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The valuation of distressed companies: the case of the Indian premium hotels

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To my family, Laura and all friends that supported me during this “journey”.

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Table of contents

Introduction	4
Chapter 1 – How to determine and analyze corporate crisis	7
1.1 Introduction	7
1.2 The concept of corporate crisis	8
1.3 Characteristics of declining companies	10
1.4 Causes and main stages of corporate crisis	13
1.5 How to detect distressed companies	15
1.6 Key aspects to consider when valuing firms in trouble	18
1.7 Corporate crises: an Italian prospective	21
1.7.1 Attested Restructuring Plan – “Piano Attestato di Risanamento”	24
1.7.2 Agreements on Debts Restructuring – “Accordi di Ristrutturazione dei Debiti”	25
1.7.3 Preventive Agreement – “Concordato Preventivo”	25
1.7.4. Filing for Bankruptcy – “Dichiarazione di Fallimento”	26
Chapter 2 – How to apply valuation models to distress companies	27
2.1 Introduction	27
2.2 Discounted Cash Flow Model	29
2.2.1 Scenarios analysis: adjustments to DCF model	34
2.2.2 Going concern DCF adjusted for the probability of default	35
2.3 Adjusted Present Value	36
2.4 The relative valuation approach	37
2.5 Option Pricing Valuation	39
Chapter 3 – Industry analysis	42
3.1 Introduction	42
3.2 Challenges faced by the premium Indian hotel industry	44
3.3.1 Indian Government’s Taxation Policies	45
3.3.2 Debt-funding by Indian banks	45
3.3.3 Licensing issues	46
3.3.4 Technology in the hotel industry	46
3.3.5 Human resources management	47
3.4 Market segmentation and Porter Five Forces	47
3.4.1 Degree of rivalry among existing firms	49

3.4.2 Threat of new entrants	50
3.4.3 Substitute products or services	51
3.4.4 Power of suppliers	52
3.4.5 Power of buyers	53
3.5 Key financial analysis of the leading companies in the industry	54
3.5.1 The Indian Hotel Company Ltd.	54
3.5.2 Hotel Leela Venture Ltd.	56
3.5.3 The EIH Ltd.	57
3.5.4 Other industry players	59
3.6 Industry risk and concerns	60
Chapter 4 – The Hotel Leela Venture crisis analysis	62
4.1 Introduction	62
4.2 Economic and financial analysis	64
4.3 Risks and uncertainties	73
Chapter 5 - Valuation of The Hotel Leela Venture Ltd.	75
5.1 Introduction	75
5.2 Valuation parameters	76
5.3 Scenarios analysis	77
5.4 The Hotel Leela Venture Ltd. valuation: APV technique in mixed version.....	84
5.4.1 Unlevered cost of capital calculation	86
5.4.2 Explicit forecasting period valuation	87
5.4.3 Continuing Value and WACC calculation	88
5.5. Option Pricing valuation approach and the estimation of the liquidation value.	97
5.6 Relative Valuation Approach: comparable M&A transaction.	100
Chapter 6 – Conclusions.....	102
Appendix	111
Bibliography	116
Sitography.....	119
Newspapers’ articles	119

Introduction

Recent times has been deeply characterized by financial and economic crisis and the attention towards companies in distress have been relevant: both from an economical and from a social point of view the failure of a company implies relevant costs to the corporation's shareholders and to the related community. Due to the importance of the subject, the main academics, researchers and professionals in this field have tried to detect the main distinctive features of a company in distress providing some potential guidelines and principles in order to investigate if something can be done to turn out the company from this unfair situation. Moreover, the legislator too, proposed a series of tools in order to deal with financial distress and the value of distressed firms.

The first chapter of this dissertation aims to investigate what are the distinctive characteristics of a company in distress. The literature suggests numerous responses that will be analyzed and compared in order to provide different interpretation of the concept of corporate crisis: the distress driver are many and can vary according to the specific aspects that the researcher wants to investigate. Nevertheless, the typical path of the crisis and the possible causes leading to this state will be defined. In order to do that, some framework for companies' analysis and some accounting ratio and other easy calculation are presented: these are immediate tools through with the analysis can assess some key performance indicators of the company that has to be valued trying to correctly contextualize the firm. As said in the previous lines, the Italian legislator is dealing with this subject so there will be a dedicated paragraph that will challenge the work that the legislator has done until now trying to underline some limitations or needs of improvement.

A distressed company not only have high financial burden but it also presents problems with its business model that usually is the starting point to assess the future of the firm and propose a reliable business plan on which the estimation of the enterprise value will be rooted. In a distress condition, the classic valuation methods need to be adjusted according to the pessimistic scenario.

The second chapter will open with an illustration of the facts and particularities of corporate valuation in a context of distress. Then, the most common valuation methods will be presented assessing the pros and cons of each ones analyzed in relation to its application to firms in distress.

In the third chapter, the case of the Indian hotel industry has been conduct and it will serve as the basis to investigate why some premium players of this industry, despite the positive

market conditions are facing distress. The interest for this subject and the idea to investigate this specific theme comes to me few months ago when I was attending an exchange program in the country. I was curious to understand if such huge, but not really populated, amazing palaces could really be profitable and investigate the dynamics behind that industry and its main driver. Concretely, the valuation of an Indian listed company currently facing a situation of distress is provided in detail in order to estimate the possible enterprise value and investigate the main causes of distress and some plausible solutions to this condition.

Coherently with what theorized in the first and second chapters of this dissertation, a comprehensive analysis of the industry and of its main listed players will be developed in order to assess the basis and understand, from a strategic point of view, why some of the main firms in that industry are no longer able to maximize their performances.

The exhaustive analysis carried on in the third chapter will be the basis for the projection of financials of the company taken as object of the analysis – The Hotel Leela Venture Ltd, into the future that will be delivered in the fourth chapter.

The Company will be valued through an adjusted version of the DCF method and through relative valuation method. The estimates and the related business plan will be based on the latest available news as well as some analysts' reports. The valuation will present a sensitivity analysis where different plausible future scenarios, affected by the implementation of different strategies or a change in industry growth or cost of capital, are presented.

Finally, in the last chapter, all main arguments and conclusions derived in the previous analysis of this dissertation will be summarized and there will be an analysis of the enterprise value and potential future implication at the light of all the findings presented in the previous chapters.

Chapter 1 – How to determine and analyze corporate crisis

1.1 Introduction

The business environment, as theorized by M. Porter in 1979, is shaped by forces that affect and govern the profit structure of an industry and the one of the related companies that compete in that market. Each company has its own distinctive features and peculiarities and in order to be able to challenge effectively the several threats that the environment presents, it is of primary importance to be aware of the internal and external factors that affect the business.

In recent years, financial crises, the increasing complexity of markets' dynamics related to the greater competition among firms at the global level had been reflected in a higher level of corporate risk that combined with other factors such as profitability reduction or inadequate management (they will be deeply analyzed in paragraph 1.3) can turn into company distress or crisis.

Moreover, each company is operating in a specific phase of its life-cycle and the probability of entering in a regressive path is part of the risks that characterized every firm operating in a complex economic environment. Growth companies do not want to become mature and mature companies constantly try to rediscover their growth roots in order to do not go into decline, with the accompanying loss of earnings and value. However, being a mature company is different from being a company in a decline phase: in the first case, the bulk of the value is almost totally generated from existing assets accumulated during the past years of operations, and only few from growth assets. In the second case, growth asset do not generate any value, especially if the company reinvest at a rate that it is lower than the cost of capital. The entire value of a declining company is represented by existing assets and sometimes it can be higher if those assets are divested or liquidated than if exploited to enhance operations. Moreover, declining companies if analyzed on the liability side, result to be over levered since they can't rely on high future revenues in order to cover debt obligations.

The aim of this chapter is to give a better understanding of what corporate crisis stand for, the difference between decline and distress and investigate the main causes that can generate corporate crisis and its evolutionary stages. This analysis will be the ground for future chapters in order to asses the main regards related to the valuation of a distressed firms. As theorized by A. Damodaran, there is a *dark side of valuation* when valuing a company in distress: analysts have to consider that the positive mindset that usually can be adopt if the firm is in a "revenue growth and reinvestment phase" has to be challenged and that cash flow from the future can be lower than those generated today.

Specifically, the thesis will consider practical problems of traditional valuation models such as those related to the Discounted Cash Flow (DCF) or related to relative valuations model such as the analysis

of comparable firms.

1.2 The concept of corporate crisis

The terms “crisis” or “distress” are used by economists and researchers in a broad sense to describe a firm that is experiencing a condition of instability or danger that could lead to a decisive and drastic change. According to the complexity of the environment, companies have to be able to deal with an alternation of successful and unsuccessful phases: one level of complexity is a physiological status of distress, mainly related to the normal evolution of the firm in relation to the stage in its life-cycle. Something different is to consider a pathological status that is a condition of uncertainty and not performing related to a specific company.

The problem of declining companies has been an area of primary research that has involved many corporate finance fellows and this phenomenon has been differently interpreted and observed under several prospective. According to Chan and Chen (1991), firms are facing financial distress when they have lost market value because of poor performance, they are inefficient producers, and they are likely to have high financial leverage and cash flow problems. Their prices tend to be more sensitive to changes in the economy, and they are less likely to survive adverse economic conditions. Another general and broad definition has been provided by A. Damodaran (1994) who stated that “a firm in financial distress has some or all of the following characteristics: negative earnings and cash flows, an inability to meet debt payments, no dividends, and high debt/equity ratios”.

A definition that is important to consider is the one provide by Senbet and Wang (2012) that they made a clear distinction between economic distress and financial distress. On the one hand the classified firms in financial distress as those unable to repay their credit obligations being financial distress highly connected to the leverage strategy adopted by firms. On the other hand, they refer to economic distress as the result of the operational problems. From this definition can be understood that a financially distressed firm may have a viable operation of real assets and thus not be economically distressed while an all-equity firm can be economically distressed, but can never be financially distressed because it has no debt”.

Other corporate finance fellows (Wachtell, 2013) refer to distress from a liabilities point of view focusing only on the firms difficulties in dealing with its liabilities, whether in making payments or obtaining new funds to resolve liquidity needs.

A different way to analyze company distress is through the approach adopt by Prasanna Chandra (2001) that theorized the *Industrial Sickness*. In broader lines, sickness in industrial and business units is defined as “an industrial unit may be regarded as sick if it faces financial embarrassment (arising out of its inability to honor its obligations as and when they mature) and its viability is threatened by

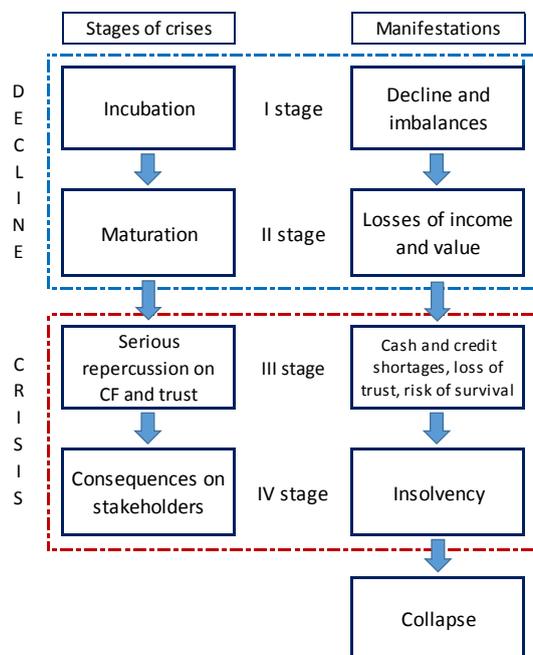
adverse factors”. A company becomes sick when its cash inflows are insufficient to meet the cash outflows. Often such companies would be depending on debt to source their funds and eventually would move to a debt trap.

Another interesting definition is the one provided by Reinhart and Rogoff (2009), professors at Harvard University that elaborate a more optimistic view of the theme, defining financial crises as an equal opportunity menace.

From an Italian perspective, F. Buttignon (2008) defined the crisis condition as a situation in which the firm is no longer able to fulfill debt obligations by using cash flows generated through business activities and that destroy the economic value both for shareholders and stakeholders.

One of the main contributors has been L. Guatri (1995) that defined the provided a detailed path composed of four stages that explain how firms fall into distress.

Figure 1 - The four stages of crisis development and its manifestations



Source: L. Guatri (1995)

The first stage is the *incubation* phase in which revenues start declining and the company struggle to cope with financial requirements; this can be associated with an increase of the inventory and its related costs. In this first phase, the company is not in a proper crisis yet and if the company’s management is able to reorganize resources and adapt the strategy to the new environmental conditions, the firm can return to its normal situation.

The second stage is the *maturation* one in which the previous revenues decline turns into net losses. The company in order to meet its financial obligations has to use the assets or resources allocated to other function or the excess cash if any. In this way, there is a reduction of the net financial position due to a reduction of cash and increase of financials debts and this has a negative impact on firm’s

value. In this first to phases companies are in a decline phase and not in a deep crisis yet.

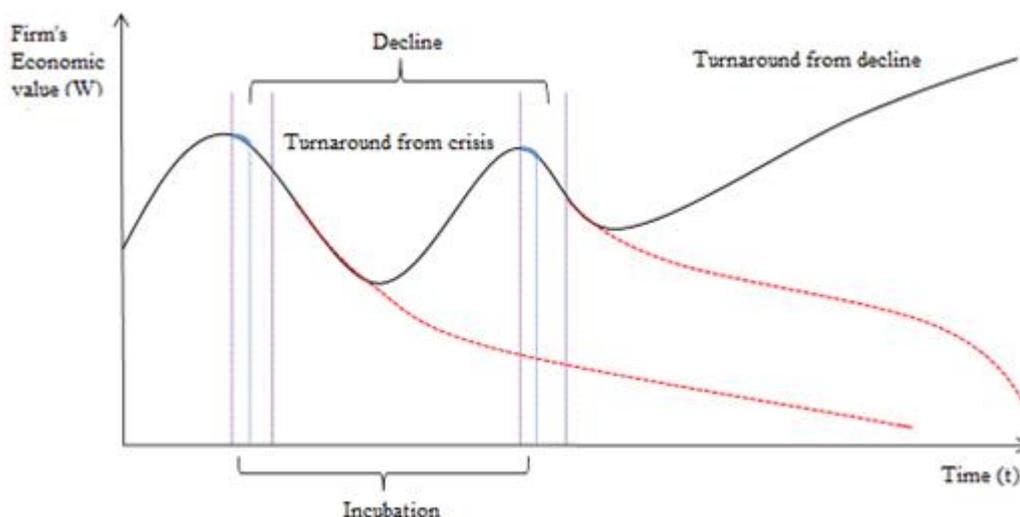
The third stage is characterized by a *repercussions on cash flows and trust*: this phase corresponds to insolvency so, the firm is no longer able to make the payments when due. If there is enough equity to compensate for this shortage of liquidity and if positive future economic perspectives exists, the company can exit from this crisis path; otherwise, if the situation is not recoverable, insolvency is definitive.

The fourth and last stage is the one in which there is a concrete repercussion on shareholders: the established condition of crisis affect the reputation and the trust of the company, this is followed by a loss of customers and the final collapse of the financial structure.

As précised before the first to steps are not fatal for the life of the company however, the crisis is fatal in the last two ones and the company is at the point of no return: no adjustments can be adopted and the firm can only rely on its creditors.

During the decline period, the top management has the chance to stop and even resolve the inefficiencies and the related problems, otherwise the net results and the firm's economic value will collapse. As illustrated in Figure 2, as soon as the causes of inefficiencies are recognized the early in time the company can recover from decline avoiding to erode too much value.

Figure 2 - The crisis evolutionary path



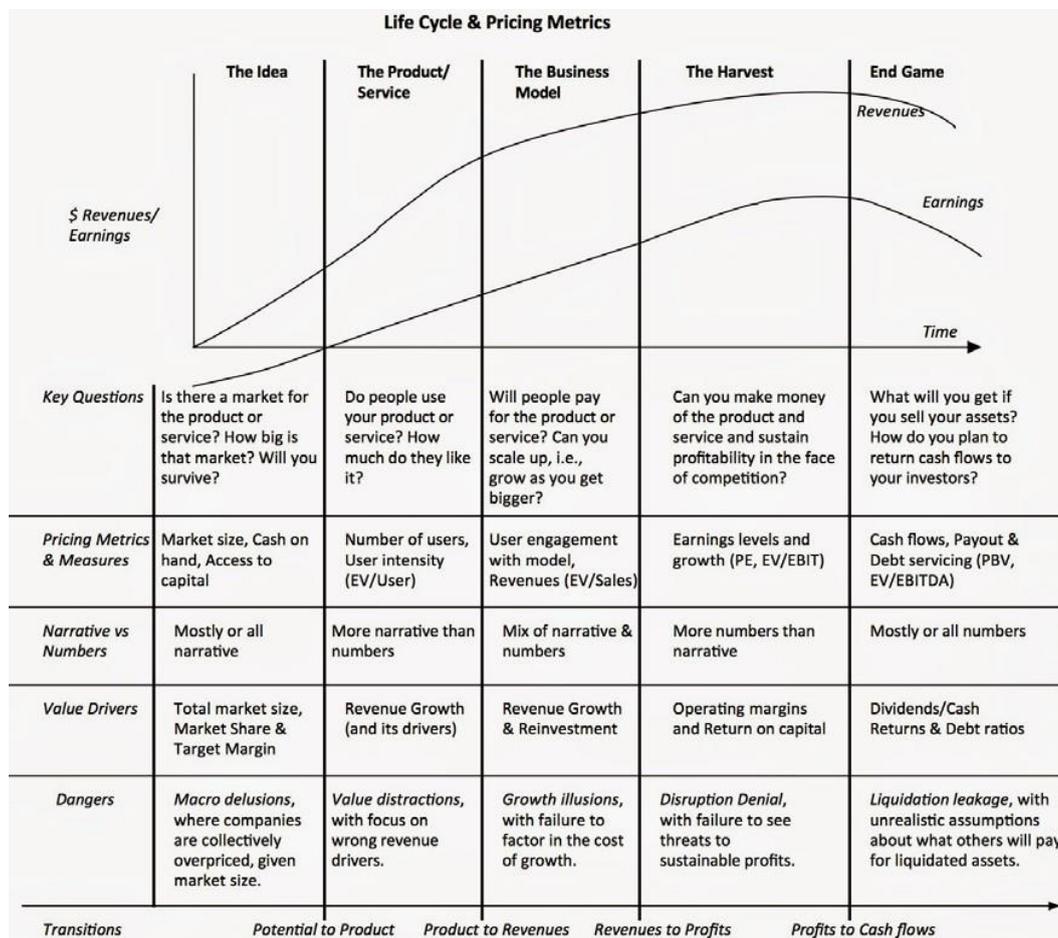
Source: translated from A. Falini, *La crisi d'impresa e le sue cause: un modello interpretativo* (2011)

1.3 Characteristics of declining companies

After having defined the concept of financial and economical distress and conducted a brief literature overview, the aim of this paragraph is to investigate the causes that can generate distress. Applying a

management framework such as the company life-cycle it is possible to analyze the growth stages of a company. Firm begins as a start-up and if supported by the market that provides them enough funds to survive for the first times and by a powerful and disruptive business model, a phase of rapid expansion takes place. Subsequently, a “high growth” and a “mature growth stage” usually follow. Then, a last stage called “decline” usually occurs unless firms are able to renovate themselves letting start a second wave of life. To quote Damodaran “growing old is mandatory, growing up is optional”: in other words, when the decline stage take place, the company either is capable of renewing itself or it is condemned to fall into bankruptcy.

Figure 3 - The company life cycle



Source: A. Damodaran website

The reasons for decline are numerous and can be generated by both internal and external factors. First of all, companies are composed and managed by people, so one of the factors that can be identified as a plausible causes of decline is *management incompetence*. This can be generated by lack of concrete managerial skills, lack of expertise or non-ethical behavior when the firm’s managers cause a crisis condition intentionally just because of personal gains probably higher than those of the whole shareholders.

If on the one hand managers' actions are difficult to control, employees can be organized and monitored thanks to efficient and well implemented corporate governance system of internal control in order to prevent and do not make fatal for the firm any misbehavior they can undertake.

Focusing the attention to the external causes, they can be grouped into those at the industry level so that affects all firms belonging to the same industry such as a not expected increase of oil prices that affect the airline transportation industry, and those influenced by macroeconomic factors for example some African countries political instability.

In order to assess the riskiness of a certain industry it's important to perform an in depth industry analysis that can be conducted applying the main strategic and managerial tools such as SWOT analysis, Porter's Five Forces analysis and go through some eminent industry reports.

Rather than that, follows an analysis of the main factors that can negatively affect the performance of a company:

- *Stagnant or declining revenues*: one of the main signs of decline is the inability of the company to increase revenues over a long period of time, even if market conditions are generally positive.
- *Shrinking or negative margins*: the inability to increase revenues can result in the decline (or negative values) of earnings or profit margins. This is a result of a loss of bargaining power and a reduction in the pricing level to prevent revenues from falling further. Sometimes profit are generated only because of the sale of assets.
- *Big payouts (dividends and stock buybacks)*: if the firm is in a declining phase the opportunity to make investments will be considerably low. So extra value is usually generated by the divestiture of existing assets to obtain cash inflows. For this reason, if these firms do not have large debt payments to fulfill, they can use cash flows to pay out large dividends, sometimes exceeding their earnings, and also buy back stocks.
- *Asset divestitures*: as debt burden of declining companies increases there is a strong pressure to divest assets to meet upcoming debt obligations. In addition, since the assets are not at their optimal use, a logical step is to sell these assets.
- *Financial leverage*: when revenues are declining and profit margin shrinking, it is extremely difficult to meet financial liabilities. In addition, due to the higher risk, it is usually difficult for the firm to refinance its debt because of the cost of borrowing capital and the lack of trust from financial institutions.
- *Liquidity constraints*: the revenues reduction combined with an increase in net working capital, result in lower free cash flows and therefore into a liquidity reduction.

1.4 Causes and main stages of corporate crisis

Corporate crisis are not the result of few disconnected factors but they are generated by several interconnected phenomenon that, given the high level of complexity, are difficult to be determined especially under time constraints.

According to Damodaran (2009), five main corporate crises causes can be underlined:

- *Crisis due to inefficiency*: it usually takes place when firms competing in the same industry have returns that are lower than those of competitors. This can occur because of lack of innovation such as obsolete technology and operational inefficiency. In order to detect this kind of problems some ratio indicators can be applied to compare efficiency index such as hours worked per unit of output, number of items produced in an hour etc. However, inefficiency can be affected also by poor commercial performance or no strategic planning or from a financial point of view, control on costs and cost of capital.
- *Crisis due to overcapacity/rigidity*: one of the problem that especially the MNEs have to face is the one related to the capability of maintaining a degree of flexibility especially when the dimensions of the company tends to increase. The rigidity of the firm, connected with poor adaptability can become the roots for company distress. For example, if the company has to face an unexpected demand reduction that affect the whole industry, being too rigid will cause an increase in fixed costs compared to the overall firm structure. Flexible companies could try to reduce the output level or enter new markets in order to place the excess capacity generated by the industry shortage of demand. Another problem that affects rigid company more than the flexible ones is when sales growth rate is lower than how expected and fixed investments has been made yet.
- *Crisis due to product deterioration*: in case of a gross margin reduction that makes difficult to cover fixed costs firm can incur into insufficient level of profit. The causes could be related either to the loss of product competitiveness or the entry of a new competitor in the industry, or to the achievement of maturity or decline stage in the product lifecycle.
- *Crisis due to a lack of innovation and planning*: companies that are not able to adjust its activity to the external market conditions and changing environment are condemn to this crisis. This can occur when management still focused only on short term goals without planning future activities with a long run perspective. Lack of innovation takes place when the firm is unable to introduce new ideas, develop new products, enter new markets and exploit new possible commercial synergies. When companies are no longer managed with a future-oriented view, maintain positive results overtime can be pretty challenging.
- *Crisis due to financial imbalances*: when there is a lack of shareholders' equity or poor cash and cash equivalents combined with high levels of debt (especially with a short term maturity) firms

are in a situation of financial imbalances. The result is poor bargaining power with credit institutions and difficulties in access to credit. Interest can raise due to the lack of reputation and making investment becomes more difficult.

Analyzing the developmental stages of the crisis path analysts have pointed out some common trends and relations among operating cash flows, enterprise value the value of debt and liquidation value, identifying three stages of crisis path in the three different stages of the crisis path: *potential crisis*, *reversible crisis* and *irreversible crisis*.

When firms are under a potential crisis, the main symptoms are a reduction in the operating cash flows and the related decrease of the enterprise value that strictly relies on positive cash flows. Moreover, especially if the company is listed, a reduction of the enterprise value can be easily reflected into a decrease of shares value due to share prices negative trend. The market capitalization reflect the equity value so, this ultimate reduction need to be balanced with an increase of debts in order to maintain a certain level of financing.

During the transition phase from potential to reversible crisis, the enterprise value of the firm still perceived higher than the debt value also if it is declining. However, this negative trend can have negative repercussions on firm's trust and reputation, accelerating value decrease: as soon as the crisis is perceived externally, indirect costs of distress arise. Examples are the increase of personnel turnover due to the lack of a safe future in the organization or the lost of bargaining power with suppliers and financial institutions that can easily take advantage of the sickness of the company in order to impose more strictly conditions. As a consequence of these factors sales could decline because customers will prefer to purchase from stable supplier that can ensure a long term safe supply. Moreover, if the company is no longer supported by positive revenues trend also the capital expenditure and the investment effort will gradually reduce making the company not appealing for new shareholders.

The critical point of a corporate crisis is reached when the firm's enterprise value is equal to debt value: the greater is the debt amount, closer the critical point of the crisis will be especially if manifestations of crisis are clearly perceived externally.

At this point in time, also the liquidation value is compromised due to the evidence on markets of poor performances that reduce the bargaining power of the firm. Liquidation value is defined as the total worth of a company's physical assets at the time in which it goes out (or want to exit) of business and it is determined by the overall value of its tangible assets such as real estate, fixtures, equipment and inventory.

The crisis is irreversible when the firm's value is lower than liquidation value. Under this situation, liquidation of the firm becomes the most economically convenient choice.

1.5 How to detect distressed companies

One of the main problem related to corporates' crisis is that, most of the times, managers do recognize a distress situation when it has gained the upper hand and the firm is no longer able to fulfill its obligations. In order to avoid that, or at least try to reduce the negative consequences, managers can try to look at some key indicators of distress that will be exhaustively analyzed in this paragraph.

A crisis path, as previously stated, goes through a series of linked stages, starting initially as a small and apparently irrelevant problem underestimated by the stakeholders and then becoming serious and not easy to sort out.

According to a research carry on by KPMG International (2007) there are some specific indicators that can be taken into account in order to understand if the examined company if distress. These are analyzed in the following table (Table 1).

Table 1 – Firms' signs of distress

Table 1 - Common signs of distress	
Indicators	Description
Performance	<ul style="list-style-type: none">- Lower level of liquidity- Poor covenants- Profitability has fallen and EBITDA is not sufficient to fund interest or financial commitments- Revenue has fallen despite growth elsewhere in the sector
Lender attitude	<ul style="list-style-type: none">- Lenders restrict the use or availability of funds- Request of implementation of reporting accounts
Corporate activity	<ul style="list-style-type: none">- Disposal of assets in order to eliminate losses or generate cash- No refinancing
Customers and supplies	<ul style="list-style-type: none">- Suppliers exert pressure for payment- Customers demand performance bonds or place contracts to competitors
Management	<ul style="list-style-type: none">- Focus on cash and cost rather than growth- Rapid changes in senior management and at the board
External communication	<ul style="list-style-type: none">- Delayed raults announcement- Profit warnings

Source: Re-performance from "The signs of stress and distress", KPMG International (2007)

Approaching the problem from a more technical point of view, managers can carry on a more in depth investigation through the performing of some index calculation and ratios based on the company's financial statement. This approach is commonly defined as *ratio analysis*. Indexes can be classified in three main groups: the *profitability ratios*, the *liquidity ratios* (short term) and the *solvency ratios* long term.

The profitability ratios are commonly use in order to asses the economic distress through the investigation of the profitability of the firm. Moreover, they are standardized indictors so they can be easily used a benchmark and compared with those of other companies belonging to same industry.

The most widespread ones are represented in Table 2.

Table 2 – Profitability ratios

Table 2 - Profitability ratios		
Ratio	Formula	Description
Return on Equity ROE	$\frac{\text{Net Income}}{\text{Shareholder's Equity}}$	This ratio indicates the profit that the firm is able to generate per each unit of equity capital invested
Return on Assets ROA	$\frac{\text{Net Income}}{\text{Total Assets}}$	This ratio indicates the revenue generating capacity of the firm's assets so at which degree of efficiency the management is using firm's assets
Return on Sales ROS	$\frac{\text{EBIT}}{\text{Total Revenues}}$	This ratio is also known as "operating margin" and it indicates how much profit can be generated per each unit of sales
Return on Investments ROI	$\frac{\text{Gain} - \text{Cost of Investment}}{\text{Cost of Investment}}$	This ratio can be used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. ROI measures the amount of return on an investment relative to the investment's cost
Return on Invested Capital ROIC	$\frac{\text{EBIT} * (1 - t)}{\text{WC} + \text{Fixed Assets}}$	This ratio measures how companies generate earnings from capital invested in their business.

