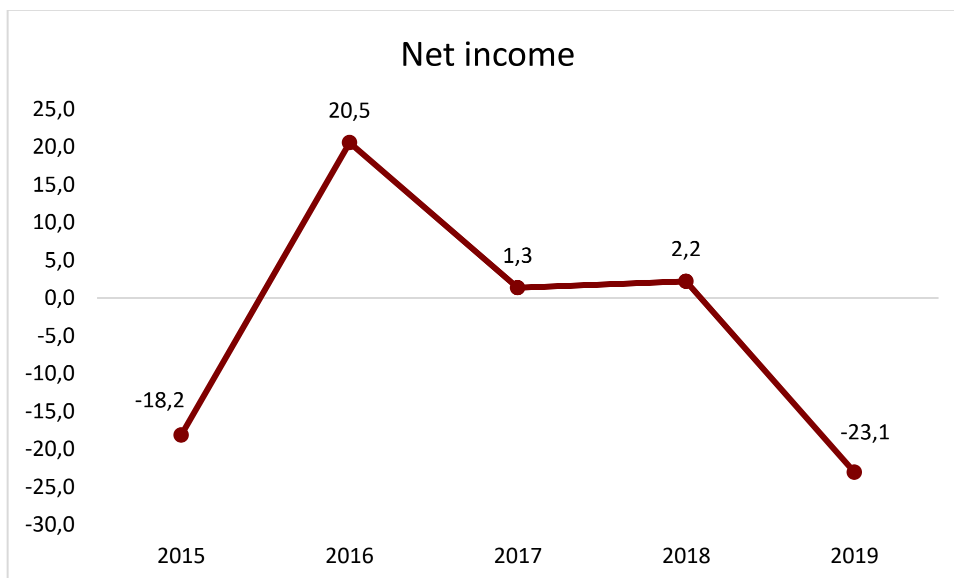


Figure 4.57 – Pininfarina: net income (M€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.4.3. Invested capital

From Pininfarina's composition of total funds invested, a certain asymmetry emerges from the partition between fixed assets, net working capital and other operating and non-operating items (*Figure 4.58*). In particular, apart from 2015 in which the company totaled 14.8% of net working capital, its weight is negligible and below 2%, representing an aspect to be explored. Thus, fixed assets represent the main component of total funds invested, feature that characterized companies operating in a capital-intensive industry as that of the automotive sector.

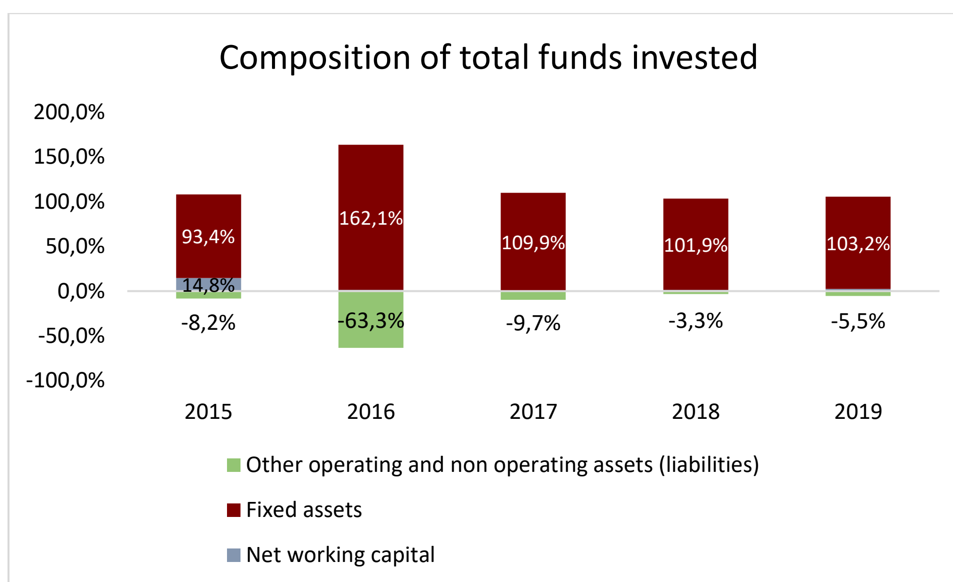


Figure 4.58 – Pininfarina: composition of total funds invested. (*Personal elaboration from AIDA database and Annual Financial Statements*)

From the investigation of Pininfarina's net working capital, a clear prevalence of trade payables and receivables emerges, compared to a low inventory value which, consequently, results in very contained volumes of net working capital in the period under examination (*Figure 4.59* and *4.60*).

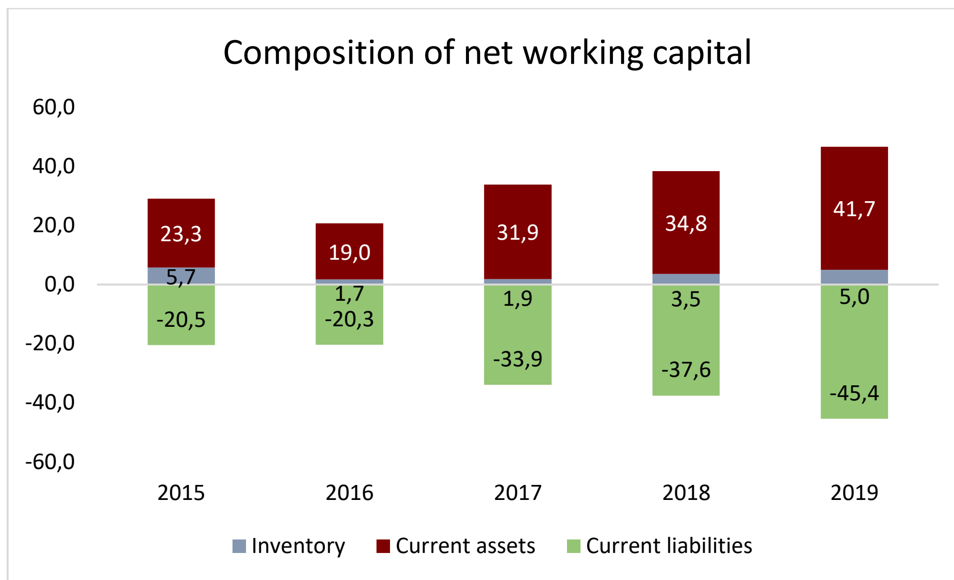


Figure 4.59 – Pininfarina: composition of net working capital. (*Personal elaboration from AIDA database and Annual Financial Statements*)

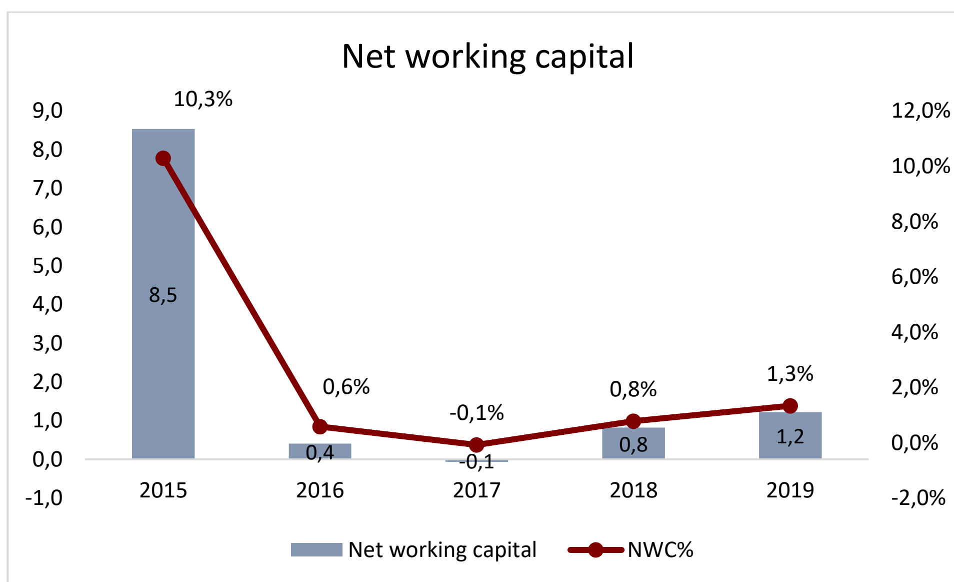


Figure 4.60 – Pininfarina: net working capital. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

Thus, apart from the €8.5 million result accounted in 2015, Pininfarina registered a mean net working capital of €0.5 million over the period 2016-2019. In addition, to better understand the extent of this result, it was deemed necessary to calculate the average net working capital also for the years of greatest financial distress 2010-2014. To this regard, the company achieved a mean value of €8 million, higher as compared to the period under analysis and, furthermore, this makes the trend in net working capital of the last 5 years more understandable.

First, as regards inventory, Pininfarina registered a mean amount of €3.6 million, with the aim of maintaining a lean warehouse management.
With respect to current assets, their increasing trend is influenced in particular by the performance of the reference automotive sector. Indeed, in 2017 the company accounted a first relevant increase in the line item. Into specifics, it concerned a €4.9 million increase in trade receivables as a result of the customers portfolio expansion and, actually, it is primarily referred to extra EU markets, with specific reference to the US and Chinese markets. Furthermore, current assets increase also included higher prepayments and accrued income for €5.8 million which had its counterpart in higher trade payables, mainly related to a consultancy contract signed as part of a multi-year engineering deal under the responsibility of the parent company, the effect of which also continued in the two subsequent financial years.
Similarly, trade payables grew between 2015 and 2019 for a total value of €23.4 million due to higher volumes of sales and the expanded customers portfolio.

Overall, it can be assumed Pininfarina's reduced net working capital is an element of internal financing which appears to be strictly linked to the improvement of company's processes, with specific reference to purchasing policies and the warehouse management, as is visible from the moderate amounts of inventory over the period under analysis. Thus, the lower the working capital, the lower the financial needs and cash absorption, and therefore a reduction in its volume can represent a real internal source of financing, allowing for a freeing up of liquid resources to be allocated to other activities. Moreover, this result is best appreciated from the analysis of the net financial position, which makes it possible to assess the sustainability of the corporate debt.

The comparison with the competitor Italdesign highlights a similar trend in net working capital, albeit on two different trajectories (*Figure 4.61*). Indeed, the peer company's structure of the short-term operational assets and liabilities is negative for each year of analysis, accounting for a mean value of - €42.7 million. Therefore, high volumes of trade payables are observable as compared to trade receivables and inventory. Under a distressed corporate circumstance, this represents a cause for concern since companies unable to obtain further access to debt resources are generally more prone to resort to other forms of indebtedness, namely trade payables. In fact, this is not the case of Italdesign which has a negative net financial position, as it will be seen in a while. Nevertheless, the competitor's position seems to be more uncertain than that of Pininfarina as, in the event of a performance shock, the company could risk to not fully honor its commercial debts if not resorting to external debt.