Source: personal elaboration

Also if these ratios are extremely useful and easy to apply some limitations can be underlined. ROE, depending on shareholder's equity, is linked to the capital structure (E/E+D) of the company so, in order to make a proper comparison with other companies, management should be aware that the sample of comparable has similar capital structure.

Another situation for which the ROE produces anomalous results is the start-up phase: young companies also if they have huge future potential may have no or negative net income in the first years even though they have significant shareholder investment. The ROE for these companies is zero or even a negative. The same consideration can be done for distress and declining companies: in this specific case ROE is no longer relevant.

When using the ROA, it is important to be considered that it is rooted on total assets and not only the operating ones – so assets that do not participate at the firm's core activities are taken into account. Moreover, it does not evaluate firm's operating liabilities that, if greater than assets, in crisis times, are capable to reduce the total amount of equity required.

Other useful indexes are those related to firm's efficiency in which is taken into account the role of Working Capital (WC) defined as the difference between current assets and current liabilities. In other words, it represents the balance of resources needed by the firm in order to carry on its daily operations. The optimum level of WC depends on the industry in which the firms operate however, generally, it should be neither too high nor too low: a low WC capital reflects firm's liquidity cushion and in case of not expected outflows, it generates a shortage of assets. On the contrary, a high WC reflects the incapability of the firm to collect its credits or a too high level of inventory. Krishna G. Palepu and Paul M. Healy in their book "Business analysis and valuation: using financial statements", 2013

suggests some ratios that can be used to monitor working capital such as *accounts receivables turnover, account payables turnover, inventory turnover* etc. etc.

Other useful ratios are those related to the measurement of financial distress or the capability of the company to repay debt obligations when they are due, both in the short run than in the long one. Once again, Palepu (2013) makes a distinction between short-term liquidity and long-term solvency: in Table 3.1 and 3.2 a personal elaboration.

Table 3.1 – Short-term liquidity ratios

Table 3.1 - Short-term liquidity ratios		
Ratio	Formula	Description
Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	This ratio indicates the firm's ability to repay its current liabilities
Quick Ratio (Acid Test)	$\frac{\text{Cash and C. Eq.} + \text{marketable securities} + \text{accounts receivables}}{\text{Current Liabilities}}$	This ratio indicates the firm ability to meet current liabilities using only liquid assets
Operating Cash Flow Ratio	$\frac{\text{CFFO}}{\text{Current Liabilities}}$	This ratio indicates the firm ability to meet current liabilities using only the cash generated from its core operations

Source: personal elaboration

Table 3.2 – Long-term solvency ratios

Table 3.2 - Long-term solvency ratios		
Ratio	Formula	Description
Debt to Equity Ratio (D/E)	$\frac{\text{Short term debt} + \text{Long term Debt}}{\text{Shareholders' Equity}}$	This ratio is a measure of the firm's financial leverage: how much debt the company has related to the capital provided by the shareholders (equity)
Debt to Capital Ratio (D/D+E)	$\frac{\text{Short term debt} + \text{Long term Debt}}{\text{Debt} + \text{Shareholders' Equity}}$	This ratio is a measure of the firm's capital structure: how much debt is in use in relation to the overall capital employed by the firm
Equity to Capital Ratio (E/D+E)	$\frac{\text{Shareholders' Equity}}{\text{Debt} + \text{Shareholders' Equity}}$	This ratio is a measure of the firm's capital structure: how much equity is in use in relation to the overall capital employed by the firm

Source: personal elaboration

Several years ago, corporate finance fellows and financial institutions, understood the importance of predicting a possible future insolvency of a firm so, financial models has been developed in order to take into account multiple factors related to company's current financial condition that predict the probability of future bankruptcy.

One of the most well-known models is the “Z-Score” proposed by E. Altman (1968): this model “...combines traditional financial measures with a multivariate technique known as discriminant analysis...[in order to give] an overall credit score [to the firm being valued]”. Analytically, the general formula is:

$$Z \text{ Score} = a_1x_1 + a_2x_2 + a_3x_3 + a_4x_4 + a_5x_5$$

To each *factor (x)* corresponds a relative *weight (a)* that increase or reduce the effect on the final result. The overall credit score represents how likely is the firm falling into bankruptcy in the future. If the score is low then, the chance to be insolvent in future is higher. To build this model Altman

adopted the following five variables (from historical data) to explain a distress situation:

- $x_1 = \text{WC/Total Assets}$;
- $x_2 = \text{Retained Earnings/Total Assets}$;
- $x_3 = \text{EBIT/Total Assets}$;
- $x_4 = \text{Equity Market Value/Total Liabilities Book Value}$;
- $x_5 = \text{Sales/Total Assets}$.

From the analysis of historical data of both companies which have filed for bankruptcy and have continued as a going-concern, Altman also established the correct weights (a) that enable to distinguish between a critical and non-critical distress. Altman's resulting model for insolvency prediction is the following:

$$Z \text{ Score} = 1.2x_1 + 1.4x_2 + 3.3x_3 + 0.6x_4 + 1x_5$$

The *Z Score* formula takes into account both profitability ratios (such as EBIT/Total Assets) and liquidity ratios (WC/Total Assets); moreover, it considers firm's capital structure (Equity Market Value/Total Liabilities Book Value).

Actually, firms that have an overall credit score greater than 3 have to be considered as economically and financially "healthy", while those scoring less than 1.8 (up to reaching negative values) have to be valued as distressed ones. A score between 1.8 and 3 means that there are critical elements in the firms, thus additional in-detail investigations should be sort out.

All prediction models such as the Altman's Z-Score, as well as the ratio or other valuation methods, are deeply reliant on the appraiser integrity when performing the variables. Valuations tends to be always affected by a subjective component so what analysis can do is to combine their valuation with a larger overview of the environment in which the firm compete in order to provide a more reliable prediction of how firm' future is most likely to be.

1.6 Key aspects to consider when valuing firms in trouble

As stated in the previous paragraphs distressed companies have some peculiar characteristics that derive from their not wealthy conditions that can affect the valuation process.

Traditional valuation models are build up for the value calculation of firms with positive growth rates and that are able to generate positive incomes and cash flows if projected in a future of business continuity. If the assumptions on which the valuation models are rooted are not challenged when firms are characterized by declining revenues, declining operating margins and high levels of debt, the estimation of the intrinsic value of the firm can differ from the real one.

Damodaran (2009) stated that the application of *Discounted Cash Flow model* (DCF) as well as

multiple valuation to firms in decline or distress encounter several difficulties and can conduce to results that might be far from reality.

The basic assumption that all those who approach a valuation assume is that the intrinsic value of the firm is equal to the present value of free cash flows that the firm is able to generate during its entire life cycle, or in a horizon of time from five to ten years, because of the complexity to estimate the future of a company for a longer range of time. However, this application can hide some issues:

- *Existing assets*: in many declining firms, existing assets, even if profitable, earn less than the cost of capital. This yields a value that is less than the capital invested in the firm. When existing assets earn less than the cost of capital, the logical response is to sell or divest these assets and hope that the market is willing to pay a price with a premium for them. However, from a valuation perspective the divestitures of assets create discontinuities in the normal trend of past investment that result into an abnormal positive Capital Expenditure. Moreover, estimates long term proceeds that the company can gain from assets' divesture can be tricky because it is not easy to estimate the value at which assets can be monetize at a certain point in future. The firm bargaining power can change due to distress and assets can be undervalued from the market.
- *Growth assets*: when a firm is declining, it generates little value from growth assets and their valuation do not have a significant impact on the overall value. While this is generally true, there is the possibility that some declining firms are in denial about their status and continue to invest in new assets, as they had growth potential. If these assets earn less than the cost of capital, the value obtained by adding new assets will be negative and reinvestment will lower the value of the firm.
- *Discount rates*: corporate crisis affects in different ways the cost of capital at which we discount future cash flows to determine the enterprise value of the firm. A common feature related to declining companies is the payout of large dividends that can negatively affect the overall value of debt and equity of the firms on which depends the calculation on the discount rate. When companies pay dividends, there is a reduction of the value of equity that, unless debt is rapidly repaid, will affect the debt-equity ratio generating an higher level of debt if compared to the pre-dividend repayment one. The higher debt ratio will affect the overall cost of capital because of the higher proportion of cost of debt. Another related causes is the increase of default risk due to the reduction of equity in the overall value of the firm (D+E).

Firm rating will be negatively affected too (i.e. BBB or C) and this will let shareholders dissatisfied seeing more volatility in their earnings: cost of equity will increase too.

- *Terminal value*: the terminal value is the present value at a future point in time of all future cash flows that are determined estimating a growth rate that a firm can sustain in perpetuity, with the condition

that the growth cannot exceed the growth rate of the economy. At this stage of the valuation process, declining and distressed firms pose special challenges.

First of all, the analyst should not take for granted that the firm will achieve any stable growth because liquidated or out of the competition. Moreover, even if a firm can continue its operation and reach a steady state, the expected growth rate in perpetuity may be below the growth rate of the economy and inflation or negative.

Secondly, the biggest estimation issue comes from declining firms that are earning below their cost of capital, with no reason for an optimistic future. The most reasonable assumption is that the firm will continue to earn a return on its capital that is below the cost of capital in perpetuity. This will have consequences for both reinvestment and the terminal value. The last problem is related to discount rates and the practical computation of the terminal value: if the cost of equity is extremely high the terminal value can collapse.

Fortunately, DCF is not the only approach to valuations however, relative valuations (comparable and multiples) have some limitations too:

- *Scaling variable*: all multiples have to be scaled to common variables, which can be broadly categorized into revenues, earnings, book value or sector specific measures such as the numbers of subscribers to a certain website. Dealing to distressed companies, earnings and book values can become irrelevant to: a ratio with a negative denominator makes no sense for example $EV/EBITDA$ if earnings are negative and can become difficult to compare among other players in the industry. An approximately solution can be to scale values to revenues, implicitly assuming that the firm will be able to restore its operations and deliver positive earnings.
- *Comparable firms*: two possible scenarios can be faced when valuing declining firms. On the one hand, the industry can be composed healthy and growing firms and the only one that is distressed is the valued one. Because of the market values declining firms differently from those that are healthy, the challenge is to determine the discount the declining level that a firm should trade at, relative to the values being of healthy firms. On the other hand, if the industry is composed by other distressed companies, the choice of what multiple should be used become more limited and analysis have also to consider how to adjust multiples for the degree of decline of the specific firm.
- *Incorporating distress*: when firms are not only in decline, but they are also reputed as distressed, they will usually trade at lower values (and hence at lower multiples) than firms with lower probability of distress. There will be a group of firm undervalued and one that will be overvalued.

Intrinsic valuations and relative ones are highly connected and any issues that affect one of the two methods have a reflection in the other one. The symptoms of decline are too relevant to be hidden

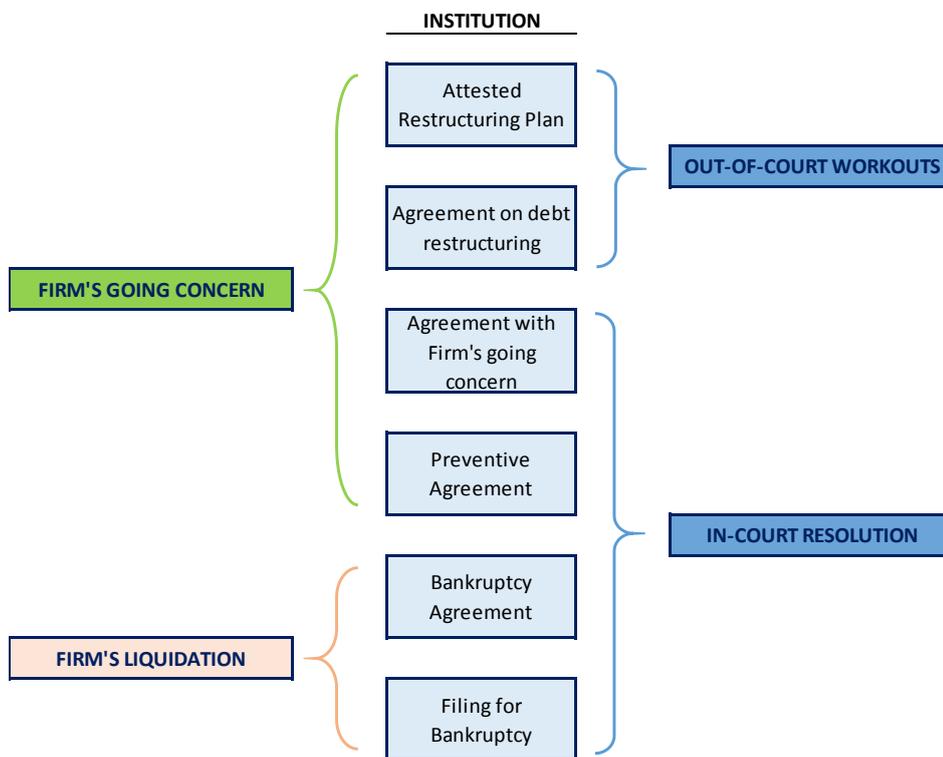
into multiples.

1.7 Corporate crises: an Italian prospective

During the life of a distressed firm can unfortunately occurs that the company is no longer able to cope with obligations it has undertaken with creditors so, the Italian legislator has provided to companies' shareholders and managers a series of tools to deal with financial distress. Two different levels can be defined: the *out-of-court workouts* and *in-court resolutions*: the first option entails the stipulation of private agreements between the firm and its creditors on how to resolve the crisis while, in the second alternative, distress is resolved through a court-assisted process.

In Figure 2 is presented a global overview of the possible out-of-court workout types and in-court resolutions provided by the Italian legislator.

Figure 2 – Legal institutions provided by the Italian legislator to deal with distress



Source: Personal elaboration

The ratio behind this institution is the one to protect the firm's going-concern, thus shareholders are provided with more defensive rights with respect to credit holders, especially with the last modifications to the Bankruptcy Law in 2015 (d.l. 27 giugno 2015 n.83).

Nevertheless, creditors are in a strong position because they can vote among different available options concerning the firm's future and they obviously choose the one that is more convenient from

their perspective that is, the one able to guarantee them the highest return, weighted by such factors as certainty of payment and required time. Creditors are ranked according to the type of credit that they owe with the distressed firms: there is a multi-stages level of priority in the case of debt repayment. Creditors, according to their ranking, might prefer opposite future plans. The higher priority creditors will favor less risky plans able to guarantee full repayment only to senior debts, while lower priority creditors will vote for more risky projects able to satisfy also unsecured or junior debts. That is why it is necessary majority consensus in the voting. Creditors have to express their preference among these options:

- Going-concern plan proposed by firm's current shareholders: usually this is a plan that entails radical changes, since shareholders have everything at stake (it might also implies changes in current firm's management if it is considered responsible for the distress situation).
- Going-concern plan that entails new owners but same firm's assets: this plan is usually formulated by people outside the firm, who often have a very different vision of the company with respect to that of firm's current shareholders and managers.
- Going-concern plan involving an M&A transaction: this plan main objective is to exploit potential synergies the firm can obtain through the merge with other companies. Moreover the distressed firm can become the target of another firm that is interested in acquire a assets, know-how, technology, brand which, if developed in-house, would be more costly to obtain. Obviously, under this scenario, there is a change in debits ownership.
- Firm's total liquidation: the firm files for bankruptcy and it finally ceases to exist. The assets are sold in a public auction, and the proceeds are used to repay creditors' claims.

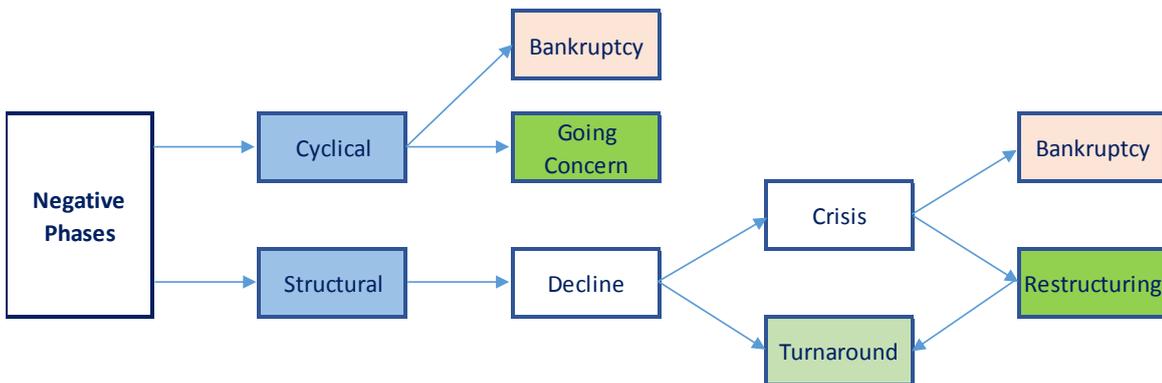
According to the different debt-repayment path that the company follows in order to repay its debt, the appraiser have to consider different results in terms of possible returns, time horizon and underlying risks. All going-concern plans are generally based on a reorganization process called *turnaround*, aimed mainly at bringing company back to a situation of economic-financial equilibrium. Generally, a turnaround plan, explains in details the main players involved in the company rescue, the competitive strategy and the business model that will be adopted in order to face this distress situation, the necessary implementing actions such as the debts restructuring program and the sources of funds used, the future financial projections and the expected results. The economic literature presents four main types of turnaround strategies:

- *Restructuring*: it aims at increasing the efficiency of production processes, reducing fixed costs and improving both the financial and asset management maintaining unchanged the competitive

strategy;

- *Reconversion*: it entails a change in competitive strategies with a specific focus on new markets to enter and new products combinations in order to attract a new customer base. The implementation of a new strategy is usually related with relevant expenses as to realign firm's assets to the new business model.
- *Downscaling*: it implies the downsizing of the firm size, especially concerning the human resources and the assets dedicated to unprofitable business units. A general costs reduction and major focus are the ultimate objectives of this strategy.
- *Reorganization*: its goal is to improve firm's management and governance structure, as well as internal control system and planning practices. The new organizational structure will be more efficient implying lower wastes inside the company.

Figure 3: Negative phases path



Source: Personal elaboration from “Il processo di risanamento dell’azienda in crisi”, A. Mazzoleni, E. Giacosa

The restructuring plan can be spitted into several phases that, in order to be successfully achieved they require different implementation strategies, time to actions and managerial skills. Moreover, different objective and relations between the market and its products or services characterize each phase. In the following tables (Table 4) the main indicators are summarized.

Table 4: Corporate crisis and turnaround

Table 4.1 - Corporate restructuring and turnaround			
	Emergency phase	Stabilization phase	Turnaround
Objective	The firm has to survive to the crisis and find an equilibrium	Earnings generation and shareholders' new faith	Market share increase
Strategy	Investment reduction or divestiture, non core expenses elimination	Divestiture, product marginality increase, make or buy choices in order to increase the operational efficiency	Merger, new product or market development
Time	6-12 months	12-36 months	3-5 years
Instrument	Restructuring Plan		

Table 4.2 - Corporate restructuring: market side			
	Emergency phase	Stabilization phase	Turnaround
Objective	Cash generation	Products profitability	Market share increase
Market share	Current market share protection	Effort to reach high marginality market segments	Key player in all segments
Price	Price increase (also if volumes need to be reduced)	Maximum profitability	Competitive price to be attractive in all market segments
Sales Promotions	No	Only if no option	Yes
Existing Products	Write off low marginality products	High marginality	Increase volumes
New Products	No	Careful selection	Yes, also driven by M&A

Source: D. B. Bibeault, 1999, “*Corporate Turnaround: how managers turn losers into winners*”

After the various parties have proposed the going-concern plans with the relative different turnaround strategies, there is usually a negotiation of the main terms, in particular concerning the debt renegotiation and/or repayment. If the majority of creditors agree on a specific plan, preferring it then the firm’s liquidation, then it is implemented and performed. The compliance between firm’s actions and this plan are constantly checked and the required adjustment can be done according to the projections to actual developments.

As stated before, the Italian Bankruptcy Law provide some specific institutions that have to be respected. An analysis is provided.

1.7.1 Attested Restructuring Plan – “*Piano Attestato di Risanamento*”

The Attested Restructuring Plan, ruled by art.67, co.3, lett. *d* of the Bankruptcy Law and integrated by the dispositions of art. 217-*bis*, by art. 263-*bis*, represents the actions that distressed firm’s shareholders or entrepreneurs can undertake in order to resolve the situation of financial distress and bring firm back to financial equilibrium. The Plan is not necessary the result of an agreement with creditors. In general, the Plan is based on: (i) an agreement with new creditors willing to fund the firm; (ii) an agreement with financial partners different from creditors; (iii) shareholders’ initiatives such as equity increase from private equity firms. As clearly stated in the whole literature related to non-ordinary operations, the firm’s financial statements, as well as the Plan have to be

guaranteed by a qualified and independent professional.

This process cannot be valued as an option if the distressed firm had already started a liquidation process. The Attested Restructuring Plan is particularly suitable for those restructuring plans proposed by distressed firm's shareholders or for those that have to repay a limited number of creditors.

This institution is the less invasive options available in order to resolve financial distress: the management still in charge of the strategic guide of the company and there is no court intervention.

1.7.2 Agreements on Debts Restructuring – “Accordi di Ristrutturazione dei Debiti”

The Agreements on Debts Restructuring is ruled by art. 182-bis and integrated by art.67, co.3, lett. e. Debt restructuring consists of an agreement for debts restructuring with creditors representing at least the 60% of firm's debts: the restructuring feasibility and the reliability of the financial statement have to be certified by a qualified and independent professional, particularly in respect of its ability to entirely satisfy non participating creditors within 120 days from the approval of the above-mentioned agreement. The Agreement is binding for compliant creditors only: those which do not participate have to be entirely repaid.

The court has to approve the Agreements and it makes a distinction between objective and subjective prerequisites: the objective one is a demonstrate situation of crisis whereas the subjective prerequisite prescribes that only the shareholders or the entrepreneurs can apply for this instrument, but it does not exclude the possibility that non-insolvent firms can apply for this tool.

The Agreements on Debts Restructuring are particularly useful for those restructuring plans where distressed firm's liabilities are concentrated in a small number of financial creditors, so that it is easier to obtain the required 60% of acceptance. However, it might be problematic the requirement that non-participating claim holders have to be entirely repaid, given the firm's situation of financial distress and thus of lack of liquidity.

1.7.3 Preventive Agreement – “Concordato Preventivo”

The Preventive Agreement, ruled by art. 160 and supervised by the court, supports the distressed firm in obtain an agreement assuring creditors extensive protective rights. The agreement with creditors is reached only through a majority consensus, so the minority of creditors are actually dispossessed of their rights.

The aim of this institution go further the resolution of firms' crisis before the firms file for bankruptcy: it favors distressed firms to undertake a restructuring process in order to achieve a going-concern

situation. Basically, the firm stops its operating activities from the moment in which the company applies for this institution; then, the court appoints a judicial commissioner who evaluates the firm's condition in order to check whether or not the firm possesses all the requisites to receive the Preventive Agreement. The feasibility of the process has to be certified: the company should have some unexpressed potential and do not risk falling into bankruptcy in the imminent future.

The role of the judicial commissioner appointed by the court is crucial for the firm's destiny: in particular, his assessments and evaluations have a major effect on the creditors' voting preferences.

The Preventive Agreement is an effective instrument for whichever firms that aim to solve its crisis exploiting the fact that, if the majority consensus of creditors is reached, then it is binding also for dissenting claim holders. Furthermore, it is the institution that, together with the Agreement with Firm's Going Concern, is able to bring crisis to light earlier, because through this instrument shareholders are induced to reveal crisis' signals early, so that they can enjoy more protective rights.

An adjusted version of the Preventive agreement has been introduced in 2012 and it is ruled by the art. 186-bis. The *Agreement with Firm's Going Concern* is mainly used in the case creditors want the firm to continue in its operations and, if compared with the Preventive Agreement, it results more dynamic because it allows the firm to keep going on while dealing with the restructuring plan and bureaucracy.

1.7.4. Filing for Bankruptcy – “Dichiarazione di Fallimento”

The Title II, Chapter I, describes the Filing for Bankruptcy: the company will cease to exist and all its assets will be sold separately in an auction; the proceeds are used to repay firm's creditors. The procedure formally starts with a declaration of Bankruptcy, which can be filed by both the debtor itself or the creditors. The prerequisite is nothing more than a demonstrated insolvency condition: shareholders should be no longer able to satisfy their obligations.

To summarize, companies' distress can be faced through an asset restructuring or through a debts restructuring plan. According to the Italian Bankruptcy Law, the aim of the regulator is the one to let creditors and debtors fulfill a common achievement in the optic of firm's going-concern. If the distressed company is not able to find a deal with claim holders, then it will be obliged to file for bankruptcy and all its assets will be sold separately in an auction in order to satisfy creditors.

Chapter 2 – How to apply valuation models to distress companies

2.1 Introduction

The academic literature offer a wide range of studies related to the most different valuation techniques. The aim of this chapter is to provider the reader with an highlights of the most used valuation methods and the related adjustments that has to be dome when valuing distressed and declining companies.

Before presenting the valuation techniques, it is important to analyze some unique characteristics related to the valuation of the economic capital of distressed firms.

As stated by Damodaran (2009), “...*although the fundamentals of valuation are straightforward, the challenges we face in valuing companies shift as firms move through the life cycle*”. Valuation models have been developed for firms with both positive growth and profitability margins: thus, when these methods are used to value firms in decline or distress, their application results challenging and provide a numerical value (enterprise value) that may not reflect the reality.

The aim of the valuation is to synthetize in a single value all the elements that contributes to the value creation process through which the company evolves during its life. To do that, those who are in charge of the valuation have to inevitably make some estimations and approximations. The higher the level of uncertainty that characterized the company and the markets in which it compete, the higher will be the need of estimations. For these reasons, G. Liberatore (2014) affirmed that every valuation technique is partially incomplete: each models tend to be focus on few of the many features that are related to a certain firm: the best valuation model is not the most comprehensive one, but the least partial.

In 2006, Crystal and Mokal (the latter is a professor of Law at UCL), stated that the level of uncertainty related to valuation models is increased by some “strategic factors”: the holders of senior claims (those who have priority claims with respect to the others claimants) have an incentive to undervalue the firm’s business, while claimants who are in a low position of priority have an incentive to overvalue the business.

Let us go through this example to better understand: a distressed company is going to be merged with a third party and constitute a new entity with the acquirer: the value of the distressed if defined as “X”. If X is greater than the value of senior liabilities (debs with priority), then senior and junior claimants would receive shares in the new entity having both effective right against it. However, if X is lower than the value of senior liabilities, only senior claimants would receive shares in the new company, making them end up with a greater net worth. Here is why senior claimants have an interest in demonstrating that the value of distressed firm is lower than what really is whereas junior claimants have the opposite objective.

Another empirical research that perfectly demonstrate the level of uncertainty and subjectivity that is hidden behind valuations, especially those of distressed companies, has been conducted in 2010 by S. C. Gilson, former chairman of Finance Unit at Harvard University. Gilson considered a sample of distressed companies which were implementing a process of turnaround (restructuring) and evaluated them using DCF and comparable firms' multiples, basing the projections on management's published cash flow estimates; then, he compared the obtained firms market value with the one computed by the firms themselves. The result was a dissimilarity that ranges from less than 20% to more than 250% which cannot be due to errors of estimation: the valuation discrepancies were obviously attributed to a lack of complete information about the firms, but most importantly to strategic biases associated with incentives of claimholders to distort the firm's value.

In the case of companies in "normal" economic and financial conditions, the valuation process is usually performed in a going-concern perspective that is, considering the firm as an entity that will continue its operations also in the future. However, in the case of companies in distress the lens through which the valuation is performed usually change. For example if the company is seriously distressed the decision related to its future will be taken not only by the management but also by its creditors that will be easily pitch an end term prospective.

Thus, the role that firm's economic valuation has for distressed companies is unique because it forms the basis on which creditors can take responsible and convenient decisions concerning the firm's future and their related capital.

The object of the valuation, in a distressed context, is not the equity (Altman and Hotchkiss), but rather the enterprise as a whole: the aim of the valuation is to check the value created by firm's assets as a result of a unique combination of all factors and forces affecting the firm's value creation process that in this specific case can match a restructuring/turnover plan. That is why corporate valuation becomes a critical subject also in the turnaround process. Once that the plans and actions that the firms has designed for its future development has been approved, the appraiser can start valuing keeping in mind to make conservative assumptions due to the distressed context.

According to Damodaran, when valuing the enterprise value of a distressed firm, the value of the outstanding debt should be calculated by trying to update it to its current market value, rather than just taking the last data available in the company's financial statements.

The focus of the following paragraphs is to understand the driver of complexity when valuing distressed firms. The aim is to practically illustrate what are the appropriate methods to deal with estimation of the probability of default, direct and indirect distress costs and liquidation value.

2.2 Discounted Cash Flow Model

The *Discounted Cash Flow (DCF)* model is rooted on the concept that the estimation of company's value is the present value of future cash flows discounted at an appropriate discount rate: *the weighted average cost of capital (WACC)*.