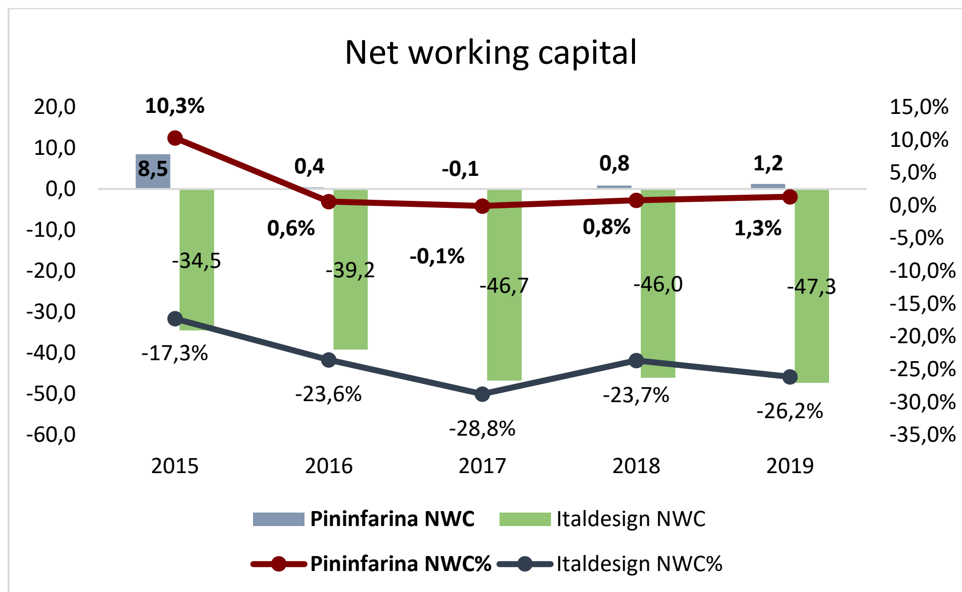


Figure 4.61 – Pininfarina: net working capital comparison. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

In addition, the path of the quick and current ratio further corroborates the thesis according to which both companies do not present issues in meeting their short-term debts, in relation to their respective current receivables (*Figure 4.62*). As regards the quick ratio, both Pininfarina and Italdesign presented a value above the critical threshold of 0.8. In particular, Pininfarina registered a mean ratio of 1.5, while the competitor accounted an average value of 1.1. Likewise, considering a critical current ratio of 1.2, both companies presented a good degree of solvency, with Pininfarina accounting for a mean ratio of 1.6 vis-à-vis the 1.2 of Italdesign. Overall, although fluctuating, Pininfarina displayed a better capacity in coping with short-term obligations as compared to the competitor.

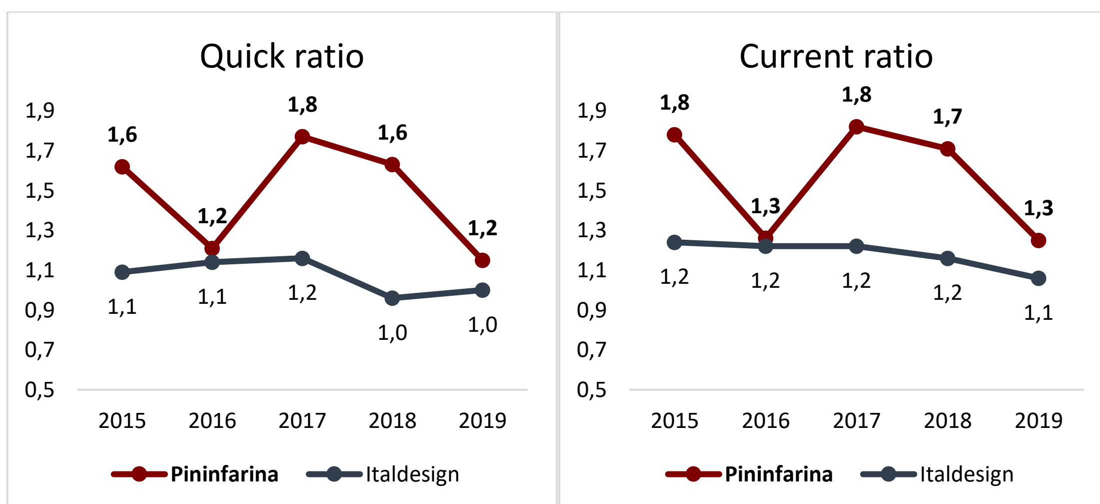


Figure 4.62 – Pininfarina: quick ratio and current ratio comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

As it can be noticed from *Table 4.4*, the clear prevalence of tangible assets reduces the graphic comprehensibility and, therefore, it was deemed necessary to provide the composition of total fixed assets in the form of a table.

('000€)	2015	2016	2017	2018	2019
Goodwill	1.043	1.043	1.043	1.043	0
Intangible assets	1.208	765	629	6.283	6.092
Tangible assets	51.382	50.110	49.557	49.979	46.266
Equity investments	323	336	349	857	854
Total operating fixed capital	53.956	52.254	51.578	58.162	53.212

Table 4.4 – Pininfarina: composition of total fixed assets. (T€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

In the first place, in 2015 total tangible assets reduced its volume by - €9.4 million as compared to 2014, due to the write-down of a facility deemed inactive at the end of the year, in line with the provisions of the new 2016-2025 business plan. This relevant initial change was followed in the subsequent years of analysis by further divestments of assets considered non-strategic, consistent with the objectives set forth by the business plan. Thus, the reduction in tangible assets appears to be contained in the period under review since, in parallel, Pininfarina has undertaken numerous strategic investments.

Indeed, the company has further pursued the objective of efficiency enhancement of operating activities also through the modernization of its plants, aimed at an increasingly innovative offer. Into specifics, in the last two years of investigation the company has undertaken a structural reorganization aimed at centralizing the management of resources, creating an adequate critical mass and efficiently conveying the value proposition in the two key businesses in which it operates: design and engineering services. To accomplish this, the company has established in 2018 Pininfarina Engineering, entirely controlled and coordinated by the parent company and to which the "Engineering" business unit and control of Pininfarina Deutschland have been conferred. Furthermore, in 2019 Pininfarina Extra has merged into the parent company with the aim of bringing together the Italian style activities in the automotive sector and those related to industrial design, architecture and more generally to brand extension into a single company, with expectations in terms of synergies and positive “contaminations” between services aimed at the various market segments.

To wrap up, it can be assumed that Pininfarina is effectively exploiting the synergies deriving from the investment agreement with Mahindra&Mahindra Group, as it is always looking for modern technological proposals in line with the trend of the automotive sector.

In addition, as compared to Italdesign, Pininfarina presents higher volumes of invested capital, both in absolute and relative terms (*Figure 4.63*). Indeed, the comparability between the two companies fails because the competitor displays a limited or negative invested capital over the 5-year period. Actually, this means Italdesign presented lower financial requirements and cash absorption. As regards Pininfarina, its structure appears more rigid than the competitor's mainly due to relevant portions of fixed assets, which slightly reduced over the years of analysis thanks to the implementation of the 2016-2025 business plan turnaround measures.

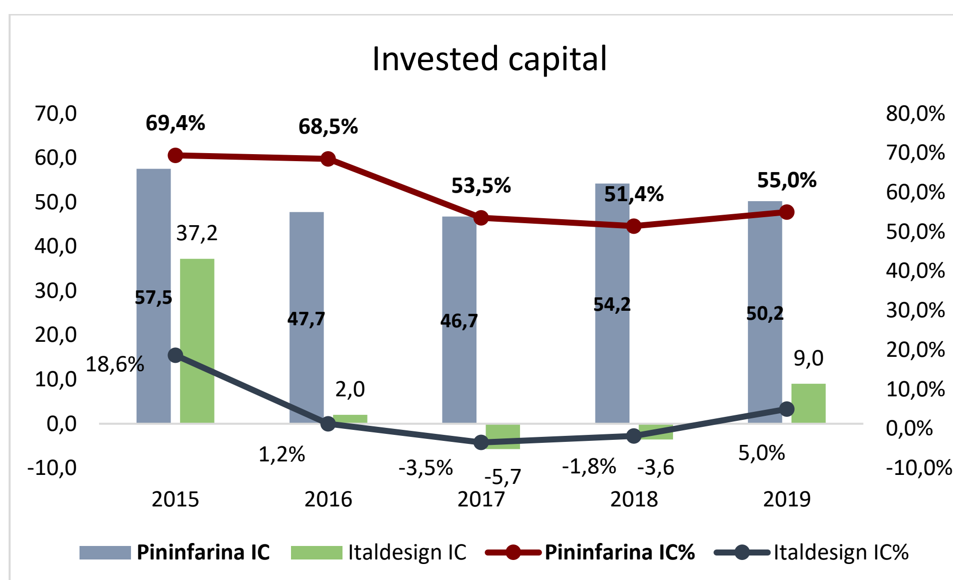


Figure 4.63 – Pininfarina: invested capital comparison (M€). (*Personal elaboration from AIDA database and Annual Financial Statements*)

As regards Pininfarina's operating profitability and efficiency in investments allocation, the ROA and ROIC trend has been analyzed also in relation to its competitor (*Figure 4.64*). At first glance, it is not possible to identify a stable trend or common to both companies as they performed fluctuating results over the 5-year period. Besides, as regards ROA, Italdesign achieved an average value of -2.7% as compared to Pininfarina which registered -4.7%. Again, as regards ROIC, the competitor performed better and, despite the negative EBIT achieved in 2016 which made non-meaningful the calculation due to the simultaneous negativity of the denominator, it accounted a mean value of 4.4%. On the other hand, the performance of Pininfarina has been generally negative, with an average ROIC of – 7.3%.

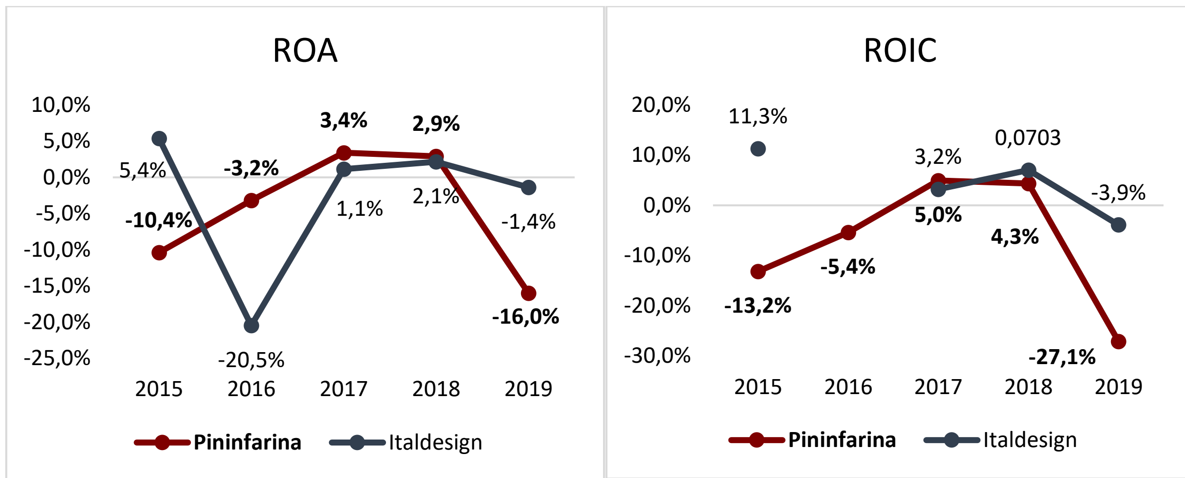


Figure 4.64 – Pininfarina: ROA and ROIC comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.4.4. Capital structure

Pininfarina's capital structure appears asymmetric and variable in its partition between shareholders' equity and net financial position over the 2015-2019 investigation period (*Figure 4.65*). Thus, as will be discussed in a while, this trend is the result of the financial manoeuvre provided for in the debt rescheduling agreement (*ex art. 67, co. 3, lett. d, l.f.*) and the restructuring plan, which entered into force in 2016 and impacted both on the indebtedness level and share capital.

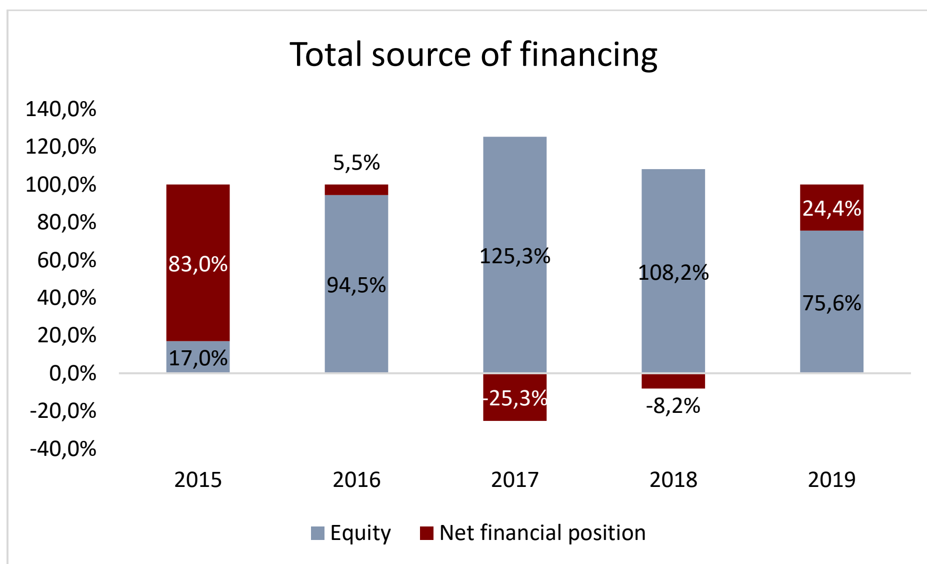


Figure 4.65 – Pininfarina: total source of financing composition. (*Personal elaboration from AIDA database and Annual Financial Statements*)

The composition of shareholders' equity has been mainly subject to the impact of Pininfarina's performance, in terms of net income, the financial manoeuvre at the basis of the 2016-2025 restructuring plan and the debt rescheduling agreement, the latter two fully effective since 2016 (*Table 4.5*).

At a first glance, 2016 displayed an increased equity by €20.6 million as a result of the net income, arising from extraordinary and non-recurring items derived from the first application of the debt rescheduling agreement. Afterwards, in July 2017 Pininfarina's shareholders' capital further raised reflecting the €26.5 million share capital increase, provided for by the financial manoeuvre. Into specifics, approximately 24 million shares were subscribed for a nominal value of €1.1, of which €0.1 in share premium. In this regard, PF Holdings (Dutch company owned by Mahindra&Mahindra Group) has contributed for €20.2 million, maintaining its position as a majority shareholder for 76.15%. Thus, in subsequent years, shareholders' equity has been mainly influenced by the company's performance in terms of net income and, as a result, the equity volume has been strongly reduced in 2019 by the considerable loss of - €23.1 million.

('000€)	**2015**	**2016**	**2017**	**2018**	**2019**
Net income	-18.169	20.531	1.312	2.173	-23.075
Share capital	30.150	30.150	54.271	54.271	54.271
Reserves	-2.153	-20.219	3.220	5.305	7.806
Shareholders' equity	**9.828**	**30.462**	**58.803**	**61.749**	**39.002**

Table 4.5 – Pininfarina: composition of shareholders' equity. (T€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

As regards the composition of net financial position, it strongly reflected the impact of the debt rescheduling agreement which, effective from 2016, contributed to Pininfarina's turnaround process together with the 2016-2025 business plan.

As visible from *Figure 4.66*, from 2016 onwards there was an actual improvement in the net indebtedness position of the company and, furthermore, the composition of short-term debt, long-term debt and liquidity acquires greater balance in the period under review. Into specifics, in May 2016 the effectiveness of the aforementioned agreement entailed the write down of 56.7% of exposures' nominal value amounting to €32.1 million and relating to financial institutions which participated to the agreement's provisions. Instead, the remaining debt portion has been rescheduled between 2016 and 2025. Therefore, the effects of the agreement led to the net financial position reduction from €47.9 million to €1.8 million in 2016.

In addition, as displayed in *Figure 4.67*, the relevant decline occurred in terms of net financial position also had a visible impact in terms of NFP/EBITDA ratio. Thus, Pininfarina's trend appears declining because of both the reduced level of indebtedness and the fluctuating pattern of EBITDA. Indeed, from an initial high ratio of 32.4x in 2015, the company registered strongly declined NFP/EBITDA values, until reaching the negative value of -15x due to the deterioration of Pininfarina's operating performance.

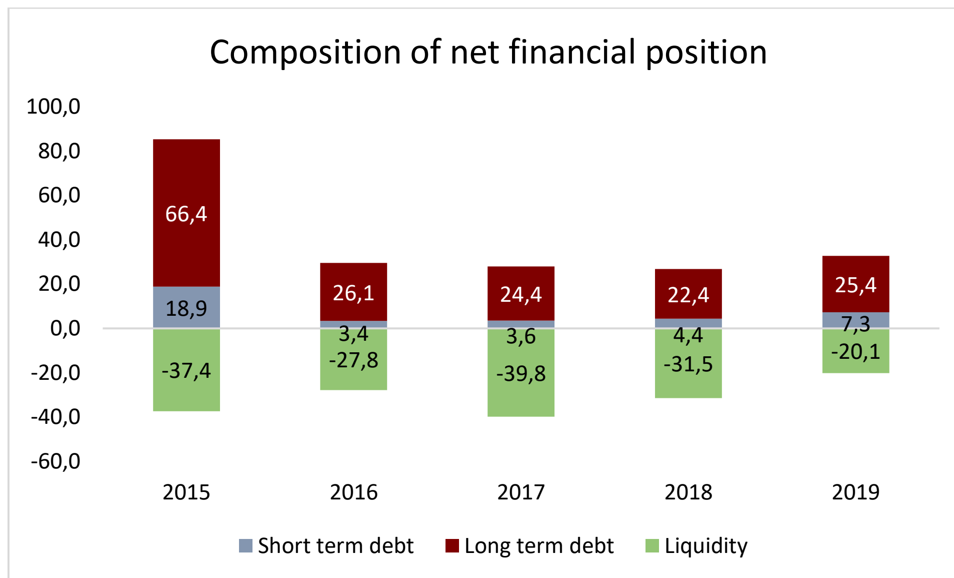


Figure 4.66 – Pininfarina: net financial position composition. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

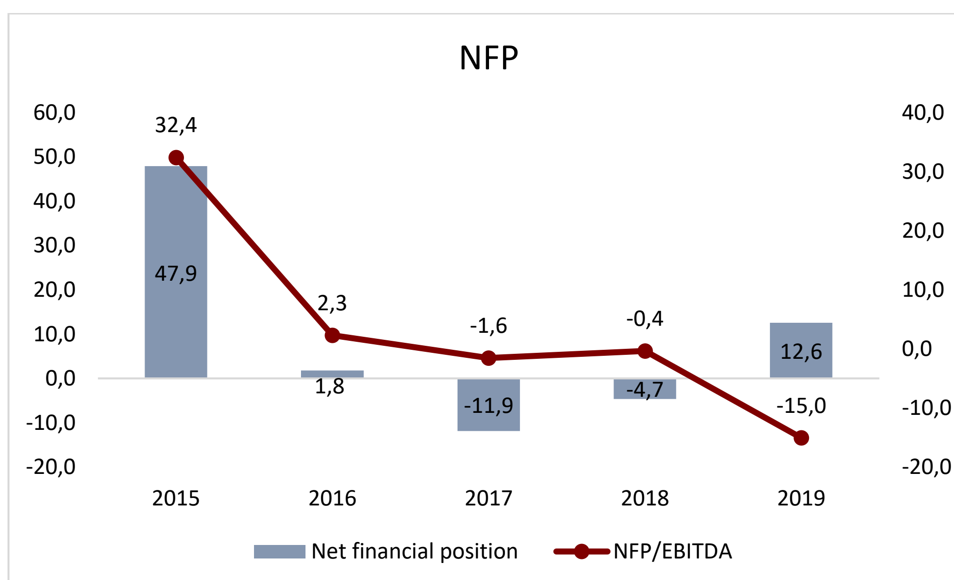


Figure 4.67 – Pininfarina: net financial position. (M€) (*Personal elaboration from AIDA database and Annual Financial Statements*)

Finally, from the comparison of Pininfarina with its competitor, it is possible to draw considerations in relation to its debt structure and its ability to manage its financial position (*Figure 4.68*). As regards NFP/EBITDA ratio, a common pattern can be envisaged between the two companies in relation to 2016-2018 period. In particular, Italdesign accounted for a negative mean ratio of -2.8x because of its net financial position, characterized by a limited amount of debt. On the other hand, without considering the outlier ratio of 2015, which was a feature of the pre-debt agreement period, Pininfarina achieved an improvement in its NFP/EBITDA which performed an average value of -5.7x in the period 2016-2019, strongly affected by the negative operating performance of the last year of investigation.