Four fundamental steps mainly compose this process:

- The valuation of the business *enterprise value*, which is equal to the present value of the operating free cash flows (FCFO) that the firm will be able to generate in the future (in usually in a range from five to ten years) discounted by the cost of capital.
- The identification and valuation of non-operating assets, such as marketable securities, non-consolidated subsidiaries and other non-operating investments. The sum between the core business value and the value of non-operating assets is the enterprise value of the firm, which is the economic value of corporate activity.
- The determination of *market value* of the firm's consolidated *net financial position (NFP)*, minority interests and other non-equity claims, such as *unfunded pension liabilities* and *employee stock options*. The estimation of the market value of the NFP can result tricky so, what happen in practice, is to use the net financial position resulting from the financial statement as an approximation of the market value. The problem related with distressed companies is that the market value of debt can evolve more drastically and often than how happen with normal firms.

In order to value the firm's net financial position accurately, Damodaran suggests:

- Update frequently the debt amount, even if this could be difficult for an external analyst especially when the firm conducts private negotiations with the creditors.
- Estimate frequently the market value of debt as the *probability of default* can varies significantly from period to period: the nominal value of debt cannot be used as an approximation of the market value of debt in distressed firms.
- The determination of the equity value. In a simplistic view the enterprise value is the sum of the equity value and the debt value, or better of the NFP that is the sum of the financials debts (long and short terms) minus cash and cash equivalents.

Analytically, equity value can be computed as follow:

$$\text{Equity} = \text{Enterprise Value (EV)} - \text{Net Financial Position (NFP)} - \text{Minorities}$$

Moreover, the enterprise value, in the light of what explained in the previous lines, is analytically represented by the following formula:

$$\text{Enterprise Value} = \sum_{t=1}^n \frac{FCFO_t}{(1 + WACC)^t} + TV$$

where:

- ❖ $FCFO_t$ is the free cash flow from operations at a certain year t ;
- ❖ WACC is the weighted average cost of capital
- ❖ TV is the present value of Terminal Value that is represented by the cash flow projection from the year $n+1$.

In order to make this widely used model useful, the analyst has to estimate a wide numbers of inputs that can make the valuation pretty challenging especially if firm is in financial distress. The main barriers can be negative earnings and cash flows, difficulty to meet debt payments and high leverage ratio. The solution to the problem depends, to a large extent, on how distressed the firm really is. If distress is expected to be not fatal, in the sense of pushing the firm into liquidation, there are various potential solutions. If, on the contrary, distress is likely to be terminal, finding a solution is much more difficult.

The first three aspects the analyst has to estimate when approaching a DCF valuation are *Cash Flow Projections*, *Discount rate* and *Terminal Value*.

The academic and financial literature related to an in depth explanation of this three measures is absolutely wide and detailed so I will just briefly go through their analysis focusing only on what is relevant in the field of “distress companies valuation”.

In order to predict cash flow analysts have to assume the growth rate of the key value drivers such as revenues, earnings (and that implies costs too), capital expenditure and working capital. What especially important in this first phase is to define the business plan and clearly state which are the future objectives and success factors of the company. To do that, analyst usually base their assumptions on historical data however, in this case, they should rely at restructuring plan that makes detailed assumptions about cash flows during the transition period from distress to financial health: the discounted cash flow valuation may still be feasible. The valuation accuracy is clearly linked to the assumptions about probability to restore financial health, length of transition period and projections.

In case of distressed companies, the explicit forecasting period will cover at least the entire restructuring plan, to evaluate the impact on value by the proposed financial and operating interventions.

However, it is important to consider the risk that the firm could truncate the cash flows suddenly, ceasing the operations before reaching the steady state. This risk is not explicitly taken into account into the DCF model so some alternative scenarios adjusted for the probability of default have been developed.

One of the main steps in the DCF calculation is to predict a reliable and correct *weighted average cost of capital (WACC)* also because it has a huge impact on the overall enterprise value.

WACC is the weighted average between the *cost of equity* and the *cost of debt* as shown in the following formula: $WACC = \frac{D}{D+E} (1 - t) k_d + \frac{E}{D+E} k_e$

The widely use method to determine the cost of equity is the *Capital Asset Pricing Model (CAPM)*, where the cost of equity is the sum between the risk-free rate and the risk-market premium multiplied by a beta coefficient which expresses the systematic risk of the investment. Analytically, the cost of equity formula is $K_e = r_f + \beta(r_m - r_f)$.

The cost of debt, instead, is the interest rate at which the firm is able to obtain long term financing under actual market conditions such as long-term bonds rates or the *rating class* associated with the firm. In this second scenario, the analyst should add to the risk-free rate a *default spread*, determined based on the company's financial health. The higher the rating class of the company, the lower the spread will be.

When computing the cost of debt for distressed firms some precautions must be taken into account in order to get an underestimated value. For example, as stated before, the capital structure from which derive the ratio between debt and equity (D/E) should be evaluated using market values and not nominal ones. To do that, analysts usually adopt the average capital structure of comparable firms however, in the scenario of distressed companies, a constant capital structure for the entire valuation period represents a great limitation especially if firms are highly leveraged or under restructuring. According to Damodaran, the common approach to estimate the cost of equity through CAPM will lead to inconsistent estimates of WACC in presence of high probability of default associated to the firm because the estimate of coefficient beta is only based on historical data and it do not incorporate the effects of the recent crisis situation

If we estimate beta as a regression analysis, during a specific time horizon, this beta tends to underestimates the risk associated with the firm because the historical data do not incorporate the effects of the recent crisis.

In order to overcome this obstacle two different scenario have been proposed:

- *CAPM betas adjusted for distress*: the beta is computed through the *unlevered beta* that is average of the unlevered betas for comparable firms in the same industry adjusted for the relative capital structure:

$$\beta_L = \beta_U + \frac{D}{E} (\beta_U - \beta_D)$$

Distressed firms are highly leveraged so they often do not get any fiscal advantages of debt

(tax shield) due to insufficient income.

- *Distress Factor Models*: in this approach, the cost of equity is computed adopting the average beta derived from comparable “healthy” firms plus a *distress risk premium* representative of the risky conditions linked to the crisis for the firm being valued.

$$K_e = r_f + (\beta_{healthy} * Equity Risk Premium) + Distress Risk Premium$$

Distress risk premium can be considered as a proxy of the returns gained by a stock of a firm in crises or by a comparison between the specific pre-tax cost of debt of the firm and those of comparable firms in the same industry.

Referring to cost of debt in a distressed scenario, the appraiser should not estimate it as the interest rates associated with corporate bonds traded on the markets (conventional approach). However, cost of debt has to be computed as adopting an interest rate based on the rating associated with the firm's corporate bonds, which reflects the higher probability of default: *Pre tax* $K_d = r_f + default\ spread$

However, only few firms, if compared the overall sample can issue own bonds in the market. The practical solution for those which do not have a specific rating class is to rely on a synthetic estimation of the rating using the *interest rate* obtained by dividing the interest expense by the book value of debt.

Moreover, it is important to highlight why the appraiser should consider the pre-tax cost of debt: interest expenses are tax deductible so, the after-tax cost of debt for most firms is lower than the pre-tax cost of debt. This benefit can be easily obtain multiplying the pre-tax cost by (1- tax rate). Nevertheless, in order to get a tax benefit from interest expenses, the company has to perform an operating income that is sufficient to cover these interest expenses. To the extent that the firm has lost money, and is expected to keep losing money, no tax benefits from debt for extended periods will be achieved.

As every steps in the valuation process, the discount rate too, has to reflect the distress and change over time consistently with the assumptions about future profitability and financial health of the company.

The last value taken into account when approaching a DCF and that can have considerable implication when valuing declining companies is the Terminal Value (TV). It represents the value of the operating cash flows after the explicit projection period and it generates huge part of the overall firm's value. It usually refers to the period in time in which the company reaches a stable and in perpetuity growth.

In order to provide an exhaustive explanation, TV can be computed using the *Gordon Growth Model* formula:

$$TV = \frac{FCF_{t+1}}{WACC - g}$$

The *perpetuity growth rate* (g) should be equal to the long term growth rate of the firm, considering that no firm can grow at a rate that is higher than the growth rate of the economy in the long term. This approach assumes that the firm being valued operates as a going concern and its life is potentially infinite. However, in presence of high probability of default this assumption is not realistic and ignore the possible effects of distress leading to a misleading valuation.

Nevertheless, the DCF model can be considered a valid method to valuate distressed firms because it is sufficiently able to represent the consequences of distress such incorporating the probability of default in the discount rate.

Risky firms will have a higher cost of debt and equity that will result in an higher overall cost of capital that will affect the discount rate and it will reduce the present value of the expected cash flows. In a pessimistic scenario as the case of a concrete default, the firm will be able to obtain expected cash flows from the proceeds of a liquidation assuming that the firm can be sold to the best acquirer at a price equal to the present value of expected cash flows. However, we have to critically challenge this assumption because in case of a liquidation, firms tend to lose their bargaining power and most of the times they are no longer able to get a sale price equal to the fair value resulting from the valuation.

To synthetize the above consideration, the DCF valuation is not deeply affected by distress if the following conditions are met:

- There is no possibility of default for the firm, given the size, conditions or government guarantees.
- Capital markets can be access allowing the firm to carry on investment opportunities obtaining fresh equity or debt, even during crisis or recession periods and avoiding a potential liquidation.
- It is possible to incorporate in the computation of the expected cash flows the probability of default and consequently adjust the cost of capital by the increased risks related to the distressed situation.

If only one of these conditions are not present when valuing the firm, the DCF approach can produce an estimate of value that is higher than intrinsic value of the firm.

To avoid this bias, some concrete adjustment to the DCF model can be applied. They will be examined in the following paragraph.

2.2.1 Scenarios analysis: adjustments to DCF model

The main adjustments to the DCF method concern the free cash flows estimation and discount rate calculation.

According to Damodaran, there is the necessity to incorporate in the expected cash flows, the probability the firm can cease to exist because of the crisis situation.

In a scenarios analysis, the free cash flows are estimated for all the possible scenarios, from the most optimistic to the most pessimistic one, and it is assigned to each one a specific probability

A scenario analysis has to reflect different assumptions regarding the future of the company studying different operating strategies, macroeconomic and environmental events and financial policies. Everything has to be supported by a feasibility analysis in order to predict not reliable prospective. Concretely:

$$Expected\ Cash\ Flow_t = \sum_{j=1}^n \pi_{jt} * CF_{jt}$$

where:

- π_{jt} is the probability that a certain scenario j will occur at a point in time t .
- CF_{jt} is the cash flow of the firm in the specific scenario j at a point in time t .

The huge limitation of this approach is that the estimation of the all probabilities associated with each possible scenario, for each forecasting period, is highly difficult and it implies to undertake several valuations.

However, to overcome this limitation, Damodaran suggested a shortcut that implies the consideration of only two possible scenarios: the *going concern* (the case in which the company will continue its operations in future) and the *distress scenarios*.

According to S. Srinivasan, professor at Harvard University, since January 1, 2007, Morgan Stanley has required its analysts to supplement their forecasts of a firm's *expected* valuation (the *base-case* valuation) with scenario-based forecasts that capture the most likely upside and downside valuations. These three scenario-based forecasts reflect different outcomes of such *state-contingent* factors as competition, new product launches, regulatory changes, changes in market demand, and macroeconomic conditions. By creating a parsimonious, state-contingent distribution of valuation forecasts for each firm, Morgan Stanley's forecasting framework allows analysts to systematically inform clients about the covered firm's return potential and its jointly determined risk factors.

This slightly alternative approach has been sponsored by G. Weyns, that at that time was the Managing Director of the Valuation Team at Morgan Stanley: what he stated was that the level of complexity of the analysis can be set at three possible scenarios: the best, the worst and the most

probable one.

Adopting the approach suggested by Damodaran, in the first case the appraiser assumes that the continuity perspective is not affected and the firm is able to restore its going concern situation. Instead, the distress scenario includes all possible effects, which derives from a potential state of insolvency.

In this case the proceeds deriving from the liquidation process or the sale, partial or total, of firm's assets are taken into account and the expected cash flow for each year of forecasting can be calculated as follows:

$$\text{Expected } CF_t = CF_{\text{going concern},t} * \pi_{\text{going concern},t} + CF_{\text{distress},t} * (1 - \pi_{\text{going concern},t})$$

where π_t is the probability that the firm will survive or not (according to the related scenario) until time t .

The probability of default has to be estimated for each year using the formula presented in the previous paragraph whereas, the probability of survive until time t can be computed as follows:

$$\text{Probability of survive}_t = \pi_{\text{going concern},t} = \prod_{i=1}^n (1 - \pi_{\text{distress},i})$$

where $\pi_{\text{distress},n}$ is the probability that the firm will result insolvent at time t .

Also this model presents some limitation, such as the difficulty in correctly estimate the probability of default and survive for each forecasting period.

Despite of that, scenarios analysis are an effective tool that can be applied in case of moderate risks.

2.2.2 Going concern DCF adjusted for the probability of default

An alternative approach can be delivered if the appraiser decides to separate the assumptions about going concern value from those, which deal with the effects and consequences of distress.

This alternative hugely simplifies the valuation process being able to overcome the limit of overall scenario consistency typical of the DCF model.

Under this lens, the firm's enterprise value is equal to the weighted average between the going concern value and the liquidation value where, weights are based on the probability that the firm will result insolvent or not, during the forecasting period.

Analytically, this approach can be synthesized with the following formula:

$$\text{Firm Value} = \text{Going concern value} * (1 - \pi_{\text{distress}}) + \text{Distress value} * \pi_{\text{distress}}$$

where π_{distress} is the cumulative probability that the firm will be distressed during the valuation period.

An alternative option, in order to compute the going concern value of the firm, is to appraise other firms belonging to the same industry which are in good financial conditions. In this way, it is possible to value the firm as in healthy condition by using basing the analysis in the industry average operating margins and the related industry cost of capital.

The limitation of this approach is that, if competitors are performing much above the target of the analysis, the firm that has to be value can result overvalued. The information about comparable firms has to be critically challenged.

Once again, according to Damodaran, if the market does not provide enough information, the *liquidation value* (or distress sale value) can be obtained performing the following steps:

- Discount the value of the firm obtained from DCF method being aware that the estimation of a fair percentage discount it is not easy to determine.
- Calculate the value from expected cash flows without considering new investments (capital expenditure) and assuming that in case of liquidation the acquirer will just pay for existing assets and not for future growth opportunities.
- Apply a discount on book value of assets based on historical transactions of comparable firms. To do that, the analyst has to estimate the cumulative probability of default over the period and this can be derived from the formula previously explained, related to the probability of success.

The probability of success has been defined as $\pi_{going\ concern,t} = \prod(1 - \pi_{distress,t})$ then, the probably of default can be estimated as $\pi_{distress,t} = 1 - \prod(1 - \pi_{distress,t})$.

2.3 Adjusted Present Value

A consistent branch of corporate finance fellows, from Modigliani and Miller to Altman and Hotchkiss have been involved in researches related to the capital structure and its relation with firm's value.

As explained before, distress companies are highly leveraged, so when applying a DCF method the WACC cannot be simply adjusted assuming a target between debt and equity.

The *Adjusted Present Value (AVP)* method takes explicitly into consideration the effects of the firm's capital structure and determine the levered value of the firm starting from its unlevered value and then adding the benefits and costs deriving from capital structure.

The unlevered value of the firm is simply determined predicting the expected unlevered cash flows and discounting them at the cost of equity without considering debt.

Moreover, the fiscal benefit deriving from debt will be added back also if, according to Damodaran, during crisis the fiscal benefit of debt is almost irrelevant due to decreasing or negative EBIT and the consequent no tax-shield effect.

Furthermore, the appraiser, has to consider the leverage effects on default risk and the both direct and indirect costs associated with a default. So:

$$EV = \text{Unlevered value} + \text{fiscal benefits} - \text{cost of default}$$

that can be seen as:

$$EV = \sum_{t=1}^{\infty} \frac{FCF_{unlevered}}{(1 + WACC_{unlevered})^t} + \sum_{t=1}^{\infty} \frac{\text{Tax shield}}{(1 + K_d)^t} - PV_{\text{cost of default}}$$

where the first term represents the value of the firm financed only by equity, the second term is the value of tax shield on debt and the third term represents the value of the expected costs in case of default weighted for the probability that this event can occur.

To compute this last value, Damodaran, suggests to consider the difference between the going concern value and the liquidation value of the firm.

Altman instead provides another possible root and he suggests to discount the product between the historical probability of default of the firm and the costs associated with a risk-neutral probability. Moreover, according to the asset-pricing literature, there is a systematic component in the firm's risk of default that requires to be adjusted to estimate the ex-post costs of default using the corporate bond credit spreads to determine the *market-implied risk-adjusted probability of default*, increasing the impact of default on enterprise value.

This methodology requires the necessity to estimate correctly the probability of default of the firm and to remember that in case of income losses, the firms will not have any fiscal benefits from debt. The value of debt can be difficult to estimate in the long run, so a common adjustment is to estimate a target capital structure valid for the long run too.

To do that, the appraiser combine the Adjusted Present Value method with Discounted Cash Flow method to value the firm: during the forecasting period, the APV method can be applied whereas the terminal value is determined through a DCF discounted at the unlevered cost of capital.

2.4 The relative valuation approach

The relative valuation, best known as multiple valuation (MV) approach, assess the value of the firms relying on some multipliers derived from market prices of comparable firms.

Multiples are nothing more than ratios between estimates of firm's value such as the enterprise value or the stock prices and other economic or financial items selected from comparable firms. The value of the firm is obtained by multiplying the resulting multiples for the corresponding amount of the firm being valued.

MV has reached a widespread use because of the ease application and understanding however it can conduce to inaccurate results because it does not take into account variables such as the risk, the growth rate or potential cash flows. The whole valuation relies on the capability of the market to estimate stocks prices correctly.

As précised for the previous paragraph, I am not going to revise the whole literature related to multiple application but I will straightforwardly analyze the application of relative valuation in a distressed context.

Corporate crisis condition makes tricky to adopt multiple valuation; as a general rule when dealing with distressed companies is better to adopt asset side multiples such as the renowned *EV/EBITDA* that is totally focused on operating performance of the firm and its determinants (EBITDA). On the contrary, equity side multiples (i.e. P/E, stock price on earnings) are affected by the capital structure of comparable firms and, for this reason, they are not appropriate for the valuation of firms with high leverage ratios or facing restructuring process.

Moreover, the application of multiples to firms in crisis is possible only if both the numerator and the denominator are positive, so this approach can be used only for firms in the first stages of distressed being able to generate at least positive earnings and do not have deteriorated equity.

The only multiples that can be applied in an advanced crisis scenario are those connected with sales however, they provide poor insights on margins and other fundamentals of firm value.

Damodaran proposes two MV adjustments in order to take into account distress effects.

The first one consists in including in the sample only firms in trouble and assess how much the market is able to pay for them. It is easy to understand that it can be applied only if the crisis hits the majority of the firms in the industry and it is not a spot effect that affects a single firm. Moreover, it is important to do not mix firms in different stages of crisis: this could have significant consequences in terms of valuation.

The second adjustment consists in determine multiples for all the firms in the sample, including the healthy ones, and then cluster them according to the relative bond rating. In this way, it is possible to determine multiples for each bond rating and measuring the discount rate applied by the market depending on the degree of crisis faced by firms.

Once again, as suggested in the DCF approach paragraph, the enterprise value of the distressed target firm can be appraised as the weighted average of *going concern* value, determined through relative valuation) and *liquidation value*:

$$EV = MV_{going\ concern}(1 - \pi_{distress}) + liquidation\ value * \pi_{distress}$$

Because the valuation process aims to understand the future potential value of a certain firm the analyst has to use forward multiples, calculated on future estimates and not the historical ones.

2.5 Option Pricing Valuation

Valuation methods considered until now are characterized by adjustments in order to increase the reliability of the final result in a context of crisis.

The *Option pricing valuation (OPV)* is a valuation method based on the application of financial options and it is rooted in the appraiser capability to justify, under certain circumstances, the reason why, some stocks are positively priced, even if the value of their equity appears to be negative.

The option pricing approach has been proposed for the first time by F. Black and M. Scholes (1973) and then subsequently developed by Scholes and Merton. The idea at the basis of this methodology is that, the equity of a firm can be viewed as an option on the value of firm's assets because:

- Shareholders can decide in every moment to liquidate firm's assets repaying their investment.
- Shareholders enjoy the *limited liability principle*, so they cannot lose more money than those they invested in the firm.

These two features makes equity close to a *call option* on the firm's assets value with a *strike price* equal to the face value of debt or the debt of a risky firm can be seen as a risk-free debt with a *put option* on the firm's assets value. At debt maturity, if the firm's value is greater than (face) value of debt, shareholders can reimburse debt to creditors and maintain the control of the firm or, if the value of assets is lower than the value of debt at the maturity, shareholders will exercise the option to declare bankruptcy leaving the control of the firm in the hands of creditors. Because of the limited liability principle, creditors cannot use shareholders' personal heritage for satisfying their credits.

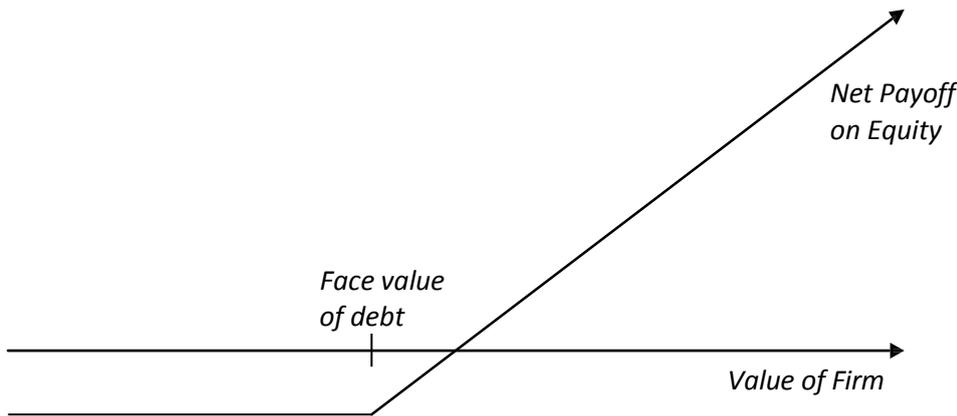
The payoff to shareholders can be synthetized as follow:

$$Payoff = \begin{cases} V - D & \text{if } V > D \\ 0 & \text{if } V \leq D \end{cases}$$

Where V is the value of the firm and D is the value of outstanding debt.

According to Damodaran, “...equity can be seen as a call option on the firm, where exercising the option requires that the firm be liquidated and the face value of the debt (which corresponds to the exercise price) be paid off. The firm is the underlying asset and the option expires when the debt comes due”.

Figure 3 – Payoff on equity as option on a firm



Source: A. Damodaran, *Valuing distressed and declining companies* (2009)

The application of option pricing model is significant only if the following assumptions are met:

- There are only two types of investors: debt holders and shareholders;
- There is only one issue of debt and it can be retired at the face value;
- The debt is represented by a zero coupon bond;
- The appraiser can estimate the enterprise value and its variance.

According to the previous assumptions the equity value of the firm can be calculated applying the *Black-Scholes and Merton model* (BSM model):

$$\text{Equity Value} = S * N(d_1) - D * e^{r_f * T} * N(d_2)$$

so, $d_1 = \frac{\ln(\frac{S}{D}) + (r_f + \frac{\sigma^2}{2}) * T}{\sigma * \sqrt{T}}$ and $d_2 = d_1 - \sigma * \sqrt{T}$ where:

- ❖ S is the EV;
- ❖ D is the face value of debt;
- ❖ r_f is the risk-free rate;
- ❖ σ^2 is the variance of the enterprise value;
- ❖ T is the debt maturity.

As explained in the previous paragraphs, the enterprise value can be calculated adopting several techniques: from the DCF methods to the multiple ones.

What is important to consider is the enterprise value volatility for listed firms:

$$\sigma^2 = w_E^2 \sigma_E^2 + w_D^2 \sigma_D^2 + 2 w_E w_D \sigma_E \sigma_D \rho_{ED}$$

Where w represents the weight of debt and equity respectively, σ represents the variance and ρ_{ED} is the correlation coefficient among the firm's stock and the bond.

Companies have a capital structure composed by different maturity obligations so, they should be

converted into an equivalent zero coupon bond to satisfy model's assumptions.

Alternatively, the maturities of each bond can be averaged in relations to their face value. In order to determine the *face value of debt* one of the following methods can be chosen:

- Sum the reimbursement amount of each bond at maturity considering that the correct debt amount can be underestimated because of interest payments are ignored.
- Add to the face value of debt, the amount of coupons and other interest payments until the maturity dealing with an increase complexity due to the different time horizon at which such cash flows will take place.
- Consider the cash flows paid to debt holders as the sum of face values of debt and interest payments, expressed as percentage on the enterprise value.

The OPM, despite its complexity, presents some advantages especially when the object of the valuation are distressed companies.

For example, it allows to estimate *risk neutral probability of default* which is the probability that the firm will be unable to fulfill its debt payments at maturity. This probability is expressed by the following formula:

$$\text{Risk neutral probability of default} = 1 - N(d_2)$$

Another advantage of this method consists in the possibility to assign a value to the uncertainty and of the future opportunities: the value of equity can be positive even if enterprise value is lower than face value of debt. This occurs because even if, in case of an immediate liquidation, the value of equity is negative, enterprise value volatility and future debt maturity give the possibility that the value of assets underlying the option will increase and become higher than the value of debt. So, equity has a *time premium* that makes it positive.

Chapter 3 – Industry analysis

3.1 Introduction

In order to completely understand the causes of distress and properly contextualize the analysis being able to understand all factors that influence companies operations, the appraiser has to be aware of industry scenario. For these reasons, it is necessary to investigate not only the company from an internal level but also at the external or industry one, looking for some unique feature that can affect companies' profitability.

Moreover, the appraiser should estimate how will evolve the future industry trends and if the company will be able to meet future challenges in order to be sustainable.

According to a worldwide-approved macro definition, premium hotels are part of the hotels & motels industry where the overall value is determined by the revenues generated by the sale of all rooms by hotels, motels and other accommodation excluding those provided by casinos that belongs to a different market segment. The industry is segmented according to the origin of the revenues, mainly generated by leisure consumers and business consumers and according to global standards. Market volumes are classified as the number of hotels in a country or region.

The Indian hotels & motels industry has been growing strongly in recent years especially due to an increase of the tourism in the country and an overall positive country growth rate; however, the industry is expected to grow at a slower speed in the forecast period.

The Indian hotels & motels industry had total revenues of \$6.5bn in 2016, representing a compound annual growth rate (CAGR) of 7.7% between 2011 and 2016, higher than those of other Asian countries such as the South Korean and Chinese ones.

Industry consumption volume increased too, with a CAGR of 8.7% between 2011-2016, to reach a total of 4,123 establishments in 2016, a huge peak after two years of poor growth. Despite of this consumption growth, the performance of the industry is forecasted to decelerate. The historical growth can be more clearly interpreted from Table 5 and in Table 6 where it is provided a synthetic overview of the key numbers. After a peak in 2012 both values and volumes growths are slowing down in the following years with a minimum values generation growth in 2015 against a minimum volume growth in 2014.

Table 5: India hotel and motel industry historical value and growth

Table 5: India hotel & motels industry value				
Year	Value (RS. Bln.)	Value (\$ bln.)	Value (€ bln.)	Yoy growth %
2011	285.4	4.5	4.0	n.a.
2012	315.6	4.9	4.4	10.6%
2013	339.2	5.3	4.8	7.5%
2014	366.1	5.7	5.1	7.9%
2015	388.1	6.1	5.5	6.0%
2016	414.4	6.5	5.8	6.8%
CAGR '11-'16				7.7%



Source: Personal elaboration

Table 6: India hotel and motel industry historical volumes and growth

Table 6: India hotel & motels establishment		
Year	establishment	Yoy growth %
2011	2,720	n.a.
2012	3,215	18.2%
2013	3,570	11.0%
2014	3,654	2.4%
2015	3,806	4.2%
2016	4,123	8.3%
CAGR '11-'16		8.7%



Source: Personal elaboration

In order to understand the future evolution of the market and investigate how the future trends will shape the industry, with a strict correlation with the valuation process, the focus has to be shifted on the prospective growth of the industry. The CAGR for the period 2015-2020 is equal to 6.6%: 1.1 percentage point less than the historical data and the performance of the industry is forecasted to decelerate. In Table 7 is represented the scenario in values and in Table 8 the volume one. If the volume growth will have a speed up in 2017 this does not seem to be totally reflected in the values generation growth that still growing at a slower rate.