Referring now to the interest coverage ratio, its comparability is limited because of the better performance of Italdesign both in terms of operating performance and interest expenses burden. Nevertheless, the interest coverage ratio turns out to be a matter of concern for Pininfarina. Thus, it displayed a mean value of 1.7x over the period under analysis, meaning that the EBITDA volume is almost enough to just cover the company's interest burden. In fact, considering the two-year period 2017-2018, the performance of the company in terms of EBITDA/interest expenses seemed improved, accounting for 3.4x and 5.2x respectively, but in 2019 the deterioration of the EBITDA result overturned this achievement.

Therefore, it can be assumed that, despite the positive effect achieved through the implementation of the debt rescheduling agreement, Pininfarina could find itself in difficulty in the face of demand shocks, thus failing to fully honor the payment of financial charges.

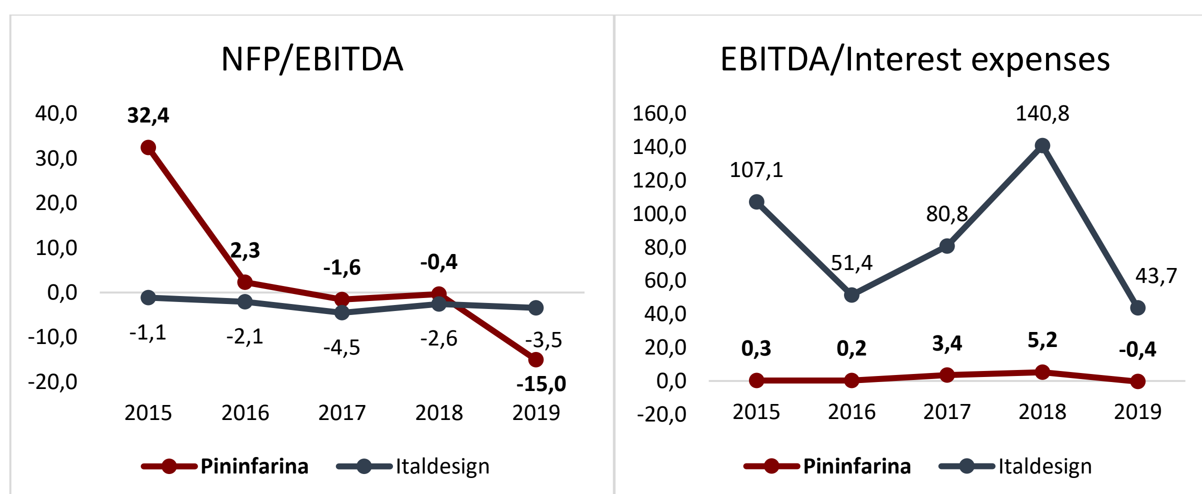


Figure 4.68 – Pininfarina: NFP/EBITDA and interest coverage ratio comparison. (*Personal elaboration from AIDA database and Annual Financial Statements*)

4.4.5. Market capitalization

The investigation of Pininfarina's performance from the overall market perspective reflects the downward spiral of the crisis and its recovery path (*Figure 4.69*). In 2015, the company's capitalization amounted to €111.6 million and was the result of investors' positive perception in relation to the definition of different agreements which took place in the second half of the year, namely the investment agreement between Pininfarina and the Mahindra&Mahindra Group, the ongoing negotiations for the debt rescheduling agreement, the future capital increase and the business plan, already prepared in 2015 but relating to the period 2016- 2025. Thus, the positive trend is also visible from the high P/B ratio amounting to 11.4x. In fact, more than reflecting the actual value of the company, it is strongly influenced by the lower equity's book value and, actually, incorporates future positive expectations on Pininfarina's profitability and recovery. As visible, in 2016 the company's market capitalization suffered a slight inflection because of both reduced volumes of affairs and the still not subscribed capital increase, reaching a lower P/B value of 1.7x. Afterwards, in 2017 and 2018 the dynamic of Pininfarina's market capitalization reflected the positive impact of share capital increase, occurred in 2017, and the improvement of its operating profitability. Finally, the company's perceived value decreased again in 2019, up to €88.6 million, due to a deterioration in performance which, as seen, was the effect of the automotive sector's slowdown, with a particular reference to the US and Chinese markets in which Pininfarina has strengthened its presence in the last years. The path is reflected also on the 2.3x P/B ratio which is the result of the reduced shareholders' equity caused by the - €23.1 million income loss.

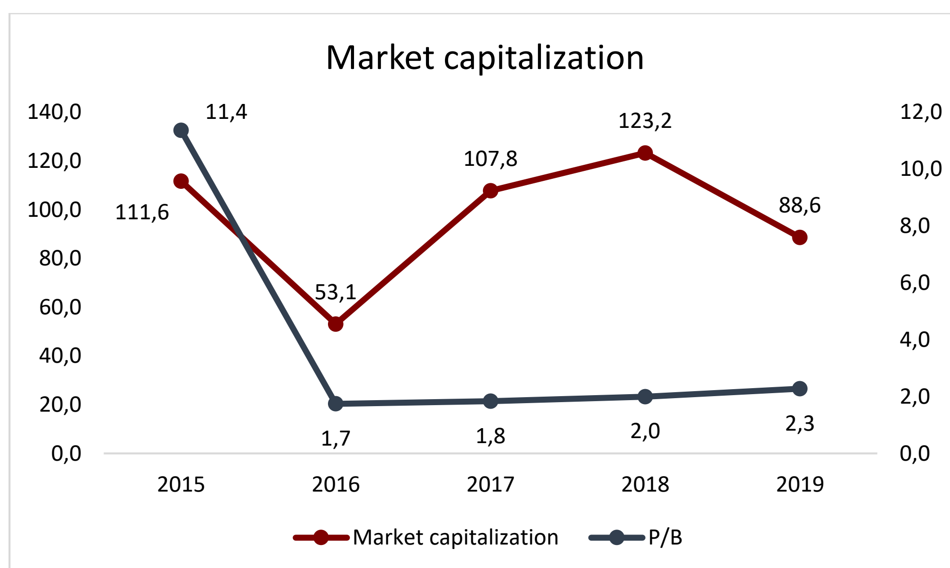


Figure 4.69 – Pininfarina: market capitalization (M€) and P/B comparison. (*Personal elaboration from AIDA database and Thomson Reuters Eikon*)

4.4.6. Current developments

2020 has been characterized by major uncertainties for almost each sector of the market but, among others, the automotive one has been severely affected by the outbreak of the covid-19 pandemic. In particular, the first nine months of the year showed a negative market trend characterized by the decline in orders, prices and margins, and Pininfarina experienced different situations depending on the service rendered. Thus, while activities such as style, architecture or industrial design have substantially maintained the expected performance, Pininfarina Engineering has suffered the worst repercussions, showing a decrease in activities of more than 30% compared to 2019, further confirming the difficulties of contracting initiatives with volumes and margins adequate to the cost structure and, following the progressive deterioration in the economic and financial performance of the company, future income prospects were lacking. In this regard, in October 2020 the shareholders' meeting approved the liquidation of the company and, in the following month, the collective dismissal procedure for termination of activity began involving 135 employees. Indeed, this decision is in line with the process of rationalization and simplification of the Pininfarina Group's corporate structure, necessary for the purpose of maintaining the business continuity.

Furthermore, the company's financial management is carefully monitored and does not seem critical at the moment but, in spite of this, Pininfarina has decided to strengthen its financial capacity by stipulating in February 2020 a financing agreement with the Mahindra&Mahindra Group, amounting to €20 million. To this regard, the company has continued and still continues, without particular cash strains, to meet its obligations including those relating to the ongoing debt rescheduling agreement (2016-2025) with some credit institutions.
Subsequently, on the 13th of November 2020, PF Holdings expressed the commitment to (i) pay off the financial investment of €20 million granted to the company, which has not been used and (ii) provide financial resources to Pininfarina for an equivalent amount by way of payment for a future irrevocable capital increase, to carried out by the 27th of November 2020.

Nonetheless, Pininfarina has prepared suitable turnaround measures for the limitation of operating cash flow absorption and costs containment such as:

- The intensification of commercial contacts with current and potential customers, also exploiting the web potential;
- The greater use of outsourcing, where possible, in all business segments, using external resources to cover the expected increase in volumes, with a significant reduction in average production costs;

- The contractual application of the down payment, in order to make the trend of financial inflows and outflows more balanced;
- The cost structure reorganization and simplification of processes, also through the reduction of manpower (direct and indirect), considered in excess of the potential of the current market and in the medium-term.

Referring now to the latest available financial statements, namely the interim statements of September, it is interesting to briefly compare the performance of Pininfarina in 2020 with respect to the results of the same period of 2019. As regards its operating performance, the overall production value decreased by -28%, compared to the data of September 2019, with a -23% decrease in the style sector while the engineering sector decreased by -35%. In particular, Pininfarina achieved - €6.2 million in EBITDA, severely reduced as compared to the previous year's result of €0.2 million.
With respect to its net financial position, the company registered a worsening reaching the volume of €16.8 million, increased by €4.8 million as compared to the previous year, because of both reduced liquidity and increased indebtedness.

Pininfarina's price per share trend fully reflects the uncertainties of the last year (*Figure 4.70*). Into specifics, from the January 2020 price of €1.6 per share, the value dropped to a peak in March on the occasion of the Italian lockdown announcement. Thus, Pinifarina's shares registered a price of €0.93, the lowest ever displayed in the history of the company.
In the following months the price started to rise again, albeit in a very limited way, showing a first positive signal in June due to optimistic future outlooks, thus remaining in a range between €1.15 and €1.4, however, failing to go back to pre-covid levels.
Furthermore, the announcement regarding the Pininfarina Engineering liquidation, which took place at the beginning of November, again negatively impacted the share price. In particular, it fell to a value of €0.94, except to recover in the days immediately following the commitment of PF Holdings to pay off the financial investment of €20 million, previously granted to Pininfarina, and provide financial resources for an equivalent amount by way of payment for a near future irrevocable capital increase. Indeed, this news was positively welcomed by the market, leading to a share price of €1.1.