Table 7: India hotel and motel industry prospective value and growth

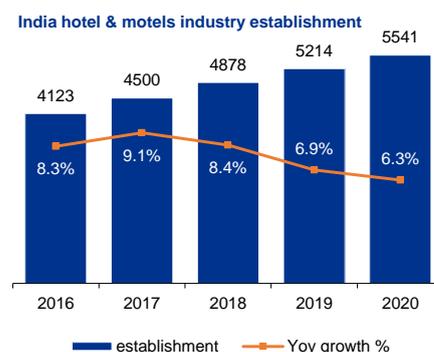
Table 7: India hotel & motels industry value				
Year	Value (RS. Bln.)	Value (\$ bln.)	Value (€ bln.)	Yoy growth %
2016	414.4	6.5	5.8	8.3%
2017	439.9	6.9	6.2	6.2%
2018	470.8	7.3	6.6	7.0%
2019	500.9	7.8	7.0	6.4%
2020	532.3	8.3	7.5	6.3%
CAGR '17-'20				6.6%



Source: Personal elaboration

Table 8: India hotel and motel industry prospective volume and growth

Table 8: India hotel & motels establishment		
Year	establishment	Yoy growth %
2016	4,123	8.3%
2017	4,500	9.1%
2018	4,878	8.4%
2019	5,214	6.9%
2020	5,541	6.3%
CAGR '17-'20		7.2%



Source: Personal elaboration

The takeaway from this first part of the market analysis is that the competition for the survival in the industry is going to be tough for all players due to a steady values year-over-year growth especially in relation to an increase in occupancy rate mainly generated by high discounts percentages that directly affect the revenues per available rooms and the marginality of the business.

In the next paragraph will follow an analysis of the main challenges that premium hotels have to deal with in this specific scenario.

3.2 Challenges faced by the premium Indian hotel industry

Nowadays, building a premium hotel is such a huge task: especially in megalopolis such as Mumbai or Delhi, but also in the newest fast developing cities such as Bangalore or Hyderabad, the hotel industry has faced a huge increase in land prices and in all those materials required to make a hotel of the best standards. This is clearly a limitation in case the firm what to develop its business through a capillary coverage of the market and a quick new opening policy. Moreover, new and progressive concepts like Boutique Hotels, Green Hotels, and Healthy Hotels have emerged in the market leading to the evolution and growth of new trends in the hotel industry.

The revenue flows is strictly dependent on the ability to create a huge involvement of the guest and the revenues generated from the extra services offered by the hotel such as restaurants, bar, banquets, conference halls, spa, gym, beauty salon are on average the 48% of the overall revenues (2015-2016). The hotel industry is a direct customer based industry whose focus is towards the customer's satisfaction and customer retention to earn their long-term loyalty towards their brand: in a valuation prospective, the definition of a multiple that relates the enterprise value and the customer base (EV/number of clients) is a reliable way in order to benchmark different players of the industry and estimate an intrinsic value for the company.

In the following sub-paragraph a detailed analysis of the main challenges faced by this industry.

3.3.1 Indian Government's Taxation Policies

India is facing a slump in the hotel industries for approximately five years now with a non-growing occupancy rate and declining revenues per available rooms (Rev-par) over these years as pointed out in the previous paragraph. This has been generated also by a general slowdown in the economy that has hit the hotel industry.

Moreover, according to a survey conducted by the Federation of Hotels and Restaurant Associations of India (FHRAI), in the last five years the average room rates have definitely been stagnant. In India, hotels are taxed anywhere between 20% and 25% depending on the State they are operating in; whereas, in other Asian countries, the tax rate is levying from 8% to 10%. From an analysis of the balance sheet of the listed hotel chains in the country, many of them perform losses, despite slightly positive EBIT, due to the high level of taxation. Taxes are ultimately levied through the customers, whereas, if some tax relaxations are given to the hospitality industry it will provide a boost to the hotels in terms that they will have more operational cost to run their business and financial support to reduce the risk of failures and give endurance to sustain through the slack times. The saved money could be invested in the annual budget of the hotel's operations to increase the revenues.

3.3.2 Debt-funding by Indian banks

HVS India conducted a research related to the lending parameters adopted in the industry making an analysis of the Indian hotel debt-funding and comparing it with those of other countries. The result was that in cities like New York, London, Dubai and Moscow, the term period of the loan ranges from 20-30 years, with interest rates of 5-7%. In other cities such as Beijing and Buenos Aires, while the length of the loan term is around 10 years, the interest rate is in the range of 9-10%. In clear contrast, debt-funding for hotel projects in India is characterized by a relatively short term loans, typically of 10-12 years, but with higher interest rates of 12-14%. Once again, the shorted length of the loan, especially combined with a high interest rate, makes the mission of hotel managers more challenging: huge amount of earning are lost after the EBIT and these clearly result from industry players' financial statements.

The lending parameters for hotels projects in India border on being unfriendly towards the borrowers: hotels have a construction period of approximately 3 to 4 years but, with a loan term of 10 years, the *door-to-door* tenure can be broken down as 3-4 years of construction period, 1 year of moratorium period or assessment phase and 5-6 years of operations period. Therefore, the project has only from 5 to 6 years in order to repay its financing and that it is hard to be met. As a result, either the insufficient payback period leads to the borrower an extra request of equity to pay-off the debt, which ideally should be coming from the positive cash flows of the hotel itself or the project undergoing

refinancing. Debt repayment begins as soon as a project is approved by the regulator and hotel shareholders are unable to access public capital, making repayment cycles longer.

3.3.3 Licensing issues

India is a difficult country to start a business especially for international investor: it ranks 132 among the 185 countries in terms of ease of doing business due to issues related to licensing. The current regulatory environment in the country makes hotel development a difficult terrain for owners. From the land acquisition stage to securing approvals and licenses many bureaucratic bottlenecks can be faced when operating in the country. Moreover, the various representative bodies in charge of giving approvals and issuing licenses tend to work in independently generating lack of coordination and significant delays. To provide a concrete example, the State of Maharashtra (capital Mumbai) requires more than 100 licensing permissions to just get a hotel started and in addition, hotels have to take a daily liquor license for every event they do.

3.3.4 Technology in the hotel industry

Luxury hotel chains has been deeply affected by new technological solution that enable hotel to offer a superior service. To quote, Louis Sailer, general manager at *The Leela Palace* in New Delhi “...*the guest experience has been enhanced to a level above with the personal welcome message by general manager or the in-room internet protocol based touch phone, use of smart technology like iPads, iRemotes and handsfree bathroom phones*”. Though, the challenge of keeping up with the fast evolution of technology presents IT integration complexity such as software that are able to manage huge amount of online orders or a constant update of online reselling platforms and social network. All these technological investments are reflected in a higher service, marketing and operational expenses. In a shorter future there will be a greater adoption of cloud services and Big Data analysis in order to understand guest behavior and understand the demand side will become more and more important relevantly influencing the industry. The rapid pace of technology innovations has changed the expectations of the guests, which is a challenge that most companies constantly face such as free and fast Wi-Fi or other web-based features work on wide range of devices. In this view, it is crucial to manage the feasibility of this dynamics: all the technological staff provided into the room today will become outdated vary quickly as the technology cycle is so much faster than the hotel refurbishment cycle and this clearly affect the overall capital expenditure that the hotel have to regularly plan in order to make its real assets valuable.

3.3.5 Human resources management

The Indian hospitality industry suffers from high rate of attrition: the employee’s retention rate is extremely low, mainly due to the employees’ dissatisfaction with low pay and long working hours. The work force situation in Indian hotel industry is quite serious especially due to the lack of adequate skilled staff given that hospitality is one of the most labor intensive service sectors and depends completely on the experiential and repeat value of the business. The high rate of attrition can be reflected in increasing personnel costs such as hiring costs, training costs and can result into a loss of productivity. To contrast this phenomenon, some industry players have increased the base salary level and they offer specific training session in order to show employees their importance and benefit from more professional employees. All this corrective action are reflected in higher employees costs.

Figure 4: Employees breakdown

Figure 4.1: Average number of employees per hotel

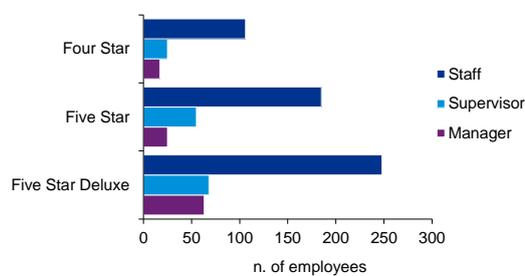
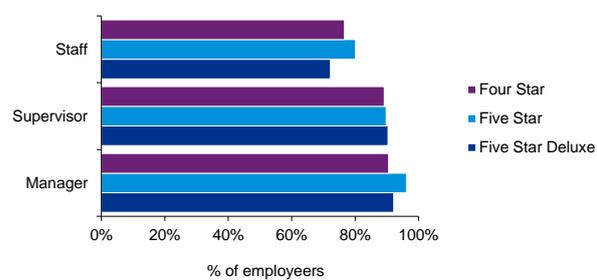


Figure 4.2: Average number of trained employees



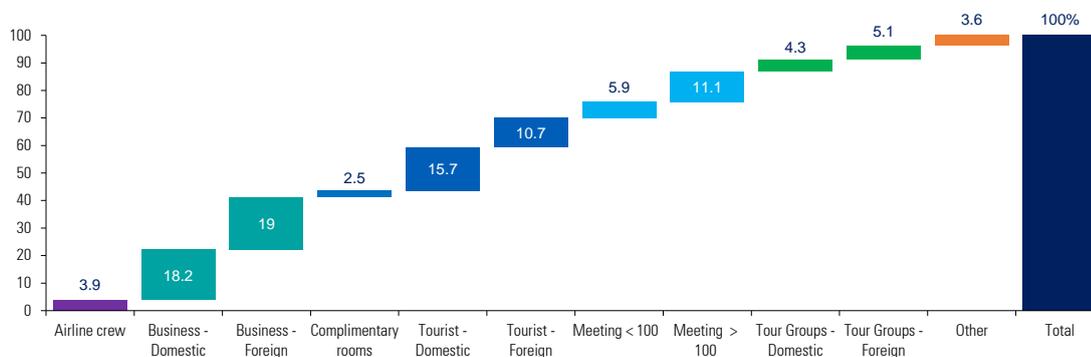
Source: Personal elaboration from FH&RA, Indian hotel industry survey 2015-2016

3.4 Market segmentation and Porter Five Forces

The aim of this paragraph is to analyze the market segmentation and understand the role of the forces that shape this industry in order to understand the more risky areas of the market and how they could affect the industry and the value of its players.

In Figure 5 is provided a category segmentation of the market.

Figure 5: Five star hotel client-segmentation in percentage (%) on the overall business

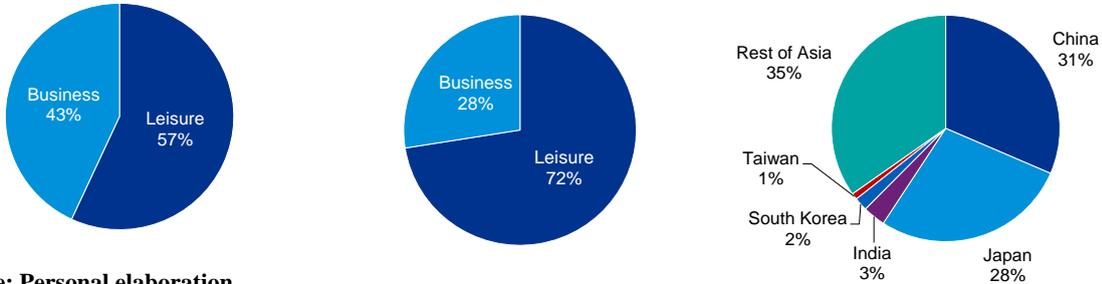


Source: Personal elaboration from FH&RA, Indian hotel industry survey 2015-2016

However, considering the whole hotels & motels industry the share percentage moves to 72.5% Leisure clients and 27.5% Business Clients.

Figure 6: Macro client's segmentation

Figure 6.1: Five Star Hotel macro categories Figure 6.2: Hotels and Motels macro categories Figure 6.3: Industry geographic segmentation



Source: Personal elaboration

Now the focus of the analysis will shift on the forces that shapes this industry. The application of the Porter Five Forces Model is the focus of the rest of the paragraph. The market will be analyzed taking hotel and motel operators as players and the product is their core activity: the hospitality service. The key buyers, the hotel customers, will be taken as consumers, and property owners, interior designers, and information and computer technology manufacturers as the key suppliers.

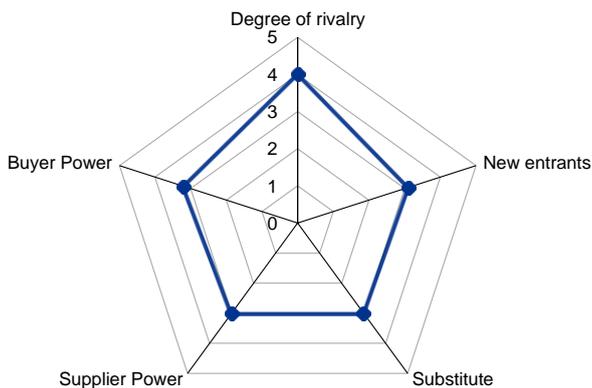
The industry is dominated by large international players, who compete intensely for a share of the market amongst themselves and with numerous smaller independent players.

Within the hotels and motels industry, where switching costs are negligible and competing on price alone is no longer a key to success, brand recognition and innovation helps to attract first-time customers as well as repeat business. Buyers include corporate and leisure customers as pitch out in the previous analysis. Suppliers include providers of various goods and services, as well as a qualified workforce. Due to a high reliance on complex IT systems and the growing importance of mobile communication channels, some suppliers may exert strong supplier power.

Entry on a small scale for a new player is possible, but, given the importance of brand power and technology in expanding, significant capital outlay is required for a large-scale operation. A new substitute in the form of private rentals, widely available through online services such as Airbnb and FlipKey, is a potential threat to the industry.

Figure 7: Summary of forces that shapes the industry

Figure 7: Summary of forces that drive the competition



Source: Personal elaboration

3.4.1 Degree of rivalry among existing firms

The Indian industry includes several large local hotel operators, such as IHCL Ltd (Taj hotels), the EIH Ltd (Oberoi hotels), the HLVL Ltd (Leela hotels) and the Asian Hotel (West) Ltd (Hyatt and Marriott hotels) with most of the leading players operating several different branded chains. Nevertheless, a large number of independent players that exponentially increase the level of the competition characterizes the industry.

To attract and sustain more business, operators try to offer more complex packages and value-added services, such as free breakfast, parking, or a free third night.

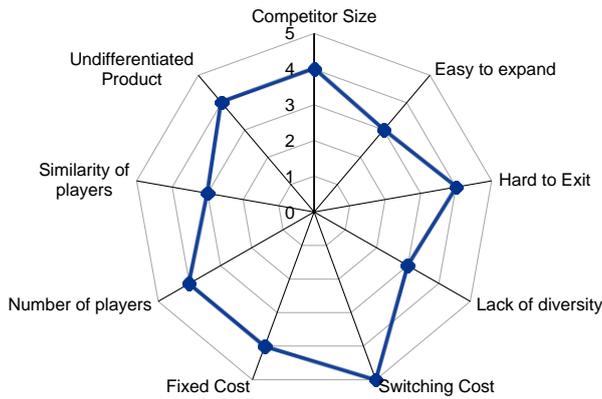
Exit barriers in the industry are fairly high because most of the major tangible assets are highly specific and harder to divest: that is why many of the global leaders have adopted a franchising strategy to pursue expansion in the country. Many big chains have adopted an asset-light business model in order to boost the expansion: the capability to generate positive earning is more and more difficult and in order to raise capital to fund investments and expand operations in the emerging cities, the selloff of assets has been adopted as a common strategy.

Finally, a moderate rate of value growth in this industry has worked to alleviate rivalry somewhat in recent years.

In Figure 8 a graphical representation of the degree of rivalry among players of the industry.

Figure 8: Degree of rivalry main drivers

Figure 8: Degree of rivalry



Source: Personal elaboration

3.4.2 Threat of new entrants

It is possible to enter the industry in a relatively low-key way by opening a small, independent hotel or motel and suppliers are easily accessible. However, the industry is capital intensive, and for a large-scale entrance, upfront investment in buildings, furnishings, ICT infrastructure and staff is expensive: in a highly competitive business, conducting operations using all the latest technology, as well as constantly developing the tools and skills required, is essential and costly. Furthermore, major players are able to exploit the power of their brands in order to create alliances with airlines and travel agents as seen in the market segmentation by category. The franchise business model of many large chains also restricts the number of independent competitors and gives franchisees a fixed cost advantage.

As tourism is not a vital consumer good, it will tend to be cyclical and travelers, increasingly expect bargain rates while refusing to tolerate lapses in quality and service. To sustain revenue growth in the premium market, operating a chain of hotels is often an important strategy as it reduces dependence on tourism in any particular location however, in order to open an international chain of hotels, regulations in terms of real estate and buying abroad need to be taken into account and it can therefore be restrictive in some countries. The purchase, leasing, and management of property involve legal and financial complexities, necessitating spending on professional services.

The notion of brand integrity is crucial: hotels will need to supply consistent service in a global environment, while adapting to support customers with new cultural backgrounds and sensitivities in local markets. Some companies have been able to develop a specific business model to avoid many of these extra costs; however, a completely new entrant might not have sufficient scale economies to attempt this. Companies, such as Marriott and IHCL, have developed business models involving third parties dealing with its property, which has allowed it to bring costs down.

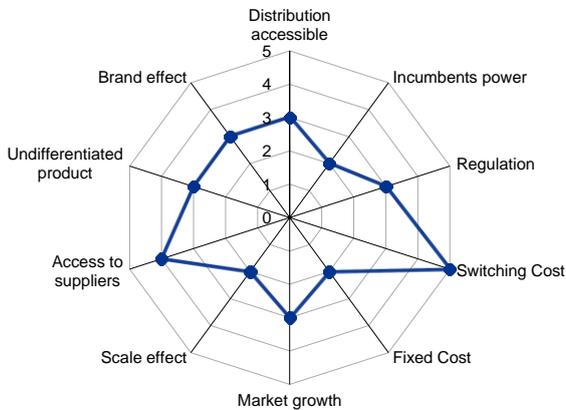
A moderate rate of volumes growth in this geography has worked to provide some encouragement to

new entrants in recent years.

In Figure 9 a graphical representation of the likelihood of new players in the industry.

Figure 9: Factors influencing the likelihood of new entrants main drivers

Figure 9: Threat of new entrants



Source: Personal elaboration

3.4.3 Substitute products or services

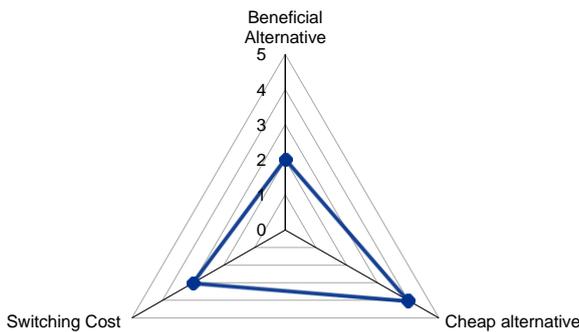
Substitutes to hotels include alternative forms of leisure accommodation, such as camping facilities or recreational vehicles that however are not popular at all in the Indian market; maybe, informal accommodation with friends and family can be seen as a more practical option. Due to these aspects, switching costs are difficult to define but could be assumed that they are not relevant.

Moreover, all these substitutes can be seen as a basic product able to satisfy only the basic function of a place to stay whereas, up-market hotels provide added benefits, such as premium leisure and services such as spas and restaurants. Additionally, whilst some of these substitutes offer reduced costs to hotels and can undercut the hotels and motels industry, this switch is often out of necessity rather than choice, so when consumers are in a more generally affluent position, the threat from substitutes is likely to decline. In some cases hotel companies can also mitigate the threat of substitutes by expanding in to the threatening business area for example some larger hotel companies maintain a range of private villas, in touristic location to reduce the threat of substitution here.

A more recent substitute that is becoming increasingly threatening is the ability to stay with local people in their own homes or apartments, either by renting a room or the entire property. Online services in this area include Airbnb, FlipKey and the more informal Couchsurfing platforms. According to the *International Hotel Association* this new phenomenon that is becoming popular also in India is an “hot topic” to be monitored; however, the threat of substitutes is assessed as moderate. In Figure 10 a graphical representation of the threat of substitute products in the hotel industry.

Figure 10: Drivers that influence the threat of substitute products

Figure 10: Drivers of threat of substitute products



Source: Personal elaboration

3.4.4 Power of suppliers

The hotel industry supplier can be defined as property owners, developers and real estate companies, interior design and furnishing companies, architects, management and training service providers, marketing companies, industry consultants, and information and technology manufacturers.

Real estate companies are often much smaller companies than the main hotel chains and rather than being globalized, they are usually local property developer and this reduce their bargaining power, ability to set contractual conditions and their financial independence. Moreover, hotel's groups can also be backwards integrated, and operate their own real estate business.

Nevertheless, as précised in the previous paragraphs, switching properties is extremely costly so, suppliers can differentiate themselves in terms of construction quality in order to reduce maintenance costs.

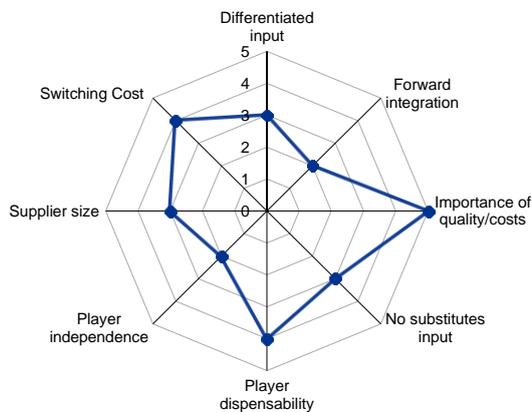
Hotel operators are reliant upon sophisticated technology and systems, including technology utilized for property management, procurement and reservation systems. Applications, databases and networks must integrate easily with each other and third-party systems to facilitate collaborations with partners. The growing importance of the mobile channel is more and more important and the technology platforms used by hospitality companies must support and enable all user interactions: this can be seen as one of the main supplier strengths. Additionally, companies that supply technology are not wholly reliant on the hotel industry due to the wide applicability of technology systems: this surely increase their bargaining power and makes those companies non dependent on the industry evolution.

The industry is also labor intensive and staff costs are significant: the quality of the service provided deeply affect the level of the overall service and the reputation of the company. In a general view this can be seen as suppliers' strength however if contextualize to the country-specific economic conditions this aspect becomes less relevant.

In Figure 11 a graphical representation of the bargaining power of suppliers.

Figure 11: Drivers that influence the bargaining power of suppliers

Figure 11: Summary of forces that drive the power of suppliers



Source: Personal elaboration

3.4.5 Power of buyers

The hotel industry can be defined mature also in an emerging country as India so the capability to maintain a as wide as possible customer base is extremely important especially because of the high level of completion and the intrinsic value that customer rate can generate for the company.

A strong brand image helps to attract first-time customers as well as repeat business, as switching costs are negligible in this industry: differentiation between brands becomes important, and a specific brand can become a synonymous of quality, price or a target age. Major industry players therefore have a wide portfolio of brands ranging from budget to luxury hotels in order to attract as much clients as possible.

Buyers are generally price sensitive, except in the premium market. Innovation is also vitally important in attracting customers, and rely on price competition only can be difficult especially when the offer is huge.

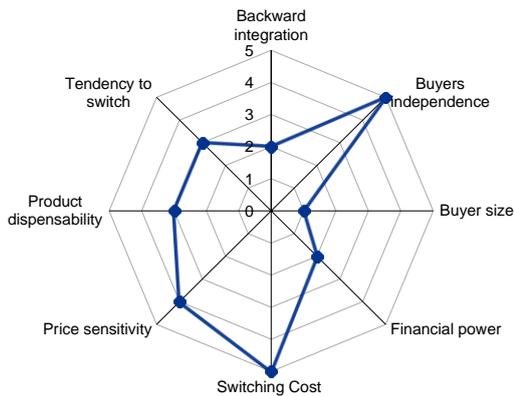
Larger companies have implemented loyalty schemes, by offering a points system or air miles to regular customers and this is a consolidated approach in the industry to reduce the buyer power.

Furthermore, as customers are numerous only if individually taken, their buyer power is reduced, since the impact of losing one customer is not a significant threat to business. However, if the number of travelers falls, buyer power is driven up, as consumers have more options available, often at a lower price point.

In Figure 12 a graphical representation of the bargaining power of buyers.

Figure 12: Drivers that influence the bargaining power of buyers

Figure 12: Summary of forces that drive the power of buyers



Source: Personal elaboration

3.5 Key financial analysis of the leading companies in the industry

The previous paragraph provides to the reader a broad analysis of the industry with its main trends and challenges. However, in order to be compliant with the object of this dissertation, the aim is to assess how industry players are performing at this market conditions and estimate the value that can be generated from current operations.

This paragraph is dedicated to the financial analysis of the main listed players in the industry that mainly coincide with top market segment of the market. The selection criteria follows the following rule: the company has to be incorporated in India and its revenues have to be generated for the majority in the country. The aim is to investigate the profitability and sustainability of the industry players.

According to a research conducted by the India Credit Rating Agency the most relevant local players of the industry are the following hotel companies that will be analyzed in the following paragraph.

The financials are presented both in the Indian currency (INR Rupees) and in Euro: the exchange rate used to convert values is 0.0143 (1 Rupee is equal to 0.0143 Euro) according to the exchange rate provided by Yahoo Finance on date April 24, 2017.

3.5.1 The Indian Hotel Company Ltd.

Incorporated, in 1902, by Jamshed N. Tata of the Tata Group, Indian Hotels Company Limited (IHCL) is India's largest hospitality company.

The hotels run by the company are the Taj Hotels Resorts and Palaces that are grouped into four distinct business segments:

- Luxury hotels branded under the name Taj Mahal of the Exotica;
- Upper Upscale hotels branded Vivanta;
- Upscale hotels, the Gateway;
- Budget hotels branded under the name Ginger.

All these categories provide to the company consistency across the different hotels and standardize offerings. Of these, the luxury properties in metro and key leisure destinations are largely in the books of IHCL while the rest are held through subsidiaries and associates.

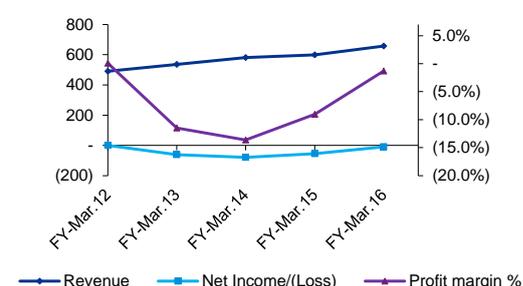
Table 9 represents an overview of the key financial of the company.

Table 9: IHCL Ltd. key financials

Table 9: Indian Hotel Company Ltd - key financials (INR)					
INR (mln)	FY-Mar.12	FY-Mar.13	FY-Mar.14	FY-Mar.15	FY-Mar.16
Revenue	34,327	37,434	40,662	41,886	45,909
Yoy growth %	n.a.	9.0%	8.6%	3.0%	9.6%
EBITDA	5,965	5,376	5,596	4,885	6,166
EBIT	3,414	2,492	2,514	1,973	2,999
Net Income/(Loss)	31	(4,302)	(5,539)	(3,781)	(605)
Profit margin %	0.1%	(11.5%)	(13.6%)	(9.0%)	(1.3%)

Table 9.2: Indian Hotel Company Ltd - key financials (€)					
€ (mln)	FY-Mar.12	FY-Mar.13	FY-Mar.14	FY-Mar.15	FY-Mar.16
Revenue	491	535	581	599	657
Yoy growth %	n.a.	9.0%	8.6%	3.0%	9.6%
EBITDA	85	77	80	70	88
EBIT	49	36	36	28	43
Net Income/(Loss)	0	(62)	(79)	(54)	(9)
Profit margin %	0.1%	(11.5%)	(13.6%)	(9.0%)	(1.3%)

Revenues and profitability chart



Source: Personal elaboration from the Company's Annual Report

At the consolidated level, IHCL reported a 9.6% year over year (yoy) growth in revenues in 2016 and a CAGR of the 7.5% for the period 2012-2016 perfectly in line with the industry one in same time lapse.

Higher revenue was mainly due to 18.5% increase in membership fees, 13.4% increase in shop rentals, 12.6% increase in management and operating fees, and 11.6% in food, restaurants and banquet income, 8.1% increase in room income and 2.1% increase from other operations. The improved financial performance of the company could help the company in sustain its future growth path and ambitious expansion plans.

Moreover, the above positive trend has been strengthen by the increase in the international tourists arrivals and from the opening of three new luxury hotels respectively located in Mumbai, Bangalore and Nepal, two new upscale hotels and one new upper-scale one: the Taj Group now stands at 133 hotels with 16,592 rooms.

The operating expenses increased too, by 11% due to the growth in occupancies along with an increase in business volumes and the launching costs associated to the new openings that directly increase the capital expenditure.

From a financial point of view the company's current ratio was 0.5 in FY2016: this reflect the Indian player industry average however if compared with the international hotels chains such as the Mandarin Oriental International Ltd. the ratio results to be much lower than competitors one (Current Ratio _{Mandarin Oriental} =2.7). Therefore, the company is less able to meet its short-term obligations than some of its direct international competitors. Moreover, the company registered an increase of 60.8% of its currents liabilities and a decrease of 34.9% or current assets. This can be seen as a disadvantage when funding any potential opportunities in the market.

However, despite the revenue growth, the company still have a negative profitability also if the marginality even if still negative is improving.

3.5.2 Hotel Leela Venture Ltd.

Hotel Leela Venture Limited, founded by Capt. C. P. Krishnan Nair, owns the hotel chain The Leela Palaces, Hotels and Resorts which manages nine hotels in India with a total inventory of 2,688 rooms. The company directly owns Five out of nine properties whereas the other four are under a management contract.

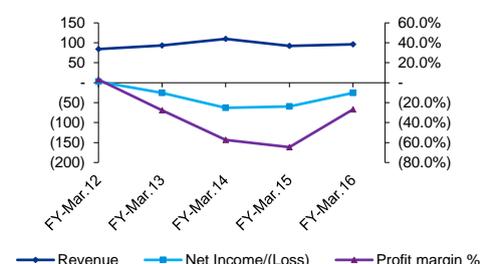
Table 10 represents an overview of the key financial of the company.

Table 10: The Leelaventure Ltd. key financials

Table 10.1: The Leelaventure Ltd - key financials (INR)					
INR (mln)	FY-Mar.12	FY-Mar.13	FY-Mar.14	FY-Mar.15	FY-Mar.16
Revenue	5,884	6,514	7,682	6,431	6,703
Yoy growth %	n.a.	10.7%	17.9%	-16.3%	4.2%
EBITDA	639	1,194	1,949	983	1,626
EBIT	(671)	(193)	143	(1,284)	(773)
Net Income/(Loss) from operations	(3,930)	(1,802)	(4,415)	(4,549)	(3,717)
Profit from discontinuing operations	4,117	-	-	391	1,916
Net Income/(Loss)	186	(1,802)	(4,415)	(4,159)	(1,802)
Profit margin %	3.2%	(27.7%)	(57.5%)	(64.7%)	(26.9%)

Table 10.2: The Leelaventure Ltd - key financials (€)					
€ (mln)	FY-Mar.12	FY-Mar.13	FY-Mar.14	FY-Mar.15	FY-Mar.16
Revenue	84	93	110	92	96
Yoy growth %	n.a.	10.7%	17.9%	-16.3%	4.2%
EBITDA	9	17	28	14	23
EBIT	(10)	(3)	2	(18)	(11)
Net Income/(Loss) from operations	(56)	(26)	(63)	(65)	(53)
Profit from discontinuing operations	59	-	-	6	27
Net Income/(Loss)	3	(26)	(63)	(59)	(26)
Profit margin %	3.2%	(27.7%)	(57.5%)	(64.7%)	(26.9%)

Revenues and profitability chart



Source: Personal elaboration from the Company's Annual Report

At the consolidated level, The Hotel Leela reported a 4.2% year over year (yoy) growth in revenues in 2016 after considerable declining in the FY2015 and a CAGR for the period 2012-2016 of the 3.3%, that is approximately 4.4 pps lower than the industry one in the same time lapse.

The operating expenses increased too, by 7.2% due to the growth in occupancies along with an increase in business volumes and the IT costs associated with the new IT system integration process that coincide with the most relevant capital expenditure.

However, despite the revenue growth, the company still have a negative profitability also if the marginality, even if still negative, is improving.

The Company has adopted an “Asset Light Strategy” for future growth and it plans to operate hotels through Management Contracts, instead of owning hotels and has executed *Memorandum of Understanding* with some reputed developers to manage their hotels and residences being developed by them.

The company had restructured its debts under the Corporate Debt Restructuring (CDR) mechanism, with January 1, 2012 as the cut-off date: the company intended to reduce its debt selling the Delhi Hotel by March 31, 2014 however, due to the continued economic recession, the Leela could not sell the hotel. During the FY2016 the companies sold the Goa Hotel generating proceeds for approximately €27 mln that has been used for debt reduction.

One of the main weaknesses of the company is the limited current ratio (Current assets over current liabilities) that in the FY2016 was equal to 0.4 and considerably lower those of its competitors.

At the end of 2016, the company had total current assets worth INR1,921 mln and total current liabilities at INR4,293 mln that reflects an increase of 18.6% over the previous year. Moreover, the financial position of the company is limited due to significant debt funding rather than equity. The company recorded debt to equity ratio of 17.2 at the end of FY2016 and the total equity of the company decreased by

43.1% from the FY2015 to the FY2016: this indicates an utilization of higher financial leverage and a comparatively weaker equity position, noting the lower creditworthiness of the company.

3.5.3 The EIH Ltd.

EIH Limited, founded in 1949 by Mr. P.R.S Oberoi, is the third largest hospitality company in India after Indian Hotels Company Limited and the ITC Welcome Group. It is the flagship company of the 1934 founded Oberoi Group which owns/manages luxury hotels across five countries under The Oberoi and the Trident brand, both in the five-star category.

The company classified its business operations into five divisions: Rooms, Food and Beverage, Other Services and Sale of Printed Materials.

In FY2016, the company generated 39.3% of total revenue from its rooms division, 42.2% from its food and beverages division, 14.2% from other services and 4.3% from Printed Materials division: in this specific scenario the main driver of revenues are restaurants and pubs that present the higher

marginality too.

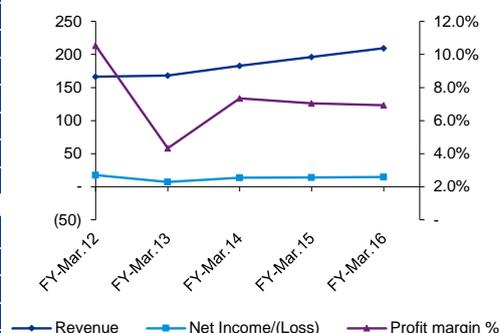
Table 11 represents an overview of the key financial of the company.

Table 11: The EIH Ltd. key financials

INR (mln)	FY-Mar.12	FY-Mar.13	FY-Mar.14	FY-Mar.15	FY-Mar.16
Revenue	11,622	11,770	12,789	13,730	14,637
Yoy growth %	n.a.	1.3%	8.7%	7.4%	6.6%
EBITDA	2,914	2,444	2,793	3,059	3,117
EBIT	1,439	986	1,394	1,512	1,720
Net Income/(Loss) from operations	1,224	510	940	966	1,015
Profit margin %	10.5%	4.3%	7.4%	7.0%	6.9%

€ (mln)	FY-Mar.12	FY-Mar.13	FY-Mar.14	FY-Mar.15	FY-Mar.16
Revenue	166	168	183	196	209
Yoy growth %	n.a.	1.3%	8.7%	7.4%	6.6%
EBITDA	42	35	40	44	45
EBIT	21	14	20	22	25
Net Income/(Loss) from operations	18	7	13	14	15
Profit margin %	10.5%	4.3%	7.4%	7.0%	6.9%

Revenues and profitability chart



Source: Personal elaboration from the Company's Annual Report

At the standalone level, The EIH reported a 6.6% year over year (yoy) growth in revenues in 2016 and a CAGR of the 5.9% for the period 2012-2016, that is 1.8 pps lower than the industry one.

Revenues has been manly driven by the increase primarily due to the higher contributions of the Transport & Car Hire Charges division and of the printed materials one. In line with what underlined in the previous line the strenght of the company is its capability to generate approximately the 60% of its revenues from accessories activities and extra services.

Another strengthens of the company I the enhanced financial leverage linked with its ability to borrow and repay money, which, in turn, boost its business operations and makes the company unique if compared with its main competitors.

The solvency position of EIH has improved due to limited debt funding than equity and it recorded a debt-to-equity ratio of 0.2 (D/E) at the end of FY2016, that is once again unique in the industry if compared to its competitors ($D/E_{Leelaventure} = 17.2$). This strong solvency position indicates a conservative utilization of the financial leverage and its comparatively higher equity position, underlining the better creditworthiness of the company.

One company's weakness is the limited current ratio (Current assets over current liabilities) that at a standalone value was equal to 0.6 at the end of FY2016, lower than those of other players in the industry. This indicates a weaker liquidity position combined with a lower ability to meet short-term obligations and can results in a disadvantage when funding any potential opportunity arising in the market. The company is investing in Middle East markets with a total of three under construction sites in UAE, Marrakech and Casablanca.

3.5.4 Other industry players

In this paragraph, the other relevant industry players' key financials will be presented in order to provide to the reader an omni-comprehensive analysis.

In table 12 a synthetic representation of the financials highlight of three more companies.

Table 12: Other companies' key financials - Source: Personal elaboration from the Company's Annual Report

Table 12.1: Other companies - key financials (INR)			
INR (mln)	FY-Mar.14	FY-Mar.15	FY-Mar.16
Kamat Hotels Ltd.			
Revenue	1,568	1,393	1,508
Yoy growth %	n.a.	-11.2%	8.3%
EBITDA	617	332	467
EBIT	(101)	(647)	(55)
Net Income/(Loss) from operations	(2,326) ⁽¹⁾	(592)	(853)
Profit margin %	(148.4%)	(42.5%)	(56.5%)
Royal Orchid Hotels Ltd.			
Revenue	1,492	1,478	1,585
Yoy growth %	n.a.	-0.9%	7.3%
EBITDA	279	224	247
EBIT	(65)	(78)	(41)
Net Income/(Loss) from operations	(375) ⁽²⁾	(39)	(13)
Profit margin %	(25.1%)	(2.6%)	(0.8%)
The Asian Hotels (West) Ltd.			
Revenue	1,294	1,344	n.a.
Yoy growth %	n.a.	3.9%	n.a.
EBITDA	863	894	n.a.
EBIT	62	(32)	n.a.
Net Income/(Loss) from operations	(50)	(21)	n.a.
Profit margin %	(3.9%)	(1.6%)	n.a.

(1) it includes Exceptional Items of INR 2,805 mln.

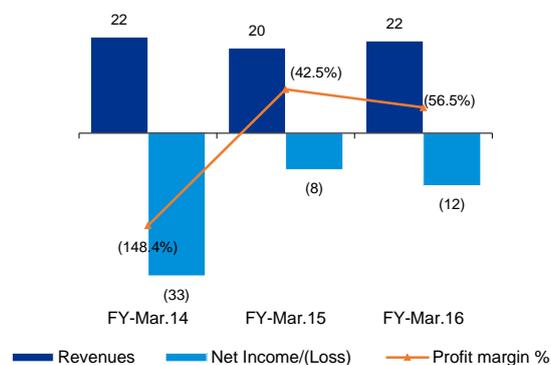
(2) due to Loss from discontinuation of business and sale of investment

Table 12.2: Other companies - key financials (€)			
€ (mln)	FY-Mar.14	FY-Mar.15	FY-Mar.16
Kamat Hotels Ltd.			
Revenue	22	20	22
Yoy growth %	n.a.	-11.2%	8.3%
EBITDA	9	5	7
EBIT	(1)	(9)	(1)
Net Income/(Loss) from operations	(33) ⁽¹⁾	(8)	(12)
Profit margin %	(148.4%)	(42.5%)	(56.5%)
Royal Orchid Hotels Ltd.			
Revenue	21	21	23
Yoy growth %	n.a.	-0.9%	7.3%
EBITDA	4	3	4
EBIT	(1)	(1)	(1)
Net Income/(Loss) from operations	(5) ⁽²⁾	(1)	(0)
Profit margin %	(25.1%)	(2.6%)	(0.8%)
The Asian Hotels (West) Ltd.			
Revenue	18	19	n.a.
Yoy growth %	n.a.	3.9%	n.a.
EBITDA	12	13	n.a.
EBIT	1	(0)	n.a.
Net Income/(Loss) from operations	(1)	(0)	n.a.
Profit margin %	(3.9%)	(1.6%)	n.a.

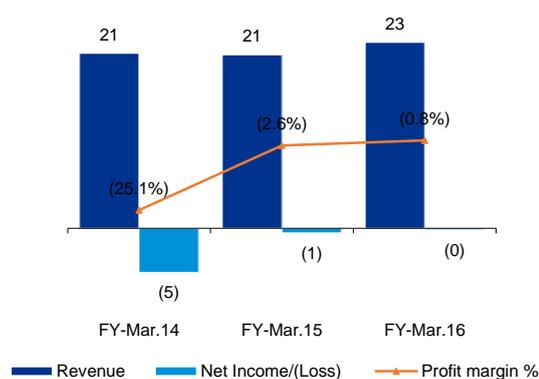
(1) it includes Exceptional Items of INR 2,805 mln.

(2) due to Loss from discontinuation of business and sale of investment

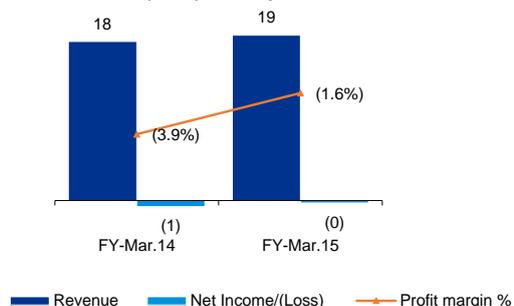
Kamat Hotels Ltd. Key financials



Royal Orchid Hotels Ltd. Key financials



The Asian Hotels (West) Ltd. Key financials



3.6 Industry risk and concerns

As explicitly stated in the paragraph related to the macroeconomic conditions of the industry, the hospitality business is prone to the impact of changes in global and domestic economies, in local market conditions, in excess hotel room supply and deeply reliant to the government policies and regulations.

Moreover, the demand for hotels is affected by global economic sentiments especially for leisure clients so, a certain market prolonged global recession could also lead to a downturn in the hotel industry.

In addition to economic risks, hotel companies face risks from the socio-political environment, internationally as well as

within the country, and is affected by events like political instability, conflict between nations, threat of terrorist activities and specific weaknesses of the country such as infectious diseases and potential extreme weather conditions especially in certain period of the year in with the flow of tourists slow down.

Moreover companies belonging to this industry in order to still competitive in the market and try to increase profitability and market share have to take some specific risks. The most relevant one are analyzed in the following bullet points:

- *Overseas Investments*: many companies due to the actual limited growth potential of the country and the strict regulatory system are evaluating significant investments in hotel assets across diverse geography: for example the IHCL Group has real assets in London, New York, Dubai, etc. Nevertheless, due to the long term strategic nature of these investments, they need to be nursed after a long time of gestation period and because a global slowdown of the market and the extremely high level of the competition.
- *Geographical concentration*: the companies presented in the previous paragraph generates the major part (or the totality) of their revenues from hotel properties located in the country and more precisely from the same five key cities in India. Moreover, due to the demographical and social conditions of some areas of the cities, hotels are all usually located in the same district, one few minutes distant from the other: this increase the level of the competition and capability to benefit from relevant distinctive feature too.
- *Competition from Global Hotel Chains*: despite of the steady growth of the industry, the Indian subcontinent and other South Eastern Asian countries have become the focus area of major international chains due to their high growth potentials both in terms of tourism than in terms of business clients. Several of these chains have announced their plans to establish hotels in such markets to take advantage of the demand supply imbalance: these entrants are expected to intensify

the competitive environment also applying inorganic growth strategies which may include consolidations and mergers.

The success of each player will be dependent upon its ability to compete in areas such as room rates, quality of accommodation, brand awareness, service standards, convenience of location and the quality and scope of other amenities, including food and beverage facilities along with cost reduction ability.

- *High Operating Leverage:* as analyzed in the previous paragraph one of the industry features is the leverage: the high operating leverage which has further increased with on-going renovations and new openings strongly related with an increase in staff costs and other maintenance costs. The aim is to be sustainable, maintaining a balance between costs, extra-revenues, and earnings that can be generated from new rooms.
- *Hotels on lease:* another main industry trend is that many companies operate hotels under lease or license arrangements with third parties: such arrangements are subject to various risks including unfavorable terms and conditions on renewal or non-renewal, that can negatively affect the business. Nevertheless, this risk can be mitigated entering into long term agreements.

Chapter 4 – The Hotel Leela Venture crisis analysis

4.1 Introduction

The objective of the thesis is to apply the most suitable methods in order to value firms in trouble and analyze the performance of such models in a real-life case setting. The Leela Venture Ltd. case has been chosen because it represents the entering of a firm into a declining stage facing financial distress and that tries to an extreme recovery strategy, modifying its business model in order to survive to the strong crisis path.

This chapter is dedicated to the analysis of the financial statements of the company in order to provide a broad view of the current situation of the firm and how the restructuring process carried out by the management has affected the overall company strategy and value.

As explained in the previous chapter the Hotel Leela performance has been deeply influenced by stagnant overall industry trends, moreover despite of the premium quality standards provided to its clients, the company, if compared to its main competitors has a lower number of properties, all centralized in the Indian country. So, before the economic crisis of 2007/2008, the company, in order to face the massive entrance of the international hotels chains in the market, financed an expensive new openings strategy. However, the economic financial crises combined with a slowdown in the occupancy rate, an increase in the offer and a debt funding for hotel projects characterized by short term loans, typically of 10-12 years, with higher interest rates of 12-14% generated a situation of financial distress: this makes extremely difficult for hotel chains the development of new assets (properties). The short repayment terms of the debt, combined with a high interest rate, and decreasing earnings, makes the company more and more exposed to an expensive debt capital: the high debt level on company's books made the interest costs balloon and actually the company is no longer able to repay its debt.

The debt evolved from less than INR 1,000 crores (€140.1 mln) in 2007 to approximately INR 5,000 crores (€706.8 mln) in 2013 with an interest cost of 502 crores (€70.1 mln) during the FY 2013 that was higher than the operating profit for the year. In these years, the profitability of the company decreased too and the net worth shrinking because of heavy losses over the past two years: Hotel Leela's debt-to-equity ratio has increased to six times from just about one time in March 2007.

According to the management of the company, the distress has been mainly caused by two factors: on the one hand the crash of the stock market in 2008 and on the other hand the new opening expansion was conducted in the period of the Commonwealth Games when land prices were higher if compared to previous years due to a revaluation of properties in the key areas of the country.

Driven by the good growth pre-crisis path, many players of the industry, including Hotel Leela, went into expansion mode: of the six properties, three, Udaipur (2009), New Delhi (2011), and Chennai (2013), started operations after 2008. The expansion of the Hotel Leela Bangalore's property happened in 2008 too. Therefore, of the company's current capacity of rooms, about half came into operations in the last-five years: this process of rapid growth has been hard to support for the company. This helped Hotel Leela to establish a wider presence across the country but along with the supply of rooms, depreciation and interest cost rapidly increase, combined with a reduction of occupancy rate and rentals that affected the overall industry. In synthesis, because of the effect has been a rapid rise of costs and a slowdown in revenue growth, the company was no longer able to repay back the debt. In order to face this crisis situation, in August 2013, carried on a fight-back strategy mainly based on assets divestiture: concretely the Kovalam property has been sold but the company continues operate the property under a management contract. In this 'asset light' model, the company is no longer the owner of the properties, but manages them under its brand name for a fee. In this optic, companies can reduce considerably the capital expenditure that has to be constantly allocated in order to maintain market share and reputation; moreover, from capex reduction, the firm benefits from a higher level of flexibility.

The Hotel Leela was referred by the State Bank of India (SBI) for corporate debt restructuring (CDR) in 2012 and raised approximately 1,000 crore (€140,1 mln.) through qualified institutional placement (QIP) and in 2014, the company obtained a bridge loan from Private Equity firm KKR. Of the outstanding debt of approximately 5,000 crore (€700,7 mln) as on June 2014, about 4,000 crores was under CDR with 17 lenders. However, 14 lenders out of 17 with an exposure of nearly 3,850 crore decided to sell their dues to JM Financial Asset Reconstruction Company that has started a process of assets divestiture selling some properties in order to monetize the debt.

The Hotel Leela intends to deleverage through monetization of its non-core assets and concretely the strategy consists in sale of the office space close to the Chennai properties and the Hyderabad one and start a joint-development real estate project on the Pune and Bangalore land that are two of the most fast-growing areas in the country. Moreover, the company was looking for equity through the sale of majority stake in its Delhi and Chennai properties to sovereign wealth funds.

However, despite this divestiture strategy in the fiscal year 2015, the company's operating profit was approx. 150 crore (€21,2 mln.) and the interest costs were stacked at 197 crores (€27,8 mln.). In the last year (2016), the disposal of assets process continued through the sale of Chennai and Goa property in order to reduce the company's debt to 2,500 crore (€354,4 mln.). Under this forced strategy, Hotel Leela is planning to switch to an asset-light business model based on the hotel

management and brand reputation and no longer on the properties ownership: thanks to this approach the company can reduce its operation riskiness.

Several hotel chains in the Western countries have applied this model (e.g. Starwoods and Marriotts) however, it still green and relatively new in India especially for companies with a long heritage. Most of the Indian chains that have been analyzed in the previous chapter (Taj Hotel, the Oberoi, etc.) tends to own their hotel especially in order to maintain high the reputation and the brand equity.

Indian hotel chains prefer to own their properties despite the common global industry trend and this can be an explanation of why local chains performance are struggling in the country.

Under this new business model and change in strategy, the company has to put into action, scaling down its “empire building” ambitions, the strong brand presence still not negatively affected and Hotel Leela can gain from a future increase in operational efficiency and revenues generated from hotel management.

4.2 Economic and financial analysis

In this paragraph financial amounts and ratios that better represent past performance of The Hotel Leelaventure Ltd. will be analyzed. The time horizon considered in our analysis is the last nine years in order to understand clearly the corporate performance before the distress. Before entering into a detailed analysis of the financial statements aimed to understand the causes of distress and assess the degree of crises coherently with the first theoretical chapters, it is useful to briefly consider the Hotel Leela's stock price ten years evolution in order to have a proxy of the value that the company has been able to generate overtime.

Figure 13.1: The Hetel Leela stock prices ten years trend



Source: Yahoo! Finance website

As we can see from the graph, the evolution of market price is drastically negative: perfectly according with management explanation to corporate crisis, the company has been deeply negative affected by the 2008 global financial crisis reaching minimum stock prices. However, after a two years recovery period (2009-2011) the stock's value drop down again and it is negatively stagnant since almost 3 years. If we compare the Hotel Leela stock price with those of its main competitors in the industry, (Indian listed companies) what emerge is that the Leela over-performed during the economic crisis times but it struggled more that all its competitors in finding a reliable exit path from the crisis. This could be due to the huge investments carried on in that years that generated an high level of debt.

What clearly emerge looking at following Figure 13.2 is that, a part from one competitor (the Kamat Hotels) in the last year the company was no longer able to generate significant value and its performance has been very poor compared with the rest of the players in the industry. This is an important signal that suggests that the Hotel Leela crisis is more internal than external: the industry has started growing and main competitors are able to pursue a positive path however, the Leela seems to be stacked in a declining phase.

The market clearly recognize this situation because of the poor value of the stock: on the 7 May, 2016 it was lower than INR 20,00 (€0,28). Moreover, the market seems to have not appreciated the huge assets-divestment strategy in order to repay the debt: this can be supposed looking at stock prices relative to that specific period (4Q FY2013 – 1Q FY2014).

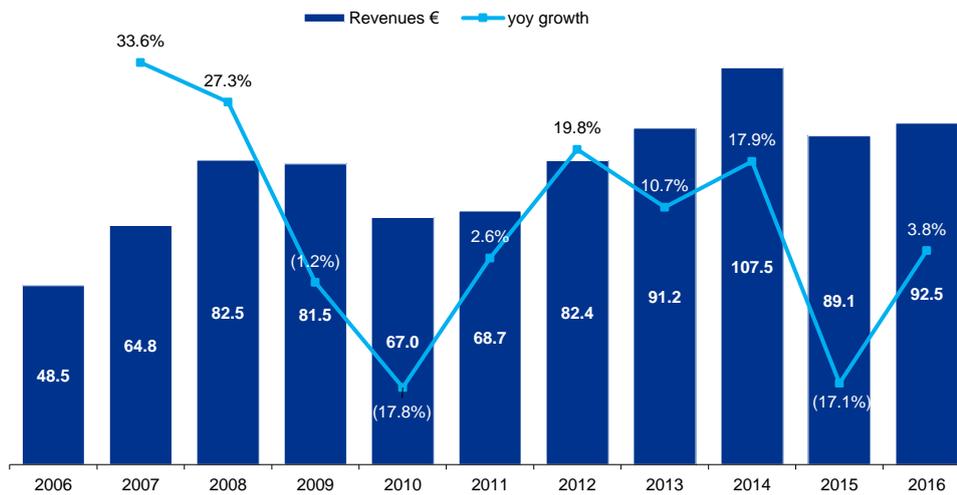
Figure 13.2: The Htel Leela and main industry players stock prices ten years trend



Source: Yahoo! Finance website

After the analysis of the stock prices,; the next figure presents an overview of the Revenues generated by the company in the period from 2006 to 2016 and the relative growth rate. From this point, in order to ease the reading, values will be expressed in Euros and not in Indian Rupee. The exchange rate has been fixed at 1,00 INR equal to 0,014 Euro according to the exchange rate provided by Yahoo! Finance on 24 April, 2017.

Figure 14: Revenues (€ mln) and yoy growth – The Hotel Leela



Source: Personal Elaboration from the company’s Annual Reports

The revenues compounded annual growth rate (CAGR) for the period 2006-2016 is 6.99% that results perfectly in line with industry growth: the company is able to generate revenues and attract customers. Moreover, from the analysis emerge a considerable revenues decline for the post crisis period (2010 and 2011) that however has not been reflected by the market because of average stock prices at maximum values. The revenues growth, as seen from the previous paragraph analysis, has been totally supported by a “new openings” strategy and not by the increase in the occupancy rate and sales of the consolidated available rooms/hotels. Once again, the revenues decline in 2015 has been characterized by the divesture of assets and to the gestation that occurred between the divesture and the management contract business model: this explains the slight growth of 2016.

In Figure 15, the Ebitda and its marginality if compared to revenues will be analyzed.

Figure 15: Ebitda (€ mln) and Ebitda margin trend – The Hotel Leela



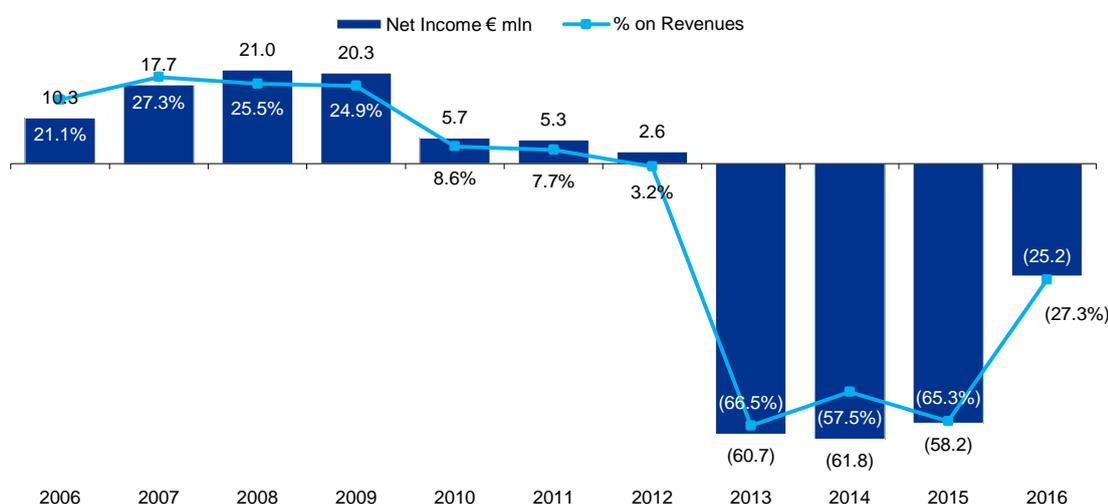
Source: Personal Elaboration from the company’s Annual Reports

The company’s marginality is deeply affected by quick openings strategy pursued by the company during past years. The relevant sales increase of the FY2012 if compared to the previous year has been detrimental for the marginality of the company that dropped from 31.9% to just 6.0%. this is mainly linked to the huge operating costs associated with running an extra property in portfolio: in the period between 2011 and 2012 the operating expenses levied from €46,8 mln in 2011 to €77,5 mln in 2012 due to the recent opening of the Leela Palace in New Delhi and the next opening of those in Chennai. This resulted into an EBITDA deterioration which passed from €22 mln in 2011 to €4.2 mln in 2012.

Another significant decrease occurred in 2015 where the EBITDA declined of approximately 10 pp. The main cause of poor margins are attributable the decrease of sales volume due to assets divesture and the stop of the operation of key properties: fixed costs affected the overall marginality of the company.

The same path is visible by looking at the evolution of net income in the years 2006-2015.