Figure 4.70 – Pininfarina: price per share 2019 to date. *(Morningstar)*

4.4.7. Considerations on the case study

The Pininfarina case study is quite interesting for its prolonged financial distress and the mechanisms which have been adopted for the crisis resolution which, actually, is still ongoing. The company's decline begun just before the 2008 global crisis broke out and was the result of an uncertain macroeconomic trend which impacted on the automotive sector too. Actually, at the beginning of 2000s, Pininfarina pursued expansionary business initiatives and investments which, in turn, led it to suffer the slowdown of its reference sector due to the high indebtedness position. To this regard, the company achieved its first negative results in 2005 as a consequence of the delay in few orders' departure, the complete renewal of the production range, which burdened the cost structure and the net financial position.

Afterwards, when the global crisis hit, Pininfarina's financial position severely deteriorated and the company underwent the CONSOB surveillance with the entrance into the grey list in July 2009. To this regard, Pininfarina promptly intervened and negotiated with its reference pool of banks the stipulation of its first debt rescheduling agreement (*ex art. 67, co. 3, lett. d., l.f.*), fully effective since December 2008. Thus, the financial manoeuvre provided for, was further supported by a long-term business plan for the period 2008-2017.

Briefly, it concerned shareholders' equity increase for €69.8 million, followed by the medium/long-term bank debt reduction for a total of - €241.1 million and the repayment of leasing amounts and the long-term financing to be intended from 2012.
As regards the 2008-2017 business plan, it entailed a new business positioning through the development and production of the electric car, a continued growth in services and the streamline of production processes, aiming at the reduction of operating and structural costs.

When in 2011 Pininfarina observed a considerable delay in the electric car's development together with a strong competition in the provision of engineering and styling services, it was deemed necessary to modify its business plan for the new period 2012-2018. Indeed, among others, the company decided to strengthen its presence abroad, with a particular attention to the US and Chinese automotive markets. In addition, the Group also revised the agreement with banks, providing for the further rescheduling of the medium/long-term debt.

The following years have been characterized by gradual improvements for Pininfarina, which succeeded to achieve from 2012 better results both in terms of turnover and indebtedness position. Actually, the real turning point was possible in December 2015 because of the investment agreement stipulated between Pincar, controlling shareholder of Pininfarina, and Mahindra&Mahindra Group, Indian leader in the automotive sector. Into specifics, in May 2016, the company Pincar in liquidation sold its entire stake held in Pininfarina (76.063%) to PF Holding, Dutch company owned by Mahindra&Mahindra Group and, in addition, the agreement provided for €26.5 million of capital increase and a new debt rescheduling agreement, further supported by the 2016-2025 business plan. With respect to the financial manoeuvre, the agreement with the pool of banks provided for the write down of 56.7% of exposures' nominal value (€32.1 million) and the rescheduling of the remaining debt portion from 2025.

In the following years, the turnaround measures implemented have certainly had the desired effect, improving Pininfarina's operating performance and further reducing its debt burden, therefore managing to exit from the CONSOB's surveillance in May 2019.
Besides, its uncertain performance of 2019 further worsened in 2020 because of the covid-19 pandemic outbreak, as previously discussed, which led PF Holdings to provide capital injection for a total amount of €20 million.

As regards turnaround measures undertaken so far and taking into consideration results obtained over the last 5 years of analysis, we can reasonably assume that _Pininfarina has not overcome financial distress yet_, despite few improvements have been achieved over the years:

- ☑ ***Pininfarina managed to reduce its net financial position***

  From the initial net financial position of €47.9 million accounted in 2015, the company has been able to strongly reduce its debt burden over the years, achieving a value of €12.6 in 2019. Into specifics, the debt rescheduling agreement undertaken in 2016 with the pool of banks has granted a noticeable improvement in Pininfarina's net debt which has been written down by €32.1 million and rescheduled for the remaining portion.
- ☑ ***Pininfarina managed to undertake a structural reorganization***

  In 2018, the company has undertaken measures aimed at reorganizing its business structure in order to centralize the management of resources and to efficiently convey its value proposition in terms of design and engineering services. In this regard, Pininfarina Engineering has been established under the coordination of the parent company. Moreover, Pininfarina Extra has merged into the parent company with the aim of fostering synergies between the automotive, transport and interior design sectors, through the creation of a single creative department for the Pininfarina Group.
- ☑/☒ ***Pininfarina did not actually reorganize its cost structure***

  Thus, no real reduction in operating costs was found during the years of analysis. In particular, as regards personnel expenses, the company has registered a slight decline during the first three years of investigation (2015-2017), accounting for €47.7 million in 2015 as compared to the reduced volume of €44.6 in 2017. On the other hand, in 2018 and 2019 Pininfarina displayed increased expenses amounting to €50 million and €54.9 million respectively. Thus, the increase is to be considered due to the structural reorganization that took place during the period, as described above, which led to an expansion of the workforce. Furthermore, as regards raw materials, consumables and goods expenses and structural costs, their path registered a fluctuating trend which followed the customers demand movements, without showing a clear decline.

Overall, the Pininfarina case study represents a distressed company which has not fully recovered yet. In particular, it has been through a prolonged period of crisis, which has extended approximately from 2008, year of its first debt rescheduling agreement, until to date. Besides, Pininfarina has not been exempt from periods characterized by better performance. Thus, a sign of slight improvement has been first detected in 2012 when the company, following few years of income losses, has accounted positive results in terms of net income, increased shareholders'

equity and improved net financial position, as a consequence of the growing market demand. In fact, the apparent improvement did not last long because, soon after, Pininfarina found again in the position to deal with reduced revenue volumes and operating losses.

Indeed, the actual turning point of this long story of crisis has been the investment agreement the company signed in December 2015 with the Mahindra Group. Thus, the two companies met halfway: Pininfarina was looking for a firm which could inject new resources in order to save it from the crisis, while the Mahindra Group agreed an acquisition that allowed it to have access to the prestigious made in Italy design, namely the competitive advantage of Pininfarina. On balance, this deal has been advantageous for both companies and has been an ideal condition for the generation of synergies. Into specifics, Pininfarina has managed not only to improve its performance both in terms of debt burden and operating results, but has also pursued an expansionary policy towards foreign markets, such as US and China.
To wrap up, Pininarina's overall condition appears anything but stable. Actually, over the period under investigation, it has achieved both a reduced net financial position and a business reorganization which has allowed the group to better focus on its core activities. Nevertheless, its cost structure is still rigid as, following a fluctuating demand such that of the automotive sector, does not seem to adapt to the orders' volume change resulting, therefore, in negative operating results. Although Pininfarina can count on the financial support of the Mahindra Group, the company needs to set forth new strategic objectives in order to pursue a lean structure, without overlooking its defendable market position and competitive advantage, namely the luxury and design of the made in Italy.

SUMMARY AND CONCLUSIONS

Corporate financial distress and business restructuring process have become a familiar economic reality to many corporations worldwide, thus confronting companies' management with the challenging task of defining a proper turnaround plan. Besides, an early identification of decline signals is key in avoiding the outbreak into the pathological stage of the crisis phenomenon. To this regard, many scholars have tried to investigate the facets of corporate distress, agreeing that it is generally possible to distinguish between an initial decline phase, which represents a relatively physiological passage of the life of a firm (Sirleo 2009), and the crisis stage, namely the degeneration of the corporate decay into a harmful economic value destruction. Indeed, distressed companies share common features such as stagnant revenues, shrinking margins and an overwhelming financial position (Damodaran 2009).
Whenever the company's decay is not promptly detected and the firm is not restored to health, the value of activities may appear insufficient to guarantee debt reimbursements and the initial decline could quickly escalate into a financial downturn condition. Either way, it is not an easy task to precisely understand which have been the underlying causes of distress manifestation. Although there is a common distinction between internal and external causes, in practice, a chain of interrelated multiple causal factors can be identified in most situations (Slatter & Lovett 1999). Indeed, what is certain it that the firm's analysis must be conducted adopting both a micro-economic and a macro-economic approach in light of the dialectic between the external and internal organizational environment.

When the first imbalances occur, what discriminates a distressed company which survives from one which results in liquidation is flexibility, namely the ability of the governing body to detect the warning signs of decline or crisis and quickly adapt and reallocate resources in response to internal changes in efficiency (Fedele & Antenucci 2015). Into specifics, scholars identify four main methods and, thus, distinguish between methods based on intuition, ratio analysis, models and capital markets. Intuition relies on the external recognition of symptoms of decay and imbalances, visible in different degrees to the overall group of stakeholders, while ratio analysis has its roots in the investigation of the main measures of value of financial statements, generally carried out in the span of several years. On the other hand, methods based on models and capital markets try to assess the company's probability of default through the implementation of econometric models.

By the time the corporate distress manifest itself in terms of performance and income deterioration, it becomes imperative to pinpoint and adopt the most suitable solution to deal with the crisis and preserve the business continuity. First, the choice standing in front of the company falls between corporate turnaround and liquidation. Thus, the enforcement of turnaround measures requires the firm's going concern value to be substantially higher than its liquidation value, otherwise the business is not viable anymore and sell-off represents the optimal solution. Secondly, the corporate turnaround decision comes down to an out-of-court or an in-court restructuring. In particular, the latter entails the formal supervision of the bankruptcy court, while the former is also known as a private mechanism, lacking therefore of a formal monitoring. To this regard, the common content taxonomy adopted illustrates four main macro categories of out-of-court strategies: managerial, operational, portfolio and financial restructuring (Schweizer & Nienhaus 2017). Managerial restructuring entails the replacement of the top management team and/or the chief executive officer. Indeed, structural downsizing and layoffs represent an operational restructuring strategy. Portfolio restructuring encompasses strategic activities concerning the company's portfolio reorganization with a view to better manage resources through divesture and acquisition transactions, while financial restructuring is characterized by capital injection, debt rescheduling or refinancing, and dividends cut or omission.

Often times, when the company is in a context of severe financial distress, the juridical environment in which it operates should provide adequate tools to preserve the business going concern value and protect creditors. In this context, the Italian insolvency framework, based on the Royal Decree no. 267 of 16 March 1942, ensures a good level of completeness and detail, with instruments characterized by an increasing degree of intervention of the legislator, depending on the severity of each individual case (Stanghellini 2015). Indeed, alongside bankruptcy procedures, the Italian legislator has provided for the possibility of adopting more flexible tools with a lower level of procedural formalities, as long as the company is pre-insolvent, namely contractual and quasi-contractual agreements: certificate plans (*ex art. 67, co. 3, lett. d, l.f.*), debt restructuring agreements (*ex art. 182-bis, l. f.*) and compositions with creditors (*ex art. 160, l. f.)*. Thus, the priority of the Italian legislator seems to be the safeguard of business continuity and the simultaneous protection of creditors.

To this regard, Banca d'Italia and CONSOB are the main institutions invested with the supervisory authority on markets and financial intermediaries, with the aim of ensuring a certain transparency of information. In particular, CONSOB carries out its role by making use of two specific tools: the black and the grey lists. The inclusion in these "watch lists" entails the

provision of periodical addition information, namely monthly or quarterly, which is triggered by the opinion of auditors based on financial statements of listed companies in distress (*ex art. 114, T.U.F.*).
In this context, the investigation preparatory to the empirical analysis starts from the overview of companies subject to CONSOB's monitoring between 2009 and 2020. In this period, 88 firms listed on the MTA of Borsa Italiana, of which 50 have left the black and the grey lists, have been subject to periodical additional information, either monthly or quarterly. Into specifics, 48% have been liquidated as a consequence of their inability to overcome the crisis, most of whom are concentrated in the period between 2013-2015. Actually, it can be reasonably assumed that these companies implemented inadequate or delayed turnaround measures with respect to the onset of the first signals of decline and the ongoing economic crisis. Furthermore, between 2009 up to date, 14 companies carried out winning turnaround strategies capable of improving their financial and economic condition, leaving the CONSOB supervision, while the remaining portion exited from surveillance lists due to their delisting from the regulated market. In addition, with regard to the main characteristics concerning the two "watch lists" at the time this dissertation has been elaborated, it emerges a worse performance in relation to blacklisted companies, both in terms of operating results and indebtedness position. Thus, although the sample is not large enough to detect a specific pattern, firms in the grey list reported generally positive EBITDA and, on average, better results in terms of quick ratio and total debt/EBITDA, denoting an higher ability to cope with short-term obligations as compared to blacklisted companies.

At this point, the dissertation got to the heart of the empirical analysis by selecting three interesting case studies, namely one of the black list, one of the grey list and one currently recovered and out of surveillance, with the aim of investigating what unites and what distinguishes the turnaround measures adopted by the companies over a 5-year period (2015-2019). Into specifics, each case has been separately investigated with respect to causes originating the company's downturn and the respective restructuring plans adopted. To this regard, the focus was placed on the most recently introduced restructuring measures in order to highlight their impact in terms of profitability, characteristics of total funds invested and the firm's capital structure evolution, all comparing the main measures of value with an adequate peer company.

The first company to be investigated is Zucchi, Italian leader in the household linen sector. Its decline established its roots at the beginning of the 2000s, when Zucchi found itself facing the consequences of its rigid cost structure deriving from acquisitions previously made. Hence, the

firm's structural issues together with delayed outsourcing of costly process phases, as compared to its competitors, and the slowdown of the household linen market led to the manifestation of the first negative result in 2004. Therefore, when the global crisis hit, the clear worsening of the firm's condition and the financial difficulties in meeting its obligations, led to CONSOB's intervention and the consequent Zucchi's inclusion under the black list in 2010.
As response, the company developed three debt restructuring agreements (*ex art. 182-bis, l.f.*), of which the first two, namely the 2011 and 2013 agreements, failed because of a too myopic view of business prospects. On the other hand, the third debt restructuring agreement, supported by the 2015-2020 business plan, led to a successful conclusion. In detail, the financial manoeuvre entailed: (1) the establishment of an SPV to which transferring the business branch constituted by €30 million debt and specific properties, (2) a debt waiver of €49.6 million by the lending banks and (3) a share capital increase of €10 million. Finally, despite the objective difficulties that hit the markets in 2020 because of the covid-19 pandemic, Zucchi managed to early conclude the debt restructuring deal in October 2020 thanks to a refinancing agreement undertaken by DeA Capital Alternative Funds SGR and Illimity Bank.
On the basis of the last five years of analysis, it can be reasonably assumed Zucchi achieved a certain stability following more than ten years of distress. In particular, the company managed to streamline its cost structure, accounting total operating costs reduced by -37.4% in 2019, as compared to 2015, with a further net improvement in EBITDA. To this regard, Zucchi's operating performance has been accomplished thanks to a proper implementation of the 2015-2020 business plan, which led to the integration of its two main brands, the simplification of the line of products offered, the disposal of non-strategic assets and the closure of 18 stores operating at loss. As regards its shareholders' equity, namely one of the company's weak spot, the €10 million contribution received has helped the recovery, but the complete u-turn, however, has been achieved thanks to the refinancing operation and the termination of the debt restructuring agreement. In addition, its net financial position reduction was made possible by the debt waiver performed in 2020, which led to a - €55.6 million decline in September 2020 as compared to December 2019. Overall, the analysis conducted on the basis of the operations undertaken by Zucchi in 2015 and completed, in relation to the financial manoeuvre, in 2020, allows to assess the success of the turnaround process undertaken by the company. Following the long crisis development, it can be assumed that these first positive results require ulterior efforts in order not only to be maintained, but to carry in a reasonable future to the company's growth. Therefore, Zucchi must be able to maintain a lean structure without forgetting innovation and the strong push of the market towards online channels.

The second case under investigation has been that of Beghelli, a company operating in the lighting sector. Its first timid signs of decline showed shortly before 2008, following a general contraction in economies, which further deteriorated when the global financial crisis hit. Nevertheless, the company did not appear disarmed and decided to act promptly by adopting measures aimed at the maintenance of a strong position in its reference sector, while streamlining its cost structure. Actually, when the sovereign debt crisis came to an end, Beghelli had to face a severe liquidity constraint in 2012, leading to its inclusion in the black list a year later. In this respect, three have been the main causes: (1) changes in the regulatory framework of the photovoltaic sector, (2) sales contraction volumes, (3) unforeseen contractual and bureaucratic issues related to the divestment of its Chinese subsidiary. As a consequence, the company approved the 2013-2018 business plan together with a debt rescheduling agreement (*ex art. 67, co. 3, let. d, l.f.*), fully effective from 2014. It entailed the confirmation of the short-term credit lines, the moratorium on medium/long-term loan capital instalments and rescheduling of the real estate leases payments. Indeed, when in 2015 Beghelli exceeded performance expectations, it shifted towards the grey list CONSOB and, the following year, the debt rescheduling agreement has been early resolute with the grant of €40 million in unsecured financing. Conversely, what happened in the last two years of analysis until now has been a strong deterioration of Beghelli's performance, initiated in 2018 as a consequence of the unsatisfactory market response to its new products launches.
According to the analysis conducted, it can be concluded that Beghelli has not overcome the distress yet. In fact, it has managed to reduce its net financial position by -35.6% in 2019, as compared to 2015, but its operating performance did not achieve the expected results. To this end, its cost structure still appears rigid, preventing the company to reach economies of scale. And, overall, this has negatively impacted on profitability volumes. Actually, what happened was an excessive focus on new products launches which led Beghelli to neglect the defense of its competitive position in the lighting sector and, under an erroneous market demand forecast, it found itself incurring disproportionate costs in relation to sales revenues. In summary, despite no liquidity constraint has been pointed out and the company does not present concerns in facing its short-term liabilities, Beghelli needs to reorganize its production process in order to streamline its cost structure.

The third case study has been performed on Pininfarina, company operating in the automotive sector. Its distress begun just before the 2008 global crisis due to uncertain macroeconomic trend which, among others, impacted on the automotive sector. In fact, what triggered Pininfarina's decline have been expansionary business initiatives and investments which, in

turn, led it to suffer the slowdown of its reference market due to its high indebtedness level. Therefore, when in 2008 the crisis hit, the company's financial position severely deteriorated and it was deemed necessary its inclusion in the grey list in July 2009. To this regard, Pininfarina promptly implemented its first debt rescheduling agreement, together with a long-term business plan for the period 2008-2017. When, again, its operating performance underwent a further arrest in 2011, the company revised both its debt agreement and business plan in order to handle the considerable delay in the electric car's development together with a strong competition in the provision of engineering and styling services. The following years have been characterized by several improvements but, in fact, Pininfarina's real turning point was possible in December 2015 when Pincar, its controlling shareholder, stipulated an investment agreement with Mahindra&Mahindra Group. This deal has been concluded together with a debt rescheduling agreement, further supported by the 2016-2025 business plan. Briefly, it provided for (1) €26.5 million of capital increase, (2) the write down of 56.7% of exposures' nominal value and (3) the rescheduling of the remaining debt portion from 2025. An initial improvement in Pininfarina's performance and debt burden reduction, made it earn the exit from CONSOB's surveillance in May 2019 but, soon after, its results slightly deteriorated again and required a new capital injection in 2020, amounting to €20 million. In fact, it successfully managed to strongly reduce its net financial position because of the debt rescheduling agreement intervention and the financial support of the Mahindra Group. Furthermore, the company managed to undertake an efficient structural reorganization, with the aim of centralizing resources management and effectively convey its value proposition in terms of design and engineering services. Nevertheless, Pininfarina has failed to properly reorganize its cost structure, which results quite rigid and leads to the erosion of revenue volumes due to its lacking customer demand flexibility. Therefore, its investment agreement with the Mahindra Group is for sure a windfall since Pininfarina can count on a strong financial support and key player in foreign automotive sectors. Nevertheless, the company needs to set forth new strategic objectives in order to pursue a lean structure, without overlooking its defendable market position and competitive advantage, namely the luxury and design of the made in Italy.

To wrap up, there is no universal recipe for restructuring a financially distressed company, since the most adequate turnaround measures result both entity-based and industry dependent. First, there is no doubt that a targeted and immediate intervention already represents an advantage in favor of business recovery and should lead to immediate negotiations with the main creditors. Indeed, often times new liquidity injection is the turning point in a distressed condition, such as in all case studies under investigation, since it gives a break to the debt burden. Despite, this

may not be enough if the company does not set up a strategic plan at the same time. In fact, it is necessary to define a proper business plan with short and long-term strategic objectives, in line with the company's prospects and the reference sector direction. Finally, it is necessary to continuously take market trends into account, as in the case of Pininfarina, and to adapt the strategies initially implemented accordingly. Ultimately, corporate distress resolution represents a balance between quick fixes in terms of negotiations with the main creditors and debt agreements without losing sight of the growth and business restructuring objectives.