Figure 16.1: Net Income and NI marginality trend



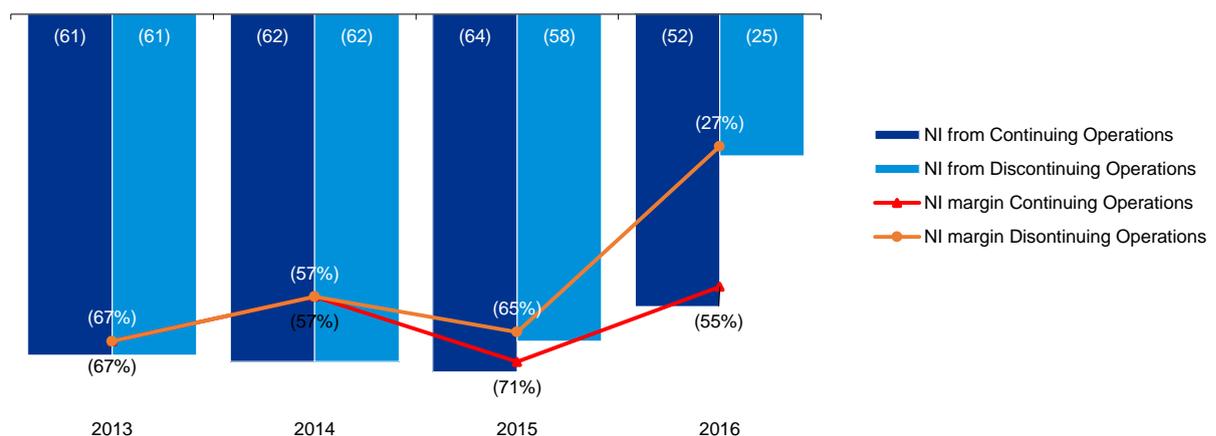
Source: Personal Elaboration from the company’s Annual Reports

From 2010 company's marginality started declining with an apparently suddenly decrease in 2013 NI marginality. However, this huge decrease of net income started in the previous year: during the fiscal year 2012 the Profit (Loss) generated from continuing operations was equal to €-55.4 mln totally covered by the sale of the Kovalam Hotel. In terms of the Corporate Debt restructuring (CDR) package, the company is required to reduce its debts by selling a Hotel in FY 2014 too, and also by selling and monetizing its non-core assets such as the land in Hyderabad, those in Bangalore and IT Park in Chennai. However in 2014 the Net Income still more negative than in 2013 because, while the sale of non-core assets took place, the company was no longer able to sell any properties because it has not received any binding offers.

During the FY 2015, the Corporate Debt Restructuring (CDR) Empowered Group declared that the account of the Company stands exited from CDR system on account of repayment's plan failure. Therefore, 14 of the CDR lenders with an exposure of about 95.6 % of the CDR overall debt assigned their dues to JM Financial Asset Reconstruction Company Private Limited (JMFARC) and, one lender with exposure of about 1% of the CDR debt, to Phoenix ARC Private Limited. The Company, coherently with the divesture strategy, in order to reduce the debt, sold its Goa Hotel in December 2015, and the entire amount net of expenses was utilized for repayment of part of its debt to ARCs and other lenders.

The following Figure represents the Net Income trend without the exceptional gains generated by the asset's divesture. Capitalization of assets allows the company to reduce fiscal year losses and reduce the negative marginality of 28 pp.

Figure 16.1: Net Income before and after discontinuing operations



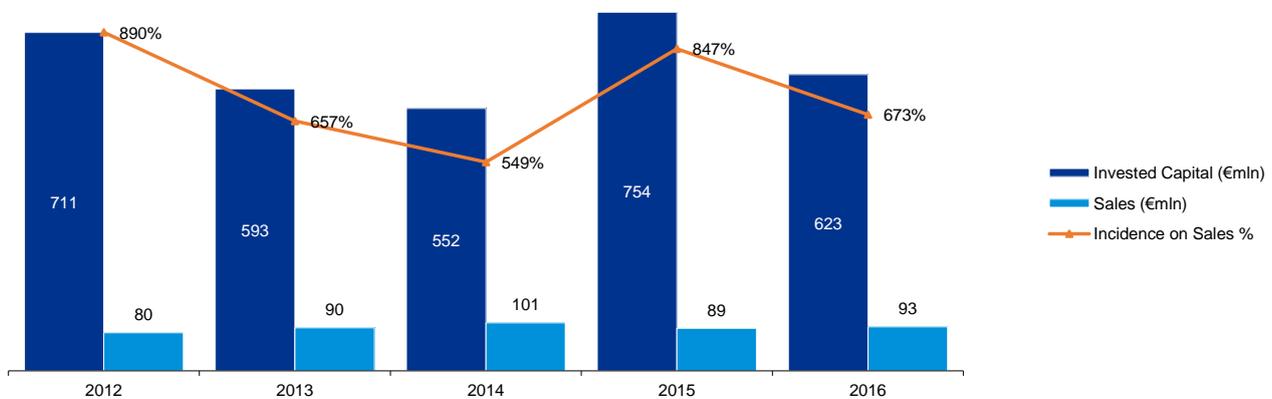
Source: Personal Elaboration from the company's Annual Reports

The ratio Invested Capital over sales is a useful estimator of firm's flexibility. The Hotel Leela invested capital appears higher in the last two financial years than in the past however, in 2013 and 2014, it has been deeply affected by current long term debt maturities, that have compensate the high

level of assets: in 2016 assets are decreased by 22.3% if compared to 2013.

The ratio Invested Capital on Sales clearly represents that the company is no longer able to benefit from huge investment it has carry on: this is in line with the previous analysis. Own real estate properties is a long-term investment that determines structural rigidity that makes impossible to adjust the level of invested capital according to sales fluctuation. In this view, the restructuring plan carried on by the Hotel Leela that forced the company to dismiss its assets can be seen as a structural change that can help the company to recover from this consolidated crisis, reducing the amount of capital invested more proportionally if compared with its capability to generate revenues. In Figure 17 a graphical representation.

Figure 17: Invested Capital and incidence on Sales trend



Source: Personal Elaboration from the company's Annual Report

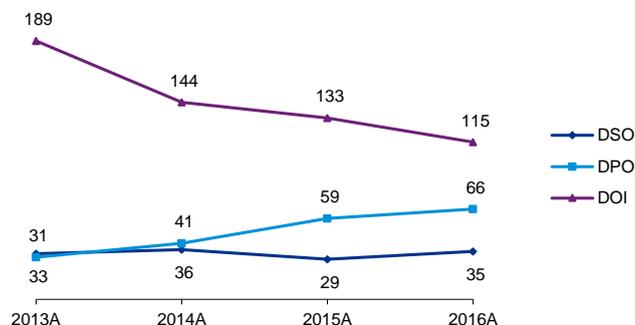
Another important analysis to conduct is those related to working capital in order to assess companies capability to generate Revenues. Ratio analysis highlights an extension of commercial cycle with an increase of both trade receivables days (DSO - Days Sales Outstanding), from 33 in 2013 to 35 in 2016 with a minimum of 29 days in 2015. The hotel business is characterized by immediate client's payments so the capability of the company to cash in approximately one month is perfectly in line with business dynamics considering that a relevant part of the companies revenues are generated by business clients such as airline crews that benefit from customized trading agreements with repayment scheduled at 90 days. By contrast, the increase of trade payables could be usually seen as symptom of company's bargaining power but in this scenario can reflect the difficulty of the company to repay its suppliers back sooner.

What is extremely relevant in this analysis is the huge inventory days the company has: this ratio shows in how many days the company is able to turn inventory into cash. The reduction of this ratio in the period from 2013 to 2016 is a positive indicators that can be influenced by a more focused and rational inventory approach or in a worst-case scenario by a reduction of the services provided: all

products that have to support the final service provided to the customer mainly link hotels inventory. Surely, a rationalization and simplification process, combined with a careful working capital management should help the company to find proper equilibrium on commercial cycle.

Figure 18: DSO, DPO, DOI analysis

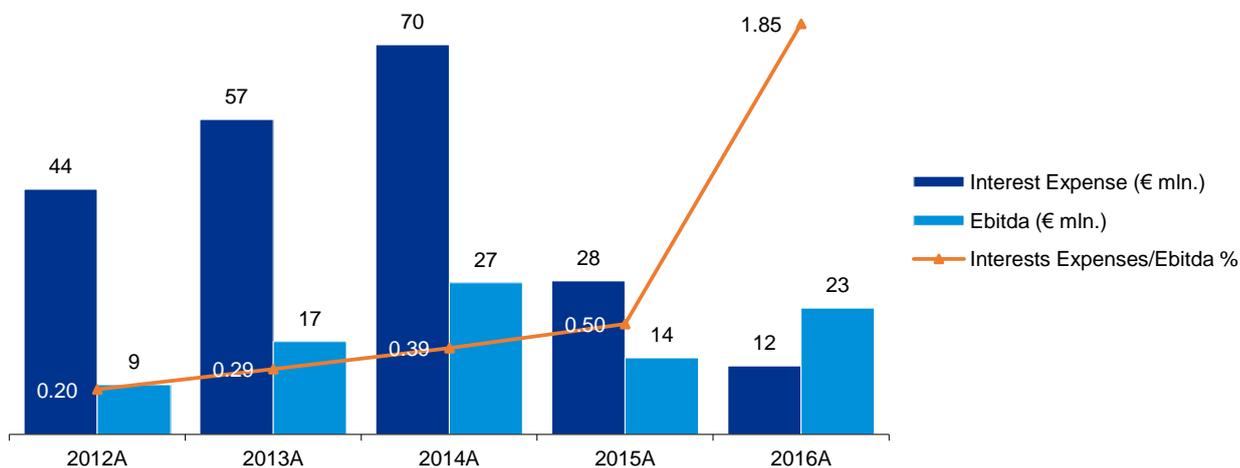
Cash Conversion Cycle				
€ mln.	2013A	2014A	2015A	2016A
Trade Recivables	8	10	7	9
Revenues	90	101	89	93
DSO	33	36	29	35
Trade Payables	(6)	(9)	(9)	(9)
Operating Costs	(74)	(80)	(56)	(52)
DPO	31	41	59	66
Inventory	(10)	(9)	(7)	(6)
COGS	(19)	(23)	(20)	(19)
DOI	189	144	133	115



Source: Personal Elaboration from the company's Annual Report

Another indicator that can be performed in order to asses company's performance is EBITDA on interest expense ratio: it shows the company's ability in repaying interest expenses and generate profits. The evolution of this ratio is graphically analyzed in Figure 19. When the ratio is lower than 1, it means that the firm is not able to repay the interest expenses with the earnings generated during the financial year: so, it has to obtain new debt in order to meet its obligation.

Figure 19.1: Interest expenses and Ebitda analysis



Source: Personal Elaboration from the company's Annual Report

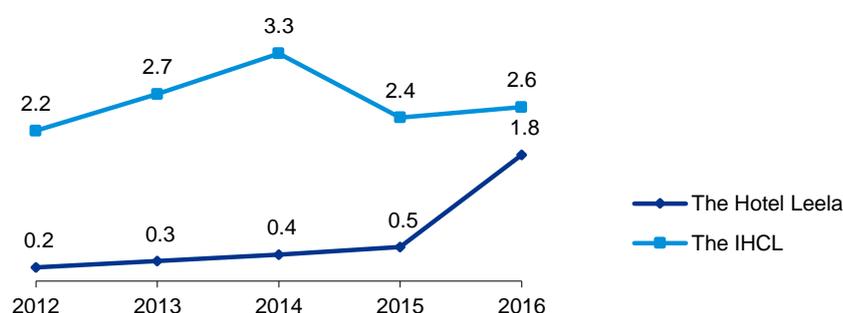
Due to the high leverage, Hotel Leela has to deal with high interest expense costs, much more higher than the earnings it was able to generate during the financial year. In 2014, the peak was generated by the company exit from the debt-restructuring plan: the Company's debts should have been restructured with longer repayment schedule stretching up to 2022 and lower interest rates. However, the company was no longer able to meet the interest for the FY 2012 and 2013 so lenders in exchange of a proper

recompense for their sacrifices have funded them and by the time the company exit from the CDR (2014) it has to refund the interest back.

In 2015 and 2016, the company has reduce its debt exposure versus banks due to the debt sale to JM Financial Asset Reconstruction Co. Pvt. Ltd. that is selling company tangible assets (PPE) in order to repay debts. The Hotel Leela has not made provision for interest on loans assigned to ARCs, as the Company is pursuing with the ARC for a viable restructuring package.

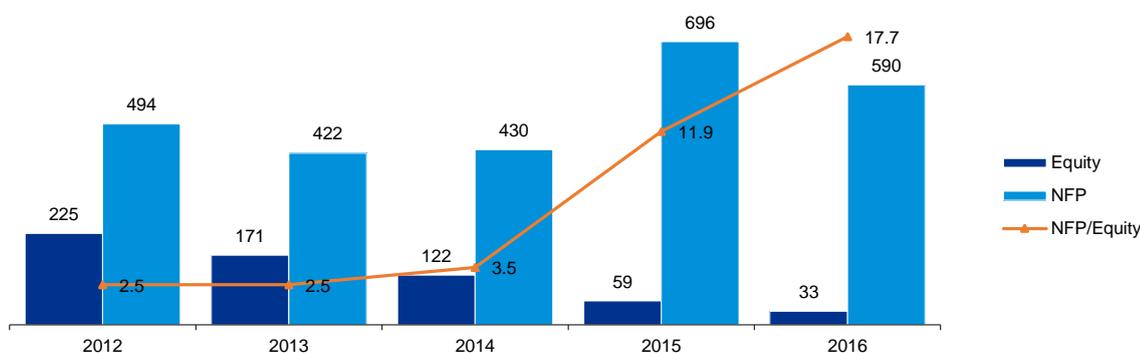
Making a comparison between Hotel Leela performance and those of the main player of the industry, the Indian Hotel Company Ltd. (IHCL), it is clear that the Hotel Leela has historically poorly managed its relation between interest expenses and Ebitda, if compared to IHCL.

Figure 19.2: Interest expenses and Ebitda analysis



Source: Personal Elaboration from the companys' Annual Report

Figure 20: Capital structure evolution



Net Financial Position detail					
€ mln	2012	2013	2014	2015	2016
Cash and Cash Equivalents	(16)	(5)	(4)	(4)	(6)
Financial borrow ings (LT)	498	380	361	699	596
Financial borrow ings (ST)	12	47	73	-	-
NFP/(Cash)	494	422	430	696	590

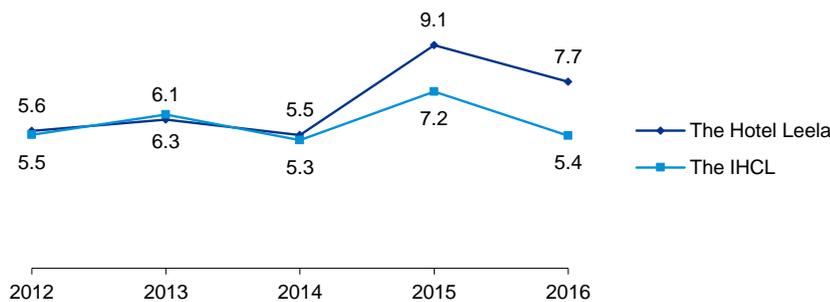
Source: Personal Elaboration from the company's Annual Report

Hotel Leela capital structure changed considerably during the period under analysis. In particular, from 2012, date of the beginning of restructuring interventions, the company has seen a progressive

erosion of equity due to a slightly increase of share capital and a reduction (-16%) of cumulated reserves. Moreover, the deficit cumulated during the year due to negative net income and the previous exercise closing balance has negatively contributed to the overall company's equity.

The company has seen an increase of the net financial position (if positive it reflects debt) comparing the actual data with those of 5 years ago: this has been mainly driven by the debt increase with HDFC Ltd. bank. The 2016 NFP reduction is due to the sale of the debt to JM Financial Asset Reconstruction Co. Pvt. Ltd. that has started the assets divesture process in order to cover the company's financial exposure. Always considering the NFP, that indicates the capability of the company to repay its debt back if they became due simultaneously on the day of calculation, using only its available cash and liquid assets, the appraiser can adopt the ratio NFP/EBITDA to assess the company ability to meet debt obligations using the earnings generated in the financial year. In Figure 21 a graphical representation.

Figure 21: NFP/Ebitda Ratio



Source: Personal Elaboration from the company's Annual Report

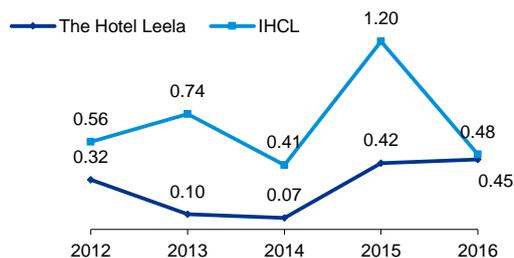
The Figure shows that Hotel Leela NFP/EBITDA is on average higher than the IHCL one, showing a greater difficulty to meet debt payments.

NFP/EBITDA is one of the ratios that can be used to give an overall rating class to the firm.

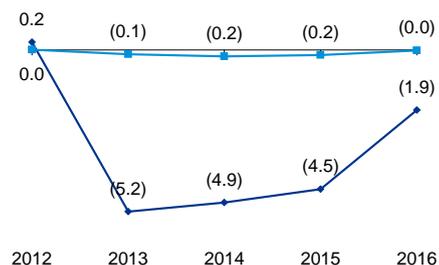
To conclude this analysis, the appraiser could assess a Current Ratio estimating the profitability of the company and the Return on Equity (ROE). In Figure 22 the graphical representation benchmarking the company's performance with those of the IHCL Group one.

Figure 22: Current Ratio and ROE

Current Ratio (CA/CL)



ROE



Source: Personal Elaboration from the company's Annual Report

Both companies have negative operating performances however, it is easily visible from the graph that the Hotel Leela performance is much more negative than those of its competitor. Despite of that, the ROE trend, is on a positive path due to the new asset divesture strategy: the 2016 net income before the extraordinary gains generated through the asset disposal is approximately €-52 mln, perfectly in line with those of the previous year.

4.3 Risks and uncertainties

The Hotel Leela operates in a global industry that strongly relies on positive macroeconomic conditions and the specific country growth and development rate. In recent years, the company has heavily suffered the global economic slow-down which lead to decreasing company-specific demand and a reduction of the single rooms' prices.

Moreover, as explained in the previous chapter, the market in which the company operates is highly competitive and the premium level services are difficult to further differentiate.

Indeed, the success of hotel companies in the next years will depend on the ability to increase local market share but also try to develop expansion plans in key cities abroad India in order to become international players.

Macroeconomic variables, which can significantly affect economic and financial situation of the company are the national GDP evolution, country development rate and unemployment rate and from a financial point of view the interest rates evolution.

Furthermore, the company had a critical corporate restructuring experience and the failure to meet the targets specified in the plan have strongly affected the previous strategy and business model making the business continuity not certain. However, the "asset light" business model can be seen as a new way of make business with a high orientation to flexibility and efficiency.

The main uncertainties and risks, which can compromise the Hotel Leela's business continuity in the next years, are analyzed in the following bullet points:

- The company is no longer under the Corporate Debt Restructuring plan since 30 June, 2014 because it was no longer able to satisfy the main condition of the CDR that was the debt reduction at INR 20,307 mln. (approx. €284 mln.). In May 2014, the CDR Empowered Group declared the failure of the CDR approving the exit of the company. Lenders with an exposure of about 95.6% of the CDR debt assigned their debt to JM Financial Asset Reconstruction Company Private Limited (JMFARC) and one more lender with exposure of about 1% of the CDR debt, to Phoenix ARC Private Limited. The Company is in the process of selling and monetizing its non-core assets and selling some of its hotels (such as the Goa's one) in order to reduce its debts.

The debt repayment is the first objective that the company has to achieve in order to have a chance to continue its operations with the new light business model. Actually it can be considered in a “Going to concern path” also because the financial interest related to the Asset Reconstruction Books were not provided in the books for the fiscal year 2016.

- Risks linked to the relationships with suppliers could influence the flexibility of the company. Moreover, as emerged from the previous analysis, company’s DPO has increased if compared to previous years.
- Risks connected with employees and management, on which finally depends the realization of strategic plan. In fact, Hotel Leela's operating and financial condition may create difficulties to attract and retain qualified human resources (especially management) compromising the company's future perspectives.
- Risks connected with the strict industry regulations and the future urban development policies of the country.
- Risks connected to the capability to do not loose quality standard and reputation due to the financial shortage in order to make the hotel management strategy a viable solution and still a potential investments for an equity partner that could invest in equity and refinance part of the debt. This also in the view of the current frizzling deal activity registered in the industry.

All these risks and uncertainties create difficulties to provide an accurate picture of the scenario the company can face in the next future. However, in the next chapter appropriate valuation methods will be applied to take into account volatile conditions and future uncertainties of the Hotel Leela Venture Ltd.

Chapter 5 - Valuation of The Hotel Leela Venture Ltd.

5.1 Introduction

The aim of this dissertation is to evaluate a distress company taking into account all the challenges and adjustments presented in the previous chapters: concretely this chapter is dedicated to the valuation of the Hotel Leela Venture Ltd.

As previously mentioned, valuation of a firm in crisis requires particular observations and the use of specific adjustments in order to represent the distress effects on firm's value.

Considering the Hotel Leela's crisis analyzed in the previous chapter and the main interventions and future actions that the company has to take into account, the following paragraphs will present some of the possible scenarios that the company can face in the next future. A reference scenario (or *base scenario*) has been implemented and it represents company's financial situation according to management expectations, interpreted reading through lines of the various company's Annual Reports and other newspaper articles. Despite of the base scenario, a best and a worst scenarios (both performed with a conservative approach) have been considered to include in the free cash flows projections the uncertainty about the crisis evolution.

Then the following paragraph will be focused on the valuation of the Hotel Leela Venture Ltd. by applying the Adjusted Present Value (APV) method in the explicit forecasting period and the traditional Discounted Cash Flow (DCF) formulation for continuing value. APV methodology allows to better reflect capital structure dynamics of a firms in trouble. The discount rate used in the model is the unlevered *cost of capital* (K_U), determined using the Capital Asset Pricing Model (CAPM) technique. This choice allows the appraiser to avoid the difficulty of estimating a dynamic WACC that change every year according to the debt to equity ratio, determined at market values. In the continuing value calculation a fixed and target capital structure is assumed and it has been estimated in line with those of company's main comparable. However, even this choice is not exempt of complications which will be analyzed and partially solved in the following pages.

To improve our valuation estimates, beside the DCF valuation, Option Pricing Valuation (OPV) will be applied. From the applied model it is possible to obtain the probability of default for the firm being valued that is a fundamental input of DCF model adjusted for probability of default. This model can improve the overall valuation accuracy creating a new scenario that reflects the value of the company in case of an imminent liquidation.

To conclude, some final considerations about the results obtained and the main criticisms underlying the valuation process are applied.

5.2 Valuation parameters

Analyzing the Annual Reports that the management of the company annually provides to its shareholders, some key findings and estimates about the company strategy for the next years can be assessed. As explained in the previous chapter the main strategic driver that will affect company's future performance is the "asset light" strategy through which the company will partially change its business model no longer relying only on owned properties but also managing hotel properties in exchange of a fee.

The company, thanks to its strong brand reputation can achieve this goal. Moreover, due to the large amount of debt that has been sold from banks to an ARC, the company will see a future declining of its real estate assets. Nevertheless, Hotel Leela has signed several properties Management Contracts including a luxury residential building in Bangalore and it has signed some Memorandum of Understanding (MOU) with real estate companies and project developers. These value drivers, together with significant structural cost reduction from the restructuring program and the reduction of business complexity and the associated costs related to the owned properties, should allow the company to obtain a performance improvement despite of a Revenues reduction driven by an higher marginality. However, the firm's evolution is influenced by several risks and uncertainties that could compromise the recovery and business continuity: the presence of a huge level of debt on which the company has to pay relevant interest rates can be seen as major limitation to company's future operation. However, due to the success that the company seems to obtain in "managing properties" field, the expectation is that it will continue to operate in future. For this reason will be adopted a valuation framework that presents the going concern prerequisite.

In order to take into account the risks associated with the crisis situation and the relevant uncertainties about the future, the valuation is carried out through a scenarios analysis.

The creation of a reference scenario (base case) is based on the management indications that have been appraised from the annual report of the company: there is no certificate restructuring or strategic plan. Then, the base scenario assumptions have been modified in a more optimistic or conservative view in order to consider some uncertainty profile. These adjustments are only related to the operational aspect of the company such as revenues and operating expenses.

Finally, by assigning a specific probability to each scenario the firm's expected value will be determined.

The valuation reference date is 31 March, 2016 that is the date of the last approved fiscal year and annual report. The time interval considered for the explicit forecasting period is three years due to the lack of certified information from company's management and the high uncertainty besides company's sustainability. Nevertheless, the expectation is that the Hotel Leela will be able to reach

by 2019 normal going concern conditions reaching a steady state.

Assumptions about main variables on which the valuation is based have been particularly complex given the impossibility to obtain detailed data from industrial plan, for which only guidelines were published. Moreover, given the crisis situation and the non-primary relevance for the market, the company is not adequately covered by financial analysts.

The restructuring process is based on a change in business model switching to an asset light strategy because of the sale of PPE in order to face the huge amount of debt.

5.3 Scenarios analysis

Base scenario makes reference to going concern perspective draft in the last available annual report that is related to the FY 2016. The future reorganization strategy is based on operate hotels through Management Contracts, instead of owning hotels and has executed Memorandum of Understanding with some reputed developers to manage their hotels and residences being developed by them. Properties at Bangalore, Jaipur, Agra, and Chandigarh are those where new properties are at different stages of planning and implementation. This strategy will be supported by a careful cost reduction policy. Furthermore, financial strengthening could be pursued by a capital increase provided by new investors: that is a common trend in this industry nowadays.

Due to the change in business model, the company will reduce its amount of revenues generated by owning properties such as room and food revenues and will progressively increase the revenues from managing properties. In this process, the company will achieve a higher efficiency due to the reduction of the number of hotels that has to be owned and managed letting the company increase its owned-rooms marginality. The main driver of revenues in both cases are the number of rooms owned or managed, the occupancy rate that according to industry surveys is increasing and the revenues daily generated per room.

Revenues generated by owned properties are higher than the fees the company gains from simply managing the hotel however, in the next future, the company will no longer be able to invest in new properties so the new mission will be focused on the marginality increase of current operated properties trying to become a well-reputed leader the premium-hotel management scenario that is spreading in the Indian market due to a quick real estate development growth.

Sales growth rate related to Room revenues underlying both base case and the other scenarios is negative due to the progressive reduction in owned rooms caused by assets divestiture. However, revenues are supported, also if less than proportionally, by those generated by the asset management activities that, in the long run will maybe become the core business if the company. Revenues will be enhanced by an increasing occupancy rate that it is driven by industry intrinsic growth rate

expectations.

The following table illustrates the assumptions on sales growth rates in the base scenario.

Table 13.1: Sales growth rates assumptions underlying base case

Revenues Breakdown							
€'000	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Room Revenues	49.8	53.1	43.5	46.9	38.9	31.0	29.1
# Rooms	1,617	1,619	1,514	1,408	1,082	828	748
<i>New openings (# rooms)</i>					(326)	(254)	(80)
<i>Occupancy Rate</i>	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
<i>Average income per room (€ day)</i>	141.7	150.9	130.1	148.9	151.8	154.9	158.0
Food Revenues	29.3	35.4	34.0	33.9	28.2	22.9	22.0
% on revenues	32.5%	35.1%	38.1%	36.7%	34.9%	33.6%	32.0%
Revenues from managed hotels	2.2	2.1	1.9	2.6	4.3	5.2	8.4
# Rooms	594	594	937	1,280	1,780	1,938	2,788
<i>New openings (# rooms)</i>					500	158	850
<i>Occupancy Rate</i>	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
<i>Average income per room (€ day)</i>	16.9	16.3	9.2	9.2	10.1	11.2	12.3
Revenues from rental & services	185.1	177.1	162.0	120.7	129.9	111.7	113.4
% on revenues	5.2%	4.7%	5.2%	3.6%	4.7%	5.0%	5.5%
Other operating revenues	6.4	7.5	7.5	7.4	7.5	7.5	7.5
% on revenues	12.8%	14.1%	17.3%	15.8%	15.0%	15.3%	15.6%
Revenues from operation	90.3	100.6	89.1	92.5	80.8	68.2	68.7
Other Revenues	66.9	497.3	66.2	94.3	96.2	98.1	100.0
Total Income	91.2	107.5	90.0	93.8	82.1	69.6	70.1

Source: Personal elaboration

Table 13.2: Forecasting Period Rooms' evolution

New Openings (under management)			
# of rooms	2017F	2018F	2019F
Bhartiya City Developers Private Ltd. - Chennai	250		
Supertech Realtors Private Ltd. - Noida (Delhi)	250		
Agra		100	
Jaipur		58	
Bengaluru			250
Karnataka			150
Chandigarh			275
Kathmandu, Nepal			175
Total	500	158	850

Assets Divesture			
# of rooms	2017F	2018F	2019F
The Leela Palace, Chennai	(326)		
The Leela Palace, Udaipur		(80)	
The Leela Palace, Delhi			(254)
Total	(326)	(80)	(254)

Source: Personal Elaboration from company's Annual Reports (2013 – 2016)

Despite the reduction in rooms' revenues, the EBITDA margin is expected to improve overtime as the company will benefit from reorganization and restructuring. Based on the underlying assumptions, EBITDA margin will increase from 24.3% (2016) to 26.8% in 2017 reaching the 30,8% in 2019. This is mainly due to the reduction of maintenance costs related to properties and a reduction of all service costs and personnel expenses weighted to the number of rooms that the company has to operate. Moreover, the estimated +1.0% year-over-year occupancy rate growth

contributes to enhance marginality.

Operational costs have been estimated coherently with the historical incidence on revenues and staff costs and maintenance are estimated accordingly the prospective number of room the Hotel Leela operates.

Depreciation and amortization is expected to vary proportionally with total operating fixed capital and it reflect the company's actions.

One of the pillar when forecasting Balance Sheet was the estimation of working capital.