APPENDIX

Appendix 1 – The evolution of companies in the black list and grey list under the CONSOB supervision, 2009-2020. *(Personal elaboration from CONSOB)*

COMPANIES SUBJECT TO ADDITIONAL INFORMATION DISCLOSURE (ex art. 114, T.U.F.)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
A.S. ROMA S.p.A.	GL	GL	GL	GL	GL	GL	GL	GL	GL	GL	GL	BL
ACOTEL S.p.A.								BL	BL	BL	BL	BL
AEDES S.p.A.	GL	GL	GL	GL	BL	BL	GL	GL	GL	GL	GL	GL
AICON S.p.A.	GL	GL	GL	BL	BL	F						
ALBA PRIVATE EQUITY S.p.A.			BL	BL	BL	GL	GL	GL	R			
ALGOWATT S.p.A. (ex TERNIENERGIA S.p.A.)									GL	BL	BL	BL
ANTICHI PELLETTIERI S.p.A.	BL	BL	BL	BL	BL	F						
ARENA S.p.A.	BL	BL	BL	BL	BL	BL	BL	F				
ASTALDI S.p.A.										GL	GL	GL
ATLANTIA S.p.A.												GL
AUTOSTRADE MERIDIONALI S.p.A.												GL
BANCA CARIGE S.p.A.									GL	GL	GL	GL
BANCA INTERMOBILIARE DI INVESTIMENTI E GESTIONI S.p.A.									GL	GL	GL	GL
BANCA MONTE DEI PASCHI DI SIENA S.p.A.								GL	GL	GL	GL	GL
BANCA PROFILO S.p.A.	GL	R										
BASTOGI S.p.A.					GL	GL	GL	GL	GL	GL	GL	GL
BEE TEAM S.p.A.	BL	GL	GL	GL	GL	R						
BEGHELLI S.p.A.					BL	BL	GL	GL	GL	GL	GL	GL
BIALETTI S.p.A.	GL	GL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL
BIANCAMANO S.p.A.				GL	BL	BL	BL	BL	BL	BL	BL	BL
BIOERA S.p.A.		BL	BL	GL	GL	R						BL
BORGOSESIA S.p.A.									GL	GL	GL	GL

BRIOSCHI SVILUPPO IMMOBILIARE S.p.A.					BL	BL	BL	BL	BL	BL	GL	GL
CARRARO S.p.A.								GL	GL	R		
CDC POINT S.p.A.				BL	BL	D						
CHL S.p.A.								BL	BL	BL	BL	S
CICCOLELLA S.p.A.		GL	GL	BL	BL	BL	F					
CLASS EDITORI S.p.A.												BL
COBRA S.p.A.	GL	GL	GL	GL	GL	GL	F					
COGEME SET S.p.A.			BL	BL	BL	BL	F					
COSE BELLE D'ITALIA S.p.A. (ex MEDIACONTECH S.p.A.)				GL	BL	BL	BL	BL	BL	BL	F	
CRESPI S.p.A.	BL	BL	BL	BL	BL	F						
CTI BIOPHARMA S.p.A.	BL	BL	BL	BL	BL	BL	BL	BL	BL	D		
EEMS ITALIA S.p.A.	GL	R		BL	BL	BL	BL	BL	BL	BL	BL	BL
EPRICE S.p.A.											GL	BL
EUKEDOS S.p.A. (ex ARKIMEDICA S.p.A.)			BL	BL	BL	GL	GL	GL	GL	GL	GL	GL
EUTELIA S.p.A.	BL	BL	BL	BL	F							
EVEREL S.p.A.	BL	D										
FIDIA S.p.A.												BL
FINARTE-SEMENZATO S.p.A.	BL	BL	BL	BL	F							
FULLSIX S.p.A.	BL	BL	GL	GL	GL	GL	GL	GL	GL	GL	BL	BL
GABETTI PROPERTY SOLUTIONS S.p.A.	GL	GL	GL	BL	BL	BL	BL	BL	BL	BL	BL	BL
GEQUITY S.p.A. (ex INVESTIMENTI E SVILUPPO S.p.A.)		BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL
GRUPPO CERAMICHE RICCHETTI S.p.A.					GL	GL	GL	GL	GL	GL	D	
GRUPPO WASTE ITALIA S.p.A.								BL	BL	BL	D	
IL SOLE 24 ORE S.p.A.								BL	BL	BL	GL	GL
ITALIAONLINE S.p.A. (ex SEAT PAGINE GIALLE S.p.A.)			BL	BL	BL	BL	BL	GL	GL	GL	D	
ITWAY S.p.A.									GL	BL	BL	BL
KERSELF S.p.A.		GL	BL	BL	BL	F						
KINEXIA S.p.A.	GL	GL	GL	GL	GL	GL	R					

LVENTURE GROUP S.p.A.				BL	GL	GL	GL	GL	GL	GL	GL	GL
MAIRE TECNIMONT S.p.A.					GL	GL	GL	GL	GL	R		
MARIELLA BURANI FG S.p.A.	BL	BL	F									
MERIDIANA FLY S.p.A.	BL	BL	BL	BL	BL	D						
MOLECULAR MEDICINE S.p.A.	GL	R										
MONDO HE MOVIEMAX S.p.A.		BL	BL	BL	BL	BL	F					
MONTEFIBRE S.p.A.	BL	BL	BL	BL	BL	F						
MONTI ASCENSORI S.p.A.			BL	BL	F							
NETWEEK S.p.A. (ex DMAIL GROUP S.p.A.)				BL	BL	BL	BL	BL	BL	BL	BL	BL
OLIDATA S.p.A.		BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL
OMNIA NETWORK S.p.A.	BL	BL	F									
PIERREL S.p.A.				BL	BL	BL	BL	BL	BL	BL	GL	GL
PININFARINA S.p.A.	GL	GL	GL	GL	GL	GL	GL	GL	GL	GL	R	
PLC S.p.A. (ex INDUSTRIA E INNOVAZIONE S.p.A.)					GL	GL	BL	BL	BL	GL	GL	GL
PRAMAC S.p.A.		GL	BL	BL	F							
PRELIOS S.p.A.				BL	BL	BL	BL	BL	BL	BL	GL	GL
PREMAFIN FINANZIARIA S.p.A.					GL	GL	D					
PREMUDA S.p.A.						GL	GL	GL	D			
RCS MEDIAGROUP S.p.A.					GL	GL	GL	GL	GL	R		
RDB S.p.A.			GL	BL	F							
RICHARD GINORI S.p.A.	GL	GL	GL	BL	F							
RISANAMENTO S.p.A.	GL	GL	GL	GL	GL	GL	GL	GL	BL	BL	BL	BL
S.S. LAZIO S.p.A.	GL	GL	GL	R								
SAFILO S.p.A.	GL	R										
SCREEN SERVICE S.p.A.					BL	BL	F					
SERI INDUSTRIAL S.p.A. (ex KRENERGY S.p.A.)	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL
SNAITECH S.p.A. (ex SNAI S.p.A.)	BL	GL	GL	GL	GL	GL	GL	GL	GL	D		
SNIA S.p.A.	BL	BL	F									
SOCOTHERM S.p.A.	BL	BL	D									
SOPAF S.p.A.		GL	GL	BL	BL	F						
STEFANEL S.p.A.	GL	GL	GL	GL	GL	GL	GL	BL	BL	BL	BL	D

TAS S.p.A.	BL	BL	BL	BL	BL	BL	BL	BL	GL	GL	GL	R
TISCALI S.p.A.	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL
TITANMET S.p.A. (ex SINTESI S.p.A.)	GL	GL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL
TREVI S.p.A.									GL	BL	BL	BL
TREVISAN COMETAL S.p.A.	BL	F										
VIAGGI DEL VENTAGLIO S.p.A.	BL	F										
ZUCCHI S.p.A.		BL	BL	BL	BL	BL	BL	BL	BL	BL	BL	BL

GL	Company entered the Grey List
BL	Company entered the Black List
F	Company failed
R	Company recovered from distress
D/S	Company delisted or suspended from the regulated market

Appendix 2 – Zucchi: reorganized financial statements. *(Personal elaboration from AIDA database and Annual Financial Statements)*

Reorganized Income Statement ('000 €)	**2015**	**2016**	**2017**	**2018**	**2019**
Revenues	92.933	80.418	77.093	83.018	70.326
Var %		*-13,50%*	*-4,10%*	*7,70%*	*-15,30%*
Other income	2.508	1.678	3.362	6.330	5.321
Total revenues	**95.441**	**82.096**	**80.455**	**89.348**	**75.647**
Raw materials, consumables and goods	-41.200	-29.401	-26.607	-35.879	-27.425
% on total revenues	*43,20%*	*35,80%*	*33,10%*	*40,20%*	*36,30%*
Contribution margin	**54.241**	**52.695**	**53.848**	**53.469**	**48.222**
% on total revenues	*56,80%*	*64,20%*	*66,90%*	*59,80%*	*63,70%*
Personnel expenses	-26.651	-19.572	-18.263	-17.439	-17.333
% on total revenues	*27,90%*	*23,80%*	*22,70%*	*19,50%*	*22,90%*
Other operating costs	-38.376	-28.508	-28.814	-27.390	-21.779
% on total revenues	*40,20%*	*34,70%*	*35,80%*	*30,70%*	*28,80%*
EBITDA	**-10.786**	**4.615**	**6.771**	**8.640**	**9.110**
EBITDA %	*-11,30%*	*5,60%*	*8,40%*	*9,70%*	*12,00%*
Write-offs	-2.454	-43	-168	-626	0
Amortization and depreciation	-2.596	-1.690	-1.360	-1.259	-5.029
EBIT	**-15.836**	**2.882**	**5.243**	**6.755**	**4.081**
EBIT %	*-16,60%*	*3,50%*	*6,50%*	*7,60%*	*5,40%*
Interest income	40	154	196	290	295
Interest expenses	-1.538	-223	-338	-608	-280
Exchange rate gains (losses)	-1.032	-42	0	-1	-24
Non-recurring and extraordinary items	203	2.840	-18	0	406
EBT	**-18.163**	**5.611**	**5.083**	**6.436**	**4.478**
Taxes	-1.368	-1.147	-1.528	-2.172	-2.006
Net income	**-19.531**	**4.464**	**3.555**	**4.264**	**2.472**
% on total revenues	*-20,50%*	*5,40%*	*4,40%*	*4,80%*	*3,30%*