Working capital management involves the relationship between a firm's short term assets and its short-term liabilities so, the goal of working capital management is to ensure that a firm is able to continue its operations and that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses. Hotels' business have operating cycle, which begins with the purchase of supplies and ends with the collection of accounts receivables. Due to this operating cycle, sales do not convert into cash instantaneously also if from the analysis performed in the previous chapter the cash conversion time of the Hotel Leela is approximately one month. Therefore, sufficient working capital is required to sustain sales activity during the operating cycle period. This capital is required to finance daily operations such as maintenance, personnel and high-end services.

One of the dimensions in working capital management is to determine the optimal level of current assets and current liabilities. Both too high or too low levels of working capital has their respective dangers, so working capital management requires a trade-off between these dangers and the related costs. More specifically, higher level of current assets strengthens the liquidity position of a firm but weakens the profitability while a lower level of current assets shows better utilization of resources but it may have its own dangers in the form of liquidity crunch. So, it is of primary importance that companies could have a balance between liquidity and profitability. Another primary dimension especially in this hotel industry scenario is those related to the working capital is the financing of current assets.

Considering the nature of hotel business and the specify of the Hotel Leela, where sales are converted into cash relatively quickly, current assets are a small percentage if compared to total assets.

Despite of that, Hotel Leela Working capital has been affected especially in 2013 and 2014 by huge short term debt that the company has used and in a certain way is still using in order to finance its PPE's investments. In the forecasting years working capital level will gradually reduce but it still negative and it has been projected accordingly to the last two year average of DPO, DSO and DOI that are in line which industry trends.

The progressive reduction of financial debt is driven by the asset divesture mechanism explained in previous pages.

Best scenario, or *best case*, is based on more optimistic assumptions on sales growth rates both those generated by room sales and those generated from the management properties. Concretely, the underlying assumption relies on a 10% increase of revenues per room generated by managed properties that considering the ambitious projects that the company is undertaking could be a realistic scenario too. Moreover, this positive effect will be enhanced by a reduction of cost of supply and services starting from the same first forecasting year.

In base case, EBIT is assumed to increase from € -10.8 million in 2016 to € 11.4 million in the last year of projections thanks to the success of new business model. Finally, all scenarios consider a reduction of the invested capital due to assets divesture and the related reduction the tangible assets during the forecasting period.

In worst scenario, due to the high uncertainty presented in this plan, the recovery of sales is much more flat.

In Table 14 are illustrated the revenues breakdown assumptions used for the analysis of the three scenarios.

Table 14.1: Revenues Breakdown – Base Case

Revenues Breakdown - Base Case							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Room Revenues	49.8	53.1	43.5	46.9	38.9	31.0	29.1
# Rooms	1,617	1,619	1,514	1,408	1,409	1,409	1,410
Occupancy Rate	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
Average income per room (€ day)	141.7	150.9	130.1	148.9	151.8	154.9	158.0
Food Revenues	29.3	35.4	34.0	33.9	28.2	22.9	22.0
% on revenues	59%	67%	78%	72%	72%	74%	75%
Revenues from managed hotels	2.2	2.1	1.9	2.6	4.3	5.2	8.4
# Rooms	594	594	937	1,280	1,780	1,938	2,788
Occupancy Rate	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
Average income per room (€ day)	16.9	16.3	9.2	9.2	10.1	11.2	12.3
Revenues from rental & services	2.6	2.5	2.3	1.7	1.8	1.6	1.6
% on revenues	5%	5%	5%	4%	5%	5%	5%
Other operating revenues	6.4	7.5	7.5	7.4	7.5	7.5	7.5
% on revenues	13%	14%	17%	16%	15%	15%	16%
Revenues from operation	90.3	100.6	89.1	92.5	80.8	68.2	68.7

Source: Personal Elaboration

Table 14.2: Revenues Breakdown – Best Case

Revenues Breakdown - Best Case							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Room Revenues	49.8	53.1	43.5	46.9	40.1	32.8	31.8
# Rooms	1,617	1,619	1,514	1,408	1,082	828	748
Occupancy Rate	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
Average income per room (€ day)	141.7	150.9	130.1	148.9	156.3	164.1	172.3
Food Revenues	29.3	35.4	34.0	33.9	29.0	24.3	24.0
% on revenues	59%	67%	78%	72%	72%	74%	75%
Revenues from managed hotels	2.2	2.1	1.9	2.6	4.7	6.2	11.0
# Rooms	594	594	937	1,280	1,780	1,938	2,788
Occupancy Rate	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
Average income per room (€ day)	16.9	16.3	9.2	9.2	11.1	13.3	15.9
Revenues from rental & services	2.6	2.5	2.3	1.7	1.9	1.7	1.7
% on revenues	5%	5%	5%	4%	5%	5%	5%
Other operating revenues	6.4	7.5	7.5	7.4	7.5	7.5	7.5
% on revenues	13%	14%	17%	16%	15%	15%	16%
Revenues from operation	90.3	100.6	89.1	92.5	83.2	72.5	76.0

Source: Personal Elaboration

Table 14.3: Revenues Breakdown – Worst Case

Revenues Breakdown - Worst Case							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Room Revenues	49.8	53.1	43.5	46.9	38.9	31.0	29.1
# Rooms	1,617	1,619	1,514	1,408	1,082	828	748
Occupancy Rate	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
Average income per room (€ day)	141.7	150.9	130.1	148.9	151.8	154.9	158.0
Food Revenues	29.3	35.4	34.0	33.9	28.2	22.9	22.0
% on revenues	59%	67%	78%	72%	72%	74%	75%
Revenues from managed hotels	2.2	2.1	1.9	2.6	4.1	4.8	7.3
# Rooms	594	594	937	1,280	1,780	1,938	2,788
Occupancy Rate	60.4%	60.4%	61.3%	62.1%	65.8%	67.1%	68.5%
Average income per room (€ day)	16.9	16.3	9.2	9.2	9.7	10.2	10.7
Revenues from rental & services	2.6	2.5	2.3	1.7	1.8	1.6	1.6
% on revenues	5%	5%	5%	4%	5%	5%	5%
Other operating revenues	6.4	7.5	7.5	7.4	7.5	7.5	7.5
% on revenues	13%	14%	17%	16%	15%	15%	16%
Revenues from operation	90.3	100.6	89.1	92.5	80.6	67.8	67.6

Source: Personal Elaboration

In Table 15 are illustrated the assumptions related to the costs estimations used for the analysis of the three scenarios.

Table 15.1: Opex Breakdown – Base Case

Operating Expenses Breakdown - Base Case							
€ mln	2013A	2014A	2015A	2016A	2017A	2018A	2019A
Cost of material consumed	7.1	8.7	8.4	8.6	7.1	6.2	6.3
% on revenues	8%	9%	9%	9%	9%	9%	9%
Consumption of store and supplies	12.1	14.0	11.9	10.8	10.6	8.9	9.0
% on revenues	13%	14%	13%	12%	13%	13%	13%
Cost of services	15.8	15.2	17.7	12.1	13.3	11.2	11.3
% on revenues	18%	15%	20%	13%	16%	16%	16%
Repair and maintainance	5.4	6.4	5.3	5.0	3.8	2.9	2.7
Staff cost/# of rooms	0.24x	0.28x	0.25x	0.25x	0.25x	0.25x	0.25x
Staff cost	26.1	27.7	26.3	26.9	18.8	14.7	13.4
Staff cost/# of rooms	1.15x	1.22x	1.24x	1.37x	1.24x	1.27x	1.28x
Rental expenses	5.3	5.5	5.1	5.1	4.6	3.9	3.9
% on revenues	6%	5%	6%	6%	6%	6%	6%
Other operating expenses	2.6	2.8	1.7	2.5	2.1	1.7	1.6
% on revenues	3%	3%	2%	3%	3%	2%	2%
Total OPEX	74.5	80.3	76.3	71.1	60.3	49.5	48.1

Source: Personal Elaboration

Table 15.2: Opex Breakdown – Best Case

Operating Expenses Breakdown - Best Case							
€ mln	2014A	2015A	2016A	2017A	2018A	2019A	
Cost of material consumed	7.1	8.7	8.4	8.6	7.1	6.2	6.3
% on revenues	8%	9%	9%	9%	9%	9%	9%
Consumption of store and supplies	12.1	14.0	11.9	10.8	9.4	8.0	8.0
% on revenues	13%	14%	13%	12%	12%	12%	12%
Cost of services	15.8	15.2	17.7	12.1	10.6	9.0	9.0
% on revenues	18%	15%	20%	13%	13%	13%	13%
Repair and maintainance	5.4	6.4	5.3	5.0	3.8	2.9	2.7
Staff cost/# of rooms	0.24x	0.28x	0.25x	0.25x	0.25x	0.25x	0.25x
Staff cost	26.1	27.7	26.3	26.9	18.8	14.7	13.4
Staff cost/# of rooms	1.15x	1.22x	1.24x	1.37x	1.24x	1.27x	1.28x
Rental expenses	5.3	5.5	5.1	5.1	4.6	3.9	3.9
% on revenues	6%	5%	6%	6%	6%	6%	6%
Other operating expenses	2.6	2.8	1.7	2.5	2.1	1.7	1.6
% on revenues	3%	3%	2%	3%	3%	2%	2%
Total OPEX	74.5	80.3	76.3	71.1	56.5	46.3	44.9

Source: Personal Elaboration

Table 15.3: Opex Breakdown – Worst Case

Operating Expenses Breakdown - Worst Case							
€ mln	2014A	2015A	2016A	2017A	2018A	2019A	
Cost of material consumed	7.1	8.7	8.4	8.6	7.1	6.2	6.3
% on revenues	8%	9%	9%	9%	9%	9%	9%
Consumption of store and supplies	12.1	14.0	11.9	10.8	10.9	9.2	9.3
% on revenues	0.13x	0.14x	0.13x	0.12x	14%	14%	14%
Cost of services	15.8	15.2	17.7	12.1	14.1	12.0	12.0
% on revenues	0.18x	0.15x	0.20x	0.13x	18%	18%	18%
Repair and maintenance	5.4	6.4	5.3	5.0	3.8	2.9	2.7
Staff cost/# of rooms	0.24x	0.28x	0.25x	0.25x	0.25x	0.25x	0.25x
Staff cost	26.1	27.7	26.3	26.9	18.8	14.7	13.4
Staff cost/# of rooms	1.15x	1.22x	1.24x	1.37x	1.24x	1.27x	1.28x
Rental expenses	5.3	5.5	5.1	5.1	4.6	3.9	3.9
% on revenues	6%	5%	6%	6%	6%	6%	6%
Other operating expenses	2.6	2.8	1.7	2.5	2.1	1.7	1.6
% on revenues	3%	3%	2%	3%	3%	2%	2%
Total OPEX	74.5	80.3	76.3	71.1	61.6	50.5	49.2

Source: Personal Elaboration

In Table 16 is provided the results of the three scenarios assumptions on the Income Statement.

Table 16.1: Income Statement – Base Case

Income Statement - Base Case							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Revenues from operation	90.3	100.6	89.1	92.5	80.8	68.2	68.7
Other Revenues	0.9	7.0	0.9	1.3	1.3	1.4	1.4
Total Income	91.2	107.5	90.0	93.8	82.1	69.6	70.1
COGS	(19.3)	(22.7)	(20.2)	(19.4)	(17.7)	(15.1)	(15.3)
First Margin	71.9	84.9	69.8	74.4	64.4	54.5	54.8
% on Total Income	78.9%	78.9%	77.5%	79.3%	78.5%	78.3%	78.2%
Total Operating Expenses	(74.5)	(80.3)	(56.0)	(51.7)	(42.6)	(34.4)	(32.9)
EBITDA	16.7	27.3	13.8	22.8	21.8	20.1	21.9
% on Total Income	18.3%	25.4%	15.3%	24.3%	26.6%	28.9%	31.3%
EBIT	(2.7)	2.0	(18.0)	(10.8)	(1.6)	3.7	11.4

Source: Personal Elaboration

Table 16.2: Income Statement – Best Case

Income Statement - Best Case							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Revenues from operation	90.3	100.6	89.1	92.5	83.2	72.5	76.0
Other Revenues	0.9	7.0	0.9	1.3	1.3	1.4	1.4
Total Income	91.2	107.5	90.0	93.8	84.5	73.9	77.4
COGS	(19.3)	(22.7)	(20.2)	(19.4)	(17.0)	(15.0)	(15.8)
First Margin	71.9	84.9	69.8	74.4	67.5	58.9	61.5
% on Total Income	78.9%	78.9%	77.5%	79.3%	79.8%	79.7%	79.6%
Total Operating Expenses	(74.5)	(80.3)	(56.0)	(51.7)	(40.5)	(33.0)	(32.2)
EBITDA	16.7	27.3	13.8	22.8	27.0	25.8	29.4
% on Total Income	18.3%	25.4%	15.3%	24.3%	32.0%	35.0%	38.0%
EBIT	(2.7)	2.0	(18.0)	(10.8)	3.6	9.4	18.8

Source: Personal Elaboration

Table 16.3: Income Statement – Worst Case

Income Statement - Worst Case							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Revenues from operation	90.3	100.6	89.1	92.5	80.6	67.8	67.6
Other Revenues	0.9	7.0	0.9	1.3	1.3	1.4	1.4
Total Income	91.2	107.5	90.0	93.8	81.9	69.1	69.0
COGS	(19.3)	(22.7)	(20.2)	(19.4)	(18.0)	(15.3)	(15.3)
First Margin	71.9	84.9	69.8	74.4	63.9	53.8	53.6
% on Total Income	78.9%	78.9%	77.5%	79.3%	78.0%	77.9%	77.8%
Total Operating Expenses	(74.5)	(80.3)	(56.0)	(51.7)	(43.4)	(35.0)	(33.3)
EBITDA	16.7	27.3	13.8	22.8	20.5	18.8	20.3
% on Total Income	18.3%	25.4%	15.3%	24.3%	25.0%	27.2%	29.4%
EBIT	(2.7)	2.0	(18.0)	(10.8)	(2.9)	2.4	9.7

Source: Personal Elaboration

5.4 The Hotel Leela Venture Ltd. valuation: APV technique in mixed version

In this paragraph Hotel Leela's value will be determined by using the Adjusted Present Value method taking into account some adjustments. In this case, APV technique is used for the estimation of firm's economic value during the explicit forecasting period and the traditional Discounted Cash Flow valuation approach is used for the estimation of continuing value.

As mentioned in the previous chapters, the problem of using DCF methods that implies the estimation of the cost of capital (WACC) as discount rate, relies to the estimation of the market ratio between debt and equity: the conventional practice to assume a target capital structure for the entire forecasting period is not applicable due to the high volatility of projected debt/equity ratio.

Furthermore, circularity of the model is another important issue of traditional DCF/WACC approach. In fact, equity value is an important input of WACC calculation which affect at the same time the enterprise value of the firm and thus indirectly its equity value.

Estimation of the market value of debt is another important issue the analyst should take into account when valuing distressed companies. In a healthy scenario, nominal and market value of debt tend to coincide because there is a high probability the firm will be able to fulfill its debt payments and pay back money to debt holders. However, as is going to happen in this specific case, there is an accountable probability the firm will result insolvent at debt maturity or part of debt could be converted in equity if any investors is willing to fund the company. For this reason, market value of debt can be significantly lower than its face value making complex WACC determination.

Moreover, Hotel Leela's debt is both provided by banks and by other financial institutions in various forms so the real value of this debt instruments is not easy to directly observe in the market. In order to limit the errors deriving from previous considerations the appraiser could discount

expected free cash flows at a rate different from WACC: the discount rate applied in APV method is the unlevered cost of capital, which can be estimated from market information of comparable firms. This allows the appraiser to incorporate in the firm's value the uncertainty concerning different sales growth rates, operating expenses variations, EBITDA margin and all the other variables discussed in the previous paragraph.

Free cash flows associated to each scenario are reported in the following tables.

Table 17: FCF – Scenario analysis

Free Cash Flow - Base Case						
<i>€ mln</i>	2014A	2015A	2016A	2017F	2018F	2019F
EBIT	2.0	(18.0)	(10.8)	(1.6)	3.7	11.4
Nopat	1.4	(12.6)	(7.6)	(1.1)	2.6	8.0
Δ Working Capital	41.2	(252.1)	7.5	5.8	(5.4)	(0.8)
D&A	19.1	24.9	23.1	23.4	16.4	10.6
CAPEX	1.4	6.6	102.9	84.1	69.8	58.6
Δ Provision	(0.0)	0.7	(1.2)	(0.7)	(0.7)	0.0
Δ DTA/DTL	(7.0)	(9.2)	(1.0)	0.0	0.0	0.0
Free Cash Flow	56.1	(241.7)	123.8	111.6	82.7	76.3

Free Cash Flow - Best Case						
<i>€ mln</i>	2014A	2015A	2016A	2017F	2018F	2019F
EBIT	2.0	(18.0)	(10.8)	3.6	9.4	18.8
Nopat	1.4	(12.6)	(7.6)	2.5	6.6	13.2
Δ Working Capital	41.2	(252.1)	7.5	5.4	(5.6)	(1.3)
D&A	19.1	24.9	23.1	23.4	16.4	10.6
CAPEX	1.4	6.6	102.9	84.1	69.8	58.6
Δ Provision	(0.0)	0.7	(1.2)	(0.5)	(0.6)	0.2
Δ DTA/DTL	(7.0)	(9.2)	(1.0)	0.0	0.0	0.0
Free Cash Flow	56.1	(241.7)	123.8	114.9	86.6	81.2

Free Cash Flow - Worst Case						
<i>€ mln</i>	2014A	2015A	2016A	2017F	2018F	2019F
EBIT	2.0	(18.0)	(10.8)	(2.9)	2.4	9.7
Nopat	1.4	(12.6)	(7.6)	(2.1)	1.7	6.8
Δ Working Capital	41.2	(252.1)	7.5	5.9	(5.3)	(0.8)
D&A	19.1	24.9	23.1	23.4	16.4	10.6
CAPEX	1.4	6.6	102.9	84.1	69.8	58.6
Δ Provision	(0.0)	0.7	(1.2)	(0.7)	(0.7)	(0.0)
Δ DTA/DTL	(7.0)	(9.2)	(1.0)	0.0	0.0	0.0
Free Cash Flow	56.1	(241.7)	123.8	110.7	81.8	75.2

Source: Personal Elaboration

In the scenario analysis FCF are driven by the Ebit value that as showed in the previous tables is influenced by revenues and costs and by changes in Working Capital driven by inventories and trade payables and receivables that are implicated sensible to changes in Revenues and costs because of the forecasting model is built on DPO, DSO and DOI.

The positive value of Capex means that the company is not investing but selling its assets and this

is coherent with the new company's business model.

5.4.1 Unlevered cost of capital calculation

When applying the APV method the appraiser has to determine the levered value of the firm as the sum between its unlevered value (the firm's value in absence of debt) and the fiscal benefit of debt.

The unlevered value of the firm is determined by discounting free cash flows at the unlevered cost of capital (k_u) as synthetize in the following formula where, R_f is the risk-free rate, R_P is the country specific risk premium, R_m is the market risk premium, S_P is the discretionary size premium applied to small-size companies (source: Ibbotson 2015) and β_u is the beta unlevered.

$$K_u = R_f + R_P + (R_m * \beta_u) + S_P$$

In this valuation, the risk-free rate was assumed equal to 2.32%, which corresponds to the return of the U.S. Treasury Government Bond with 10 years maturity, average 6 months. The country risk premium has been estimated according to A. Damodaran projections that are freely available at his web-site and updated at January 2017: R_P is equal to 3.13%; the value is estimated according to the specific Indian country risk premium. Hotel Leela operates only in the Indian market so there is no need to weight the country premium for the percentage of revenues generated in each market. Market risk premium was assumed equal to 5.69% and the value is coherent with the risk free rate applied being related to average mature market general risk accordingly to A. Damodaran database. The size premium is in line with those provided by Ibbotson and it refers to small capitalization listed companies. The unlevered beta has been estimated equal to the average without outliers of those of comparable companies (Table 20). To conclude the unlevered cost of capital is equal to 13.4% as detailed in Table 18.

Table 18: The unlevered cost of capital

Unlevered cost of capital - K_u		
Ku parameter		
Risk free	2.32%	U.S. Govt Bond 10Y Average at 6 months
Beta Unlevered	0.74	Average beta without outliers from comparable companies analysis
Market risk premium	5.7%	
Country risk premium	3.1%	Specific Indian risk premium (Source: Damodaran, January 2017)
Size Premium	3.7%	Source: Ibbotson 2015
Cost of Capital (Ku)	13.4%	

Source: Personal elaboration, Damodaran web site, market data provider

5.4.2 Explicit forecasting period valuation

The estimation of the Hotel Leela's unlevered cost capital allows the appraiser to determine firm's value during the explicit (2017 - 2019) forecasting period. In order to estimate the company's enterprise value for the period 2017 - 2019 the appraiser has to discount the previously presented FCF at the unlevered cost of capital.

Tax shield valuation requires to discount fiscal benefits of debt at a rate equal to the unlevered cost of capital: the fiscal benefits could be assumed as risky as business operations. In Table 19, Hotel Leela valuation in the three scenarios during explicit forecasting period from 2017 to 2019.

Table 19.1: APV Valuation – Base Case

APV Valuation - Base Case				
€ mln		2017F	2018F	2019F
Free Cash Flow		111.6	82.7	76.3
<i>Time Period</i>		1	2	3
Ku	13.4%			
Discount Factor		0.88	0.78	0.69
Present Value of FCF		98.4	64.4	52.3
Unlevered Value (2017-2019)	215.1			
Interest Expenses		10.5	8.6	8.6
Tax Shield (@ 30%)		3.2	2.6	2.6
PV of Tax Shield		2.8	2.0	1.8
Tax Shield Value (2017-2019)	6.6			
Business Enterprise Value	221.7			

Source: Personal Elaboration

Table 19.2: APV Valuation – Best Case

APV Valuation - Best Case				
€ mln		2017F	2018F	2019F
Free Cash Flow		114.9	86.6	81.2
<i>Time Period</i>		1	2	3
Ku	13.4%			
Discount Factor		0.88	0.78	0.69
Present Value of FCF		101.4	67.3	55.7
Unlevered Value (2017-2019)	224.5			
Interest Expenses		10.5	8.5	8.5
Tax Shield (@ 30%)		3.1	2.6	2.5
PV of Tax Shield		2.8	2.0	1.7
Tax Shield Value (2017-2019)	6.5			
Business Enterprise Value	231.0			

Source: Personal Elaboration

Table 19.3: APV Valuation – Worst Case

APV Valuation - Worst Case			
€ mln	2017F	2018F	2019F
Free Cash Flow	110.7	81.8	75.2
<i>Time Period</i>	1	2	3
Ku	13.4%		
Discount Factor	0.88	0.78	0.69
Present Value of FCF	97.6	63.7	51.6
Unlevered Value (2017-2019)	212.8		
Interest Expenses	10.9	9.3	9.7
Tax Shield (@ 30%)	3.3	2.8	2.9
PV of Tax Shield	2.9	2.2	2.0
Tax Shield Value (2017-2019)	7.1		
Business Enterprise Value	219.9		

Source: Personal Elaboratio

5.4.3 Continuing Value and WACC calculation

Continuing value calculation requires the application of the traditional applications of the Discounted Cash Flow model, assuming that Hotel Leela will reach a steady state and WACC remains stable because the firm aims to reach a target capital structure after the forecasting period. The continuing value (or terminal value) is computed using the Gordon formula as follow:

$$TV = \frac{FCF_t}{WACC - g}$$

where FCF_t are the free cash flow generated by the firm assuming perpetuity growth and the weighted average cost of capital is computed according to the traditional formulas as follow:

$$WACC = k_e * \frac{E}{D + E} + K_d(1 - t) * \frac{D}{D + E}$$

The underlying assumption of the valuation model is that the company will be able to get financial healthy after the explicit forecasting period (2017 - 2019): in order to makes this possible the company has to align its financial leverage to the average one of its main competitors in the industry. In Table 20 a snapshot is provided. The comparable companies have been selected accordingly to the following criteria: i) the have to be listed on Indian Stock Exchange, ii) they have to generate the majority of their revenues from the Indian market, iii) they have to be independent Indian hotels' chain and not Indian subsidiaries of international industry players, iv) they have to compete in the same premium segment being direct competitors of the Hotel Leela and they have to operate hotels in the same Hotel Leela's locations.

Table 20: Comparable financial leverage analysis

Comparable pricing analysis									
Data in € m In									
#	Company	TICKER	Country	Total market	NFP Country	EV	Sales 2016	Beta unlevered	D / (D+E)
1	EIH LTD	EIH IN Equity	IN	1,083.9	55.3	1,139.2	247.5	0.590	3.8%
2	INDIAN HOTELS CO LTD	IH IN Equity	IN	1,808.7	742.2	2,550.9	635.8	0.617	25.6%
3	TAJ GVK HOTELS & RESORTS LTD	TAJG IN Equity	IN	147.3	53.8	201.2	38.1	1.003	26.8%
4	KAMAT HOTELS (INDIA)	KHI IN Equity	IN	15.0	-	15.0	23.9	1.012	96.5%
5	HOTEL LEELA VENTURE LTD	LELA IN Equity	IN	131.7	607.6	739.2	91.5	0.222	82.2%
Average								0.689	47.0%
Average without outliers								0.737	44.9%
Median								0.617	26.8%
Min								0.222	3.8%
Max								1.012	96.5%

Source: Market data provider

Analyzing the results provided in Table 20 clearly emerge that Hotel Leela is highly leveraged if compared with the majority of its competitors: the comparable average without outliers is 44.9%. According to A. Damodaran database the industry average financial leverage (D/D+E) for the Indian Hotel Industry is 18.90%. However, as stated before, this value is positively influenced by international chains that can deeply invest in Indian subsidiaries or that run their operations not only in the Indian market. Moreover, the industry financial leverage proposed by A. Damodaran will be never achieved by the Hotel Leela in a 3 years horizon so it would not be correct to adopt that value in a perpetuity scenario.

Since the company is expected to balance its financial leverage after the explicit forecasting period, the assumptions that will be adopted in computing the cost of capital are a $\frac{D}{D+E} = 44.9\%$ and, as a consequence a $\frac{E}{D+E} = 55.1\%$

Furthermore, due to the distressed situation in which the Hotel Leela is operating, debt holders could not accept to earn a basic risk-free rate so, the cost of debt (k_d) requires to be adjusted by a premium (default spread) in case of the firm is no longer able to fulfill its debt repayment.

According to Moody's rating and Damodaran projections too, the average rating class of a medium distressed companies (B class debt) correspond to an adjusted default spread of 6.5%. The last input needed in order to estimate the WACC is the cost of equity that according to the CAPM model can be estimated as follows:

$$k_e = R_f + R_p + (\beta_L * R_m)$$

In Table 21 a snapshot of all the items taken into account in order to compute WACC calculations.

Table 21: Weighted Average Cost of Capital

Weighted Average Cost of Capital		
Ke parameter		
Risk free	2.32%	U.S. Govt Bond 10Y Average at 6 months
Beta Unlevered	0.74	Average beta w without outliers from comparable companies analysis
D/E	0.81	
Beta Levered	1.16	
Market risk premium	5.7%	
Country risk premium	3.1%	Specific Indian risk premium (Source: Damodaran, January 2017)
Size premium	3.7%	Source: Ibbotson 2015
Cost of Capital (Ke)	15.8%	
Kd parameter		
Cost of debt	0.7%	Interest Rate Sw ap 10Y Average at 6 months
Default Spread	6.5%	Source: Damodaran B Class Debt
Cost of Debt Kd before taxes	7.2%	
Tax rate	30.0%	KPMG website
Kd * (1 - Tax rate)	(2.2%)	
Cost of Debt Kd net of taxes	5.0%	
Financial Structure		
% Ke (E/D+E)	55%	
Target % Kd (D/D+E)	45%	Average w without outliers from comparable companies
WACC	11.0%	

Source: Personal Elaboration, Damodaran database, Market data provider

Given FCF in the first year following explicit forecasting period, the growth rate g conservatively estimated as 0.0% at the light of poor growth in stock prices over a 24 months period: both the average growth and CAGR have been lower than 1.0%. Other approaches in order to estimate a realistic and sustainable growth rate are based on ROE and EPS (earnings per share). Due to the negative performance of the company this two methods provides non meaningful results that can reflect properly a g -rate. Another reliable way to estimate the growth in perpetuity is to adopt the inflation rate of the reference market however, as shown in the following Table 22 those related to the Indian market cannot be applied when valuing a distressed company, accordingly to A. Damodaran that suggests a conservative 0.0%.

Table 22: Indian historical and prospective inflation rate (%)

India Inflation Rate - Historical and Prospectical											
Code	Geography	2000	2005	2010	2015	2016	2017	2018	2019	2020	2021
IN	India	3.64	4.64	8.35	5.69	3.48	4.50	4.60	4.60	4.50	4.40

Source: The Economic Intelligence Unit

Once estimated the g -rate and the WACC, the appraiser can estimate the terminal value applying the Gordon formula reported in the previous paragraph.

In Table 23, a synthetic view of the Terminal Value related to the three scenarios taken into account in this valuation.