Reorganized Balance Sheet ('000 €)	**2015**	**2016**	**2017**	**2018**	**2019**
Inventory	21.321	20.837	25.130	22.444	20.509
DIOH	*186*	*255*	*340*	*225*	*269*
Trade receivables	23.412	22.455	22.824	23.560	23.809
DSO	*91*	*101*	*107*	*102*	*122*
Trade payables	-25.116	-11.670	-10.396	-10.979	-12.634
DPO	*114*	*73*	*68*	*62*	*92*
Trade working capital	19.617	31.622	37.558	35.025	31.684
Other operating current assets (liabilities)	-12.252	-5.067	-3.611	-3.746	-2.532
Net working capital	**7.365**	**26.555**	**33.947**	**31.279**	**29.152**
Goodwill	0	0	0	0	0
Intangible assets	536	360	714	1.243	1.551
Tangible assets	34.478	32.919	31.910	56.219	49.167
Equity investments	114	114	114	114	114
Total operating fixed capital	35.128	33.393	32.738	57.576	50.832
Other non-current operating assets (liabilities)	-12.633	-14.295	-13.110	-12.193	-11.658
Invested capital	**29.860**	**45.653**	**53.575**	**76.662**	**68.326**
Net intercompany position	131	829	2.397	0	0
Non-operating non-current assets	391	391	391	391	391
Total funds invested	**30.382**	**46.873**	**56.363**	**77.053**	**68.717**
Shareholders’ equity	**-39.604**	**-25.253**	**-21.759**	**-22.213**	**-15.735**
Shareholders’ financing	**0**	**0**	**0**	**0**	**0**
Other financial debt	0	0	0	42.642	40.383
Bonds	0	0	0	0	0
Short-term bank debt	80.305	80.040	87.495	73.424	67.534
Long-term bank debt	0	0	0	0	0
Cash	-10.319	-7.914	-9.373	-16.800	-23.465
Net financial position	**69.986**	**72.126**	**78.122**	**99.266**	**84.452**
Total source of financing	**30.382**	**46.873**	**56.363**	**77.053**	**68.717**

Appendix 3 – Beghelli: reorganized financial statements. *(Personal elaboration from AIDA database and Annual Financial Statements)*

Reorganized Income Statement ('000 €)	**2015**	**2016**	**2017**	**2018**	**2019**
Revenues	168.103	180.369	177.865	167.768	151.844
Var %	*12,30%*	*7,30%*	*-1,40%*	*-5,70%*	*-9,50%*
Capitalized internal works	99	338	275	893	367
Other income	3.821	3.479	9.797	3.001	10.668
Total Revenues	**172.023**	**184.186**	**187.937**	**171.662**	**162.879**
Raw materials, consumables and goods	-76.419	-80.809	-81.589	-75.119	-74.239
% on total revenues	*44,40%*	*43,90%*	*43,40%*	*43,80%*	*45,60%*
Contribution margin	**95.604**	**103.377**	**106.348**	**96.543**	**88.640**
% on total revenues	*55,60%*	*56,10%*	*56,60%*	*56,20%*	*54,40%*
Personnel expenses	-36.537	-37.162	-37.719	-39.340	-36.180
% on total revenues	*21,20%*	*20,20%*	*20,10%*	*22,90%*	*22,20%*
Other operating costs	-42.483	-46.416	-44.891	-53.097	-36.698
% on total revenues	*24,70%*	*25,20%*	*23,90%*	*30,90%*	*22,50%*
EBITDA	**16.584**	**19.799**	**23.738**	**4.106**	**15.762**
EBITDA %	*9,60%*	*10,70%*	*12,60%*	*2,40%*	*9,70%*
Write-offs	-275	-1.500	-3.868	-2.446	-250
Provisions	-453	-876	-1.037	-384	-406
Amortization and depreciation	-6.732	-6.856	-7.105	-6.436	-8.922
EBIT	**9.124**	**10.567**	**11.728**	**-5.160**	**6.184**
EBIT %	*5,30%*	*5,70%*	*6,20%*	*-3,00%*	*3,80%*
Interest income	6.377	1.557	1.012	1025	661
Interest expenses	-15.830	-5.042	-4.288	-4.604	-4.342
Exchange rate gains (losses)	-251	99	-844	356	-128
Non-recurring and extraordinary items	1.183	-2.031	-2.228	-970	-2.825
EBT	**603**	**5.150**	**5.380**	**-9.353**	**-450**
Taxes	-24	-1.465	-1.825	262	-707
Net income	**579**	**3.685**	**3.555**	**-9.091**	**-1.157**
% on total revenues	*0,30%*	*2,00%*	*1,90%*	*-5,30%*	*-0,70%*

Reorganized Balance Sheet ('000 €)	2015	2016	2017	2018	2019
Inventory	54.971	54.275	45.803	56.955	48.018
DIOH	*259*	*242*	*202*	*273*	*233*
Trade receivables	38.358	38.329	34.053	34.265	30.918
DSO	*82*	*77*	*69*	*74*	*73*
Trade payables	-40.952	-43.369	-38.798	-48.285	-35.279
DPO	*124*	*123*	*110*	*136*	*114*
Trade working capital	52.377	49.235	41.058	42.935	43.657
Other operating current assets	89.957	89.120	94.752	64.443	55.222
Other operating current liabilities	-20.075	-20.374	-20.327	-18.210	-19.046
Accruals and deferred income	5.574	5.905	8.134	208	5.355
Net working capital	**127.833**	**123.886**	**123.617**	**89.376**	**85.188**
Goodwill	7.916	7.916	7.916	7.916	6.721
Intangible assets	9.704	8.954	8.108	9.052	9.799
Tangible assets	78.321	77.137	66.614	63.680	61.418
Equity investments	362	380	173	132	134
Total operating fixed capital	96.303	94.387	82.811	80.780	78.072
Other non-current operating assets (liabilities)	-31.914	-31.211	-31.431	-11.621	-11.947
Invested capital	**192.222**	**187.062**	**174.997**	**158.535**	**151.313**
Net intercompany position	2.569	2.221	1.825	147	161
Total funds invested	**194.791**	**189.283**	**176.822**	**158.682**	**151.474**
Shareholders' equity	**104.243**	**106.345**	**105.944**	**94.213**	**93.172**
Shareholders' financing	**0**	**0**	**0**	**0**	**0**
Other financial debt	13.723	11.262	10.051	9.340	13.132
Bonds	0	0	0	0	0
Short-term bank debt	36.727	41.481	28.998	77.502	60.473
Long-term bank debt	66.687	50.131	59.093	2.400	2.949
Securities	-1.365	-3.966	-3.017	-439	-1.155
Cash	-25.224	-15.970	-24.247	-24.334	-17.097
Net financial position	**90.548**	**82.938**	**70.878**	**64.469**	**58.302**
Total source of financing	**194.791**	**189.283**	**176.822**	**158.682**	**151.474**

Appendix 4 – Pininfarina: reorganized financial statements. *(Personal elaboration from AIDA database and Annual Financial Statements)*

Reorganized Income Statement ('000 €)	**2015**	**2016**	**2017**	**2018**	**2019**
Revenues	75.126	62.660	79.642	97.528	81.325
Var %	*-10,80%*	*-16,60%*	*27,10%*	*22,50%*	*-16,60%*
Changes to work in progress	2.028	-3.929	72	0	0
Other income	5.738	10.979	7.536	7.889	9.979
Total revenues	**82.892**	**69.710**	**87.250**	**105.417**	**91.304**
Raw materials, consumables and goods	-8.450	-4.786	-8.360	-9.170	-9.159
% on total revenues	*10,20%*	*6,90%*	*9,60%*	*8,70%*	*10,00%*
Contribution margin	**74.442**	**64.924**	**78.890**	**96.247**	**82.145**
% on total revenues	*89,80%*	*93,10%*	*90,40%*	*91,30%*	*90,00%*
Personnel expenses	-47.689	-43.932	-44.604	-50.082	-54.996
% on total revenues	*57,50%*	*63,00%*	*51,10%*	*47,50%*	*60,20%*
Other operating costs	**-25.274**	**-20.221**	**-26.649**	**-33.483**	**-27.985**
% on total revenues	*30,50%*	*29,00%*	*30,50%*	*31,80%*	*30,70%*
EBITDA	**1.479**	**771**	**7.637**	**12.682**	**-836**
EBITDA %	*1,80%*	*1,10%*	*8,80%*	*12,00%*	*-0,90%*
Write-offs	-9.534	-682	-46	-5.298	-9.467
Provisions	-1.075	-168	-269	-108	-4.205
Ammortization and depreciation	-3.397	-3.143	-3.023	-3.433	-4.918
EBIT	**-12.527**	**-3.222**	**4.299**	**3.843**	**-19.426**
EBIT %	*-15,10%*	*-4,60%*	*4,90%*	*3,60%*	*-21,30%*
Interest income	412	191	130	15	744
Interest expenses	-5.602	-3.095	-2.225	-2.431	-2.214
Exchange rate gains (losses)	74	-27	-144	-50	-28
Non-recurring and extraordinary items	50	26.672	73	0	84
EBT	**-17.593**	**20.519**	**2.133**	**1.377**	**-20.840**
Taxes	-576	12	-821	796	-2.235
Net income	**-18.169**	**20.531**	**1.312**	**2.173**	**-23.075**
% on total revenues	*-21,90%*	*29,50%*	*1,50%*	*2,10%*	*-25,30%*

Reorganized Balance Sheet ('000 €)	**2015**	**2016**	**2017**	**2018**	**2019**
Inventory	5.721	1.749	1.875	3.539	4.976
DIOH	*244*	*132*	*81*	*139*	*196*
Trade receivables	17.707	12.407	17.366	21.345	24.589
DSO	*85*	*71*	*78*	*79*	*109*
Trade payables	-10.707	-12.924	-26.292	-29.667	-34.099
DPO	*114*	*186*	*270*	*250*	*330*
Trade working capital	12.721	1.232	-7.051	-4.783	-4.534
Other operating current assets	4.892	5.964	7.853	12.716	15.246
Other operating current liabilities	-7.285	-6.003	-6.651	-7.512	-11.314
Accruals and deferred income	-1.794	-788	5.781	400	1.819
Net working capital	**8.534**	**405**	**-68**	**821**	**1.217**
Goodwill	1.043	1.043	1.043	1.043	0
Intangible assets	1.208	765	629	6.283	6.092
Tangible assets	51.382	50.110	49.557	49.979	46.266
Equity investments	323	336	349	857	854
Total operating fixed capital	53.956	52.254	51.578	58.162	53.212
Other non-current operating assets (liabilities)	-4.991	-4.928	-4.792	-4.778	-4.243
Invested capital	**57.499**	**47.731**	**46.718**	**54.205**	**50.186**
Net intercompany position	254	-15.493	230	2.886	1.394
Total funds invested	**57.753**	**32.238**	**46.948**	**57.091**	**51.580**
Shareholders' equity	**9.828**	**30.462**	**58.803**	**61.749**	**39.002**
Shareholders' financing	**0**	**0**	**0**	**0**	**0**
Other financial debt	52.427	0	0	0	9.926
Bonds	0	0	0	0	0
Short-term bank debt	7.236	3.428	3.554	4.363	2.368
Long-term bank debt	25.617	26.131	24.375	22.441	20.399
Securities	-16.359	0	0	-13.106	0
Cash	-20.996	-27.783	-39.784	-18.356	-20.115
Net financial position	**47.925**	**1.776**	**-11.855**	**-4.658**	**12.578**
Total source of financing	**57.753**	**32.238**	**46.948**	**57.091**	**51.580**

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