Table 23: Terminal value calculation for all scenarios

Terminal Value calculation			
€ mln	TV - Base Case	TV - Best Case	TV - Worst Case
Revenues	70.8	78.1	69.7
First Margin	55.4	62.2	54.2
Ebitda	22.1	29.7	20.5
% on revenues	31.3%	38.0%	29.4%
Free Cash Flow	76.3	81.2	75.2
Time period	3	3	3
WACC	11.0%		
G rate	0.0%		
Terminal Value	696	741	686
Discount factor	0.72	0.72	0.72
Present Value of TV	502.4	535.0	495.1

Source: Personal Elaboration

At this stage of the valuation process, the appraiser is able to estimate the Enterprise Value (EV): it is given by the sum of the value obtained through the performance of the APV and the terminal value that is related to continuing operations into future.

The overall EV is summarized in Table 24 and it is adjusted for the related probability that the specific scenario occurs.

Table 24: Enterprise Value scenario comparison

Enterprise Value comparison			
€ mln	TV - Base Case	TV - Best Case	TV - Worst Case
Unlevered Value (2017-2019)	215.1	224.5	212.8
Tax Shield Value (2017-2019)	6.6	6.5	7.1
Business Enterprise Value	221.7	231.0	219.9
Terminal Value	502.4	535.0	495.1
Enterprise Value	724.0	766.0	715.1
Scenario probability	50%	25%	25%
Weighted EV	362.0	191.5	178.8
Expected EV	732.3		

Source: Personal Elaboration

Once estimated the enterprise value, a last step is needed in order to determine the Hotel Leela Equity Value (EqV) that can be defined as the value of the firm available to shareholders and it can be computed applying the following formula.

$$Equity\ Value = EV + Surplus\ Assets\ (Liabilities) - NFP$$

where the Net Financial Position is computed as:

$$NFP = Cash (-) + Financial\ Debt (+) + Minorities\ Interests (+)$$

In this approach, the appraiser is taking into account the face value of debt and not the market one.

In Table 25, a snapshot of the Equity Value of the Hotel Leela weighted according to the three scenarios considered till now in the valuation process.

Table 25: Equity Value scenario comparison

Equity Value comparison			
€ mln	TV - Base Case	TV - Best Case	TV - Worst Case
Enterprise Value	724.0	766.0	715.1
Cash and Cash Equivalents (2016)	(6.3)	(6.3)	(6.3)
Financial borrowings (2016)	606.1	606.1	606.1
Minorities Interests (2016)	-	-	-
NFP/(Cash)	599.8	599.8	599.8
Equity Value	124.2	166.2	115.3
<i>Scenario probability</i>	50%	25%	25%
Weighted Equity Value	62.1	41.5	28.8
Expected Equity Value	132.5		

Source: Personal Elaboration

However, in case of distressed companies, the switch from enterprise value to equity value is not straightforward because the estimation of market value of debt is quite critical for firms in trouble: the appraiser has to properly adjust the estimation of the value of debt.

According to F. Buttignon (*Distressed Firm Valuation, 2014*), the face value of debt and consequently, distressed firms' net financial position (NFP) cannot be used as a proxy of the debt value because of the intrinsic risk of default. The most widely recognized approaches in order to avoid this bias are:

- DCF model, which estimates the value of debt discounting cash flows to debt (FCD) expected by the plan at a market cost of debt;
- A model based on Black, Scholes and Merton (BSM) theory that considers risky debt as a composition of risk-free debt and a put option granted to shareholders by creditors to yield assets upon maturity to the debt's nominal value.

The starting point of DCF method is the determination of free cash flows to debt (FCD), as estimated in the business plan. Debt value is then computed by discounting FCD at a market rate of return. In Table 26 are presented the main steps in order to determine the value of debt applying a DCF approach.

Table 26.1: Value of Debt, DCF method, Base Case

Debt Value (DCF Model) - Base Case				
€ mln	2016A	2017F	2018F	2019F
EBIT	(10.8)	(1.6)	3.7	11.4
Interest Expenses (revised at mkt Kd)		81.9	70.1	55.9
EBIT/Interest Expenses		(0.02)	0.05	0.20
<i>Rating Class</i>		<i>D</i>	<i>D</i>	<i>C</i>
Default Spread %		14.0%	14.0%	12.7%
Risk Free Rate		0.7%	0.9%	1.1%
Market Cost of Debt		14.7%	14.9%	13.8%
Nominal value of debt	606.1	508.1	433.1	376.8
Interest Expenses (from the Plan)		10.5	8.6	8.6
Δ Debt		98.0	75.0	56.3
Free Cash Flow to Debt (FCD)		108.5	83.6	64.9
<i>Time Period</i>		<i>1</i>	<i>2</i>	<i>3</i>
<i>Disocunt factor</i>		<i>0.87</i>	<i>0.76</i>	<i>0.68</i>
<i>PV of FCD</i>		<i>94.6</i>	<i>63.3</i>	<i>44.1</i>
Total PV of FCD	202.0			
Debt Value at the end of projection period	255.7			
Market Value of Debt	457.6			
Nominal value of debt	606.1			
Shereholders' Value of reorganizaion plan	148.4			
Disocunt on nominal debt value	24.5%			

Source: Personal Elaboration

Table 26.2: Value of Debt, DCF method, Best and Worst Cases

Debt Value (DCF Model) - Best Case					Debt Value (DCF Model) - Worst Case				
€ mln	2016A	2017F	2018F	2019F	€ mln	2016A	2017F	2018F	2019F
EBIT	(10.8)	3.6	9.4	18.8	EBIT	(10.8)	(2.9)	2.4	9.7
Interest Expenses (revised at mkt Kd)		81.9	70.1	55.9	Interest Expenses (revised at mkt Kd)		81.9	70.1	55.9
EBIT/Interest Expenses		0.04	0.13	0.34	EBIT/Interest Expenses		(0.04)	0.03	0.17
<i>Rating Class</i>		<i>D</i>	<i>D</i>	<i>C</i>	<i>Rating Class</i>		<i>D</i>	<i>D</i>	<i>C</i>
Default Spread %		14.0%	14.0%	12.7%	Default Spread %		14.0%	14.0%	12.7%
Risk Free Rate		0.7%	0.9%	1.1%	Risk Free Rate		0.7%	0.9%	1.1%
Market Cost of Debt		14.7%	14.9%	13.8%	Market Cost of Debt		14.7%	14.9%	13.8%
Nominal value of debt	606.1	508.1	433.1	376.8	Nominal value of debt	606.1	508.1	433.1	376.8
Interest Expenses (from the Plan)		10.9	9.3	9.7	Interest Expenses (from the Plan)		10.5	8.5	8.5
Δ Debt		98.0	75.0	56.3	Δ Debt		98.0	75.0	56.3
Free Cash Flow to Debt (FCD)		108.9	84.3	66.0	Free Cash Flow to Debt (FCD)		108.5	83.5	64.8
<i>Time Period</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>Time Period</i>		<i>1</i>	<i>2</i>	<i>3</i>
<i>Disocunt factor</i>		<i>0.87</i>	<i>0.76</i>	<i>0.68</i>	<i>Disocunt factor</i>		<i>0.87</i>	<i>0.76</i>	<i>0.68</i>
<i>PV of FCD</i>		<i>95.0</i>	<i>63.9</i>	<i>44.8</i>	<i>PV of FCD</i>		<i>94.6</i>	<i>63.2</i>	<i>44.0</i>
Total PV of FCD	203.6				Total PV of FCD	201.8			
Debt Value at the end of projection period	255.7				Debt Value at the end of projection period	255.7			
Market Value of Debt	459.3				Market Value of Debt	457.4			
Nominal value of debt	606.1				Nominal value of debt	606.1			
Shereholders' Value of reorganizaion plan	146.8				Shereholders' Value of reorganizaion plan	148.6			
Disocunt on nominal debt value	24.2%				Disocunt on nominal debt value	24.5%			

Source: Personal Elaboration

The FCD has to be discounted at the debt's fair market cost (rate of return), which could not match to the cost agreed with creditors or those agreed during the restructuring plan. In this specific scenario, because of the default spread data is related to mature markets, the Risk free rate has been computed in line with mature markets one. Indeed, it is typical of distressed companies to negotiate with creditors more favorable conditions in order to have a chance of reestablish the normal going concern condition. However, this gives rise the problem to quantify the market cost of debt.

According to F. Buttignon and represented in Table 26, the appraiser can proceed in determine the market value of debt according to the following steps:

- i. Start from the operating income (EBIT) forecast in the restructuring plan;
- ii. Estimate the financial expenses using market cost of debt;
- iii. Calculate the debt coverage ratio EBIT/Interest expenses;
- iv. Forecast the debt rating class, based on the previously calculated coverage ratio, and the corresponding credit default spread as illustrated in Table 27;

Table 27: Interest Coverage Ratio and related Ratings

Interest Coverage Ratios and Ratings		
Interest Coverage Ratio	Rating	Spread
> 8.5	AAA	0.75%
6.5 - 8.5	AA	1.00%
5.5- 6.5	A+	1.50%
4.25- 5.5	A	1.80%
3.0 - 4.25	A-	2.00%
2.5 - 3.0	BBB	2.25%
2.0 - 2.5	BB	3.50%
1.75 - 2.0	B+	4.75%
1.5 - 1.75	B	6.50%
1.25 - 1.5	B-	8.00%
0.8 - 1.25	CCC	10.00%
0.65 - 0.8	CC	11.50%
0.2 - 0.65	C	12.70%
<0.2	D	14.00%

Source: A. Damodaran website

- v. Estimate the market cost of debt as the sum of risk-free rate plus the credit default spread.
- vi. Compute financial expenses, multiplying the debt being restructured by the market cost of debt.

Given the estimate of the market cost of debt, we can calculate the value of debt, discontinuing at this rate the FCD forecasted in the plan.

Debt value at the end of forecasting period is assumed equal to nominal value. This is true if the company recovers its normal operating conditions at the end of the reorganization plan, including the capacity to remunerate creditors at a fair market return.

The difference between the value of the debt estimated with DCF approach and the corresponding face value at the valuation date is the sacrifice asked to creditors (financial institutions and banks) in order to facilitate business continuity and, at the same time, the shareholder value of the debt.

An alternative to the DCF approach can be seen in the application of a complementary method based on the option pricing model.

In the BSM model, debt is represented as a combination of risk-free debt (remunerated at the risk free rate) and a put option granted to shareholders by creditors to divest assets (Enterprise Value) at the nominal value of debt. This put option exploits the situation in which, at the debt's maturity, if EV is lower than face value of debt (D), shareholders can leave the company to creditors, who will suffer a loss equal to the difference between EV and Debt.

In distressed companies, the conditions granted to shareholders by creditors, as part of a restructuring plan, can give rise to a put option value, which is negative for creditors but positive for shareholders.

In Table 28 are represented the steps performed to determine the Debt Value applying a Black and Scholes model.

Table 28: Risk Free Debt and Duration, Value of Debt (BSM Model)

Risk Free Debt and Duration					
€ mln	2016A	2017F	2018F	2019F	TV
FCD		108.5	83.5	64.8	441.5
Risk Free Rate		0.7%	0.9%	1.1%	1.1%
Time period		1	2	3	4
Discount factor		0.99	0.98	0.97	0.96
<i>PV of FCD</i>		107.7	82.0	62.7	422.6
Risk free debt value	675.1				
<i>PV of FCD * Time Period</i>		107.7	164.0	188.0	1,690.6
Σ PV of FCD * Time Period	2,150.4				
Duration	3.2				

Debt Value BSM Model - Base Case	
€ mln	2016A
Enterprise Value (DCF)	733.2
Frisk Free Debt Value	675.1
Debt duration	3.2
Risk Free Rate	0.7%
Debt Nominal Value at maturity	690.3
EV Volatility	24%
d1	0.41
d2	(0.02)
N(d1)	0.66
N(d2)	0.49
Equity Value (Call Value)	150.8
Debt Value	582.4
Put Value of Debt	92.6

DCF - Base Case				
€ '000	2017F	2018F	2019F	TV
Free Cash Flow	111.6	82.7	76.3	76.3
<i>Time period</i>	1	2	3	3
WACC	11.0%			
G rate	0.0%			
Discount factor	0.90	0.81	0.73	0.73
Present Value of FCF	100.6	67.2	55.8	
PV of FCF 2017-2019	223.6			
Terminal Value	696.2			
Discount factor	0.7			
Present Value of TV	509.6			
Enterprise Value	733.2			
NFP/(Cassa)	606.1			
Equity value	127.2			

Debt Value BSM Model - Best Case	
€ mln	2016A
Equity Value (Call Value)	180.1
Frisk Free Debt Value	596.1
Put Value of Debt	79.0

Debt Value BSM Model - Worst Case	
€ mln	2016A
Equity Value (Call Value)	144.5
Frisk Free Debt Value	579.1
Put Value of Debt	96.0

Source: Personal Elaboration

The Enterprise Value, estimated with a DCF model is the underlying asset of the put option. Under the BSM model, the debt is seen as a zero-coupon bond that can be refunded at maturity date. Moreover, the appraiser has to estimate a volatility measure to apply at the BSM model: this is a critical variable because of the complexity behind its estimation. In this scenario it has been considered equal to those forecasted by A. Damodaran for the Indian overall Hotel Industry in 2017.

The economic value of debt obtained with BSM model can be compared to that estimated with DCF model as presented in Table 28 (green arrow). There is relevant difference between the two prospective due to the difficulty of the company to remunerates creditors at fair market condition and the sacrifice that is asked to them in order to re-establish going concern path is relevant. In order to approximate the market value of debt some adjustments and hypothesis can be done: in this specific case, due to the relevant different between the fair and the market value of debt and to the difficulties in assessing a market cost of debt for the Indian market, the overall market cost of debt has been estimated as the weighted average of the results obtained from the DCF and the BSM methods with the respective weights: 20% and 80%.

Once estimated the Enterprise Value and the Debt Value, the appraiser can estimate the Equity Value computed as the difference between the EV and D.

Operating assumptions for each scenario are the same of those applied previously (Table 16) and a synthetic snapshot of the Companies value in provided in the following Table 29.

Table 29: Scenario Analysis Summary

Scenario Analysis Summary				Weighted Avg. Scenario
€ mln	Base Case	Best Case	Worst Case	
Enterprise Value	733.2	776.1	723.6	741.5
Cash and Cash Equivalents (2016)	(6.3)	(6.3)	(6.3)	(6.3)
Debt Value (weighted avg. DCF@20% - BSM@80%)	563.7	635.2	560.8	580.9
Minorities Interests (2016)	-	-	-	-
NFP/(Cash)	557.5	628.9	554.6	
Equity Value	175.8	147.2	169.0	
Scenario probability	50%	25%	25%	
Weighted Equity Value	87.9	36.8	42.2	
Expected Equity Value	166.9			166.9

Source: Personal Elaboration

Through the analysis performed until now, the expected value of equity appears in line with the actual market capitalization of Hotel Leela Venture Ltd. This can be use as a support and demonstration that performing a scenario analysis is a good tool for assessing the uncertainty underlying future operations of a firm in trouble.

5.5. Option Pricing valuation approach and the estimation of the liquidation value

Another feasible option to value declining and distressed firms in addition to APV/DCF valuation is the *Option Pricing Valuation (OPV)*. OPV allows the appraiser to estimate feasibility of the restructuring process under general economic conditions. This methodology let estimate an uncertainty value related to future opportunities, so the equity value can be positive even though enterprise value is lower than face value of debt. Moreover, OPV method allows the calculation of the probability of default of the company, which will be used, in the following paragraph to apply the DCF method adjusted for the probability of default.

Inputs required for the implementation of OPV method are:

- *Enterprise value of the firm (S)*: it is assumed to be equal to the sum of the Hotel Leela market capitalization and market value of debt at the end of the FY 2016. The enterprise value at March 31, 2016 was approximately €712.5 million (market cap equal to €106.5 mln)
- *Enterprise value volatility (σ_A)*: as already illustrated in the previous paragraph, the EV volatility has been estimated equal to 24.02% in line with A. Damodaran calculation for the hotel industry.
- *Time horizon (T)*: it is equal to the duration of the firm's zero coupon debt, which was previously estimated equal to 3.2 years.
- *Risk free rate (Rf)*: risk free rate was fixed equal to 0.7% in line with the return of the Interest Rate Swap at 10 years. The country risk premium is not included because it is implicitly accounted by EV volatility.
- *Strike price (K)*: strike price of the option was assumed equal to face value of debt at 31 March 2016.

By applying the BSM formula the appraiser can determine Hotel Leela Venture's EV by imposing that equity value (the call option) must be equal to the sum of the firm's market capitalization of the Hotel Leela. At the same time, by subtracting equity value to the enterprise value, the appraiser can also obtain market value of debt.

In the following Table 30 a numerical analysis of the OPV application.

Table 30: OPV Model

Option Pricing Valuation	
€ mln	2016A
Enterprise Value (S)	712.5
EV Volatility	24%
Risk Free Rate	0.7%
Time horizon	3.2
Strike Price	606.1
d1	0.6
d2	0.2
N(d1)	0.7
N(d2)	0.6
Equity Value (Call Value)	180.5
Debt Value	532.1
Put Value of Debt	74.0
Risk Free probability of default	41%
E/EV	25%
D/EV	75%

Source: Personal Elaboration

OPV method allows the appraiser to estimate the probability of default from market data. This is a relevant information when firm's value is estimated by using a model that explicitly considers the effects and consequences of bankruptcy, as the DCF method adjusted for probability of default.

Under this approach, the overall firm's enterprise value is equal to the weighted average between the going concern value and the estimated liquidation value considering that weights are determined on the basis of probability of default. The model can be summarized as follow:

$$EV = \text{Going concern value} * (1 - \pi_{distress}) + \text{distress sale value} * \pi_{distress}$$

The going concern value assumes that the company restructuring process and turnaround strategy will be successful and that the firm will return to a going concern situation in future. As a going concern value has been assumed the enterprise value deriving from DCF adjusted for the value of debt (€732.3 mln).

Liquidation value (or distress sale value) is estimated on the basis of expected proceeds in an event of a distress sale. However, distress sale proceeds are significantly more depressed than those which can be obtained from an ordinary sale.

The easiest and more reliable way, according to A. Damodaran, in order to estimate the liquidation value is the *earning-power-of-assets approach*.

Under this approach the earning power of the existing assets is estimated considering the average firm's EBIT over the last 3 years, which in this specific scenario is negative due to the relevant distress of the company and equal to € -8.9 mln. Assuming an industry tax rate of 30% in line with those of the Indian country and a cost of capital of 11.0% in line with those presented in previous paragraphs, the distress sale proceeds can be estimated through the following formula:

$$\text{Liquidation Value} = \text{Avg. Historical EBIT} * \frac{1 - \text{tax rate}}{\text{WACC}}$$

In Table 31 is provided the liquidation value computation related to the Hotel Leela: because the company has not been able to generate positive earnings during the period from its own assets the liquidation value correctly represents firm's inability to generate earnings.

Moreover, the liquidation value computed with the previous formula has to be adjusted for company cash and cash equivalents balance.

Table 31: Liquidation Value "earning-power-of-assets approach"

Liquidation Value "earning-power-of-assets approach"	
€ mln	2016A
Avg. EBIT (2014 -2016)	(8.9)
1- Tax Rate (@30%)	70%
WACC	11.0%
Liquidation Value	(57.1)
Cash and Cash Equivalents	6.3
Liquidation Value	(50.8)

Source: Personal Elaboration

The probability of default at the end of the fiscal year ending on 31 March, 2016, determined by applying OPV approach to market enterprise value, is equal to 41.5% as represented in Table 30.

Finally, the Hotel Leela valuation obtained by using DCF method adjusted for probability of default can be performed as represented in Table 32:

Table 32: Enterprise Value - liquidation value approach

Enterprise Value - Liquidation Value approach	
€ mln	2016A
Going Concern Value	741.5
Liquidation Value	(50.8)
π of default	41.5%
(1 - π of default)	58.5%
Enterprise Value	413.0
Market Value of Debt (OPV)	532.1
Equity Value	(119.0)

Source: Personal Elaboration

Under this approach a new relevant prospective has to be considered: in case of an imminent liquidation of the company the liquidation value of the assets is lower than those of the outstanding debt of the company: so, in this case the equity value is consistently negative. This effect is generated by the inability of the company to generate for a 3-years period of time positive earnings that, in case of immediate liquidation, deeply impact on the overall Enterprise Value.

5.6 Relative Valuation Approach: comparable M&A transaction.

The Indian hotel industry is going to be shaped by a wave of mergers and acquisitions and some relevant deals occurred in previous years: despite of the average industry performance worldwide hotel chains (and India companies as well), are interested in enter, or expand operations, in the country with a positive impact on the deal activity of the market.

Because of the distress situation that the Hotel Leela is facing, applying a traditional relative valuation that relies on EV/EBITDA or EV/Sales could provide misleading results due to the benchmarking of a distress firm with one that is not facing same troubles.

Due to the market trend in premium hotel segment to sell or acquire a single hotel property too in order to add a new distinctive element to the current portfolio, the determination of the specific amount of Sales or Earnings generated by a certain property was no longer assessable.

Moreover, trying to create a cluster of distressed companies as suggested by A. Damodaran was not a suitable solution due to negative earnings of both Hotel Leela and main comparable.

The hotel industry is strongly reliant of the value of their assets (mainly properties and real estates) so, the application of a relative valuation that takes into account the specificity of the assets that is going to be traded could be suitable solution.

Revenues are mainly driven by the number of rooms the hotel has so, a logic ratio in order to asses a valuation benchmark can be *EV/number of rooms* of the property or group of properties traded.

In Table 33 is provided an analysis of the comparable transactions occurred in the last years: only luxury and premium hotels has been taken into account in order to provide a reliable benchmark.

Table 33: Comparable Transaction in the Indian Market

Comparable Transactions Analysis								
Nr.	Date	Target	Bidder	Bidder Country	Deal Value EUR(m)	EV EUR(m)	# Rooms	EV/Rooms
1	Oct-16	Mac Charles (India) Limited (98.11% Stake)	Embassy Property Developments Limited	India	118	120.1	197	0.61x
2	Feb-16	Hyatt Regency Pune	SAMHI Hotels Private Limited	India	46	46.3	222	0.21x
3	Sep-15	Annakoot Properties Private Limited	MRG Hospitality and Infrastructure Pvt Ltd	India	14	13.6	94	0.14x
4	Dec-15	The Leela Goa	Ceres Hotels Private Limited	USA	97	96.9	206	0.47x
5	Mar-15	Park Hyatt Goa Resort And Spa	ITC Limited	India	73	73.1	248	0.29x
6	Feb-14	Regenta One, Hyderabad	SAMHI Hotels Private Limited	India	21	21.2	158	0.13x
7	May-12	Royal Orchid Ahmedabad Private Limited	SAMHI Hotels Private Limited	Japan	10	9.9	104	0.09x
8	Aug-10	ElH Limited (14.12% Stake)	Reliance Industries Limited	India	172	1,447.3	3,300.0	0.44x
9	Jul-05	The Leela Kovalam Beach	Hotel Leelaventure Limited	India	21	21.5	190	0.11x
Average					63.6	205.5	524.3	0.3x
Average without outliers					55.7	56.1	189.3	0.3x
Median					46.0	46.3	197.0	0.2x
Min					10.0	9.9	94.0	0.1x
Max					172.0	1,447.3	3,300.0	0.6x

Source: Market Data Provider

Applying the average EV/Room ratio (0.28x) resulting from the Pricing M&A, the Hotel Leela Venture still having an EV in line with those estimated with the more traditional and conservative

approaches.

From this can be derived that the company's value still driven and supported by its properties.

In Table 34, the Hotel Leela EV computed applying the EV/Room ratio.

Table 34: Relative Valuation application

M&A Transaction multiple application	
<i>€ mln</i>	2016A
Average EV/Rooms	0.28x
Number of Rooms	2,688
Enterprise Value	749.3

Source: Personal Elaboration

Chapter 6 – Conclusions

The goal of this dissertation has been those of identifying the limitations of traditional valuation techniques if applied to declining and distressed companies.

After an analysis and definition of the corporate crisis topic in Chapter 1, this thesis presents an overlook related to the main valuation techniques and to the limitations that the appraiser can face when valuing distressed companies with traditional methods. This extra level of complexity is caused by the fact that the economic and financial conditions that firms in decline or distress have to deal with cannot be fully captured by traditional valuation methods.

After analyzing corporate crisis topic and presenting a series of possible approaches that can be applied for the valuation of firms in trouble, the focus has been shifted to a concrete application: the case of the Hotel Leela Venture Ltd.

The use of several valuation methods allows to overcome the limitation that characterized each single method and determine a range of values for the enterprise value, equity value and the net financial position of the company.

A summary of the valuation results obtained with the application of the several methods is presented in the following Table 35.

Table 35: Hotel Leela Venture Ltd. valuation summary

Valuation Summary			
€ mln	Enterprise Value	Equity Value	NFP
Scenario Analysis	732.3	132.5	599.8
DCF adj. For Debt Value	741.5	166.9	574.6
OPV Model	706.3	180.5	525.8
Relative Valuation	749.3		
Average	732.3	160.0	566.7
Liquidation Value	413.0	(119.0)	532.1

Source: Personal Elaboration

To conclude, the total enterprise value of the Hotel Leela Venture Ltd. at the end of the fiscal year 2016, is approximately € 732.3 mln, considering a going concern prospective. The net financial position can be estimated equal to € 566.7 mln and composed for € 573.0 mln by financial debts (the majority long terms one) and for only € 6.3 mln by cash.

At the light of the analysis presented above, the Hotel Leela Venture intrinsic value (Equity Value) in a going concern prospective is around € 160.0 mln.

Making a comparison between the results obtained through this valuation process and the share prices of the company on the 11 June, 2017, the result, synthetize in Table 36, suggests that the actual market price of the company mostly represents all the uncertainties and risks analyzed in this dissertation.

Table 36: Share price comparison

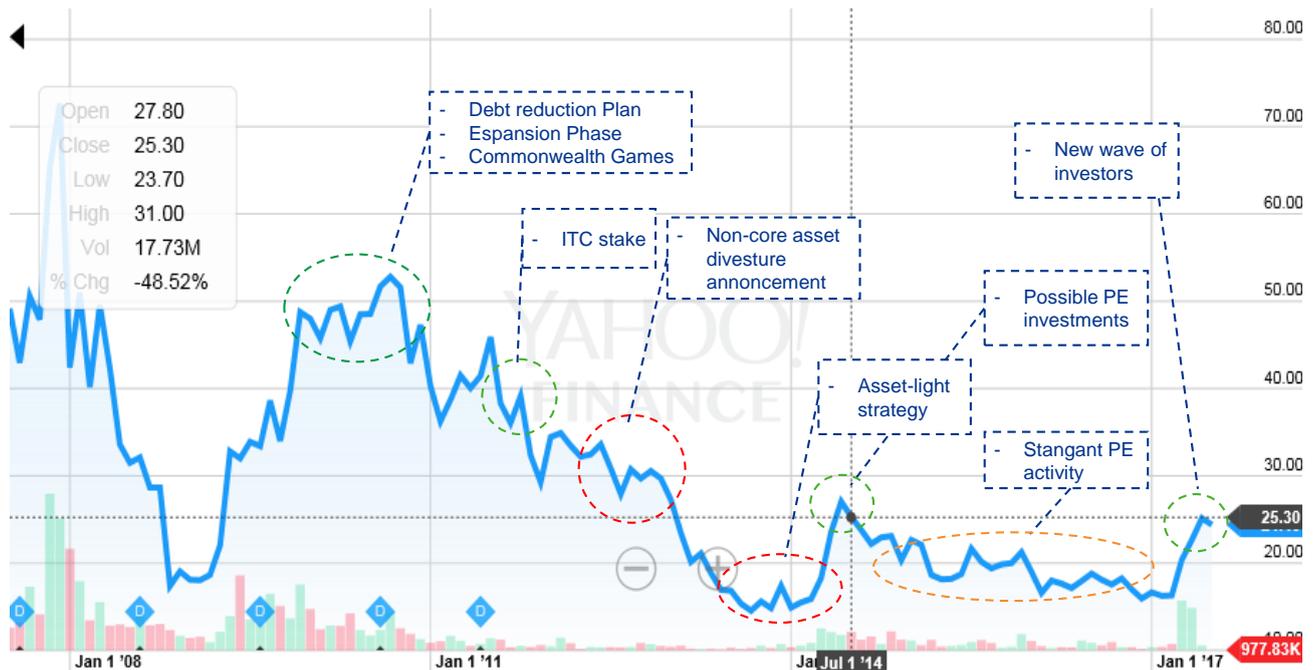
Valuation benchmark with share prices				
	n. of shares (mIn)	Price (INR)	Price (EUR)	Equity Value/n. shares
Scenario Analysis	466.6			0.28
DCF adj. For Debt Value	466.6			0.36
OPV Model	466.6			0.39
Market	466.6	26.8 INR	0.38	0.34

Source: Personal Elaboration, Yahoo! Finance

The key findings of this dissertation can be analyzed and any possible distortion or adjustment applied *ad hoc* in order to better represent the object of analysis identified. In particular, what is relevant are the assumptions done in order to try to represent a coherent 3-years business plan for the company and the relevant impact that they have on the whole valuation process if certain factors are not taken into account. The revenues split in two different categories is relevant in order to properly represent the future company's strategy. This has been done relying only on certain future development project: maintain a critic and conservative approach it is extremely important when valuing firms in crisis. What could be interesting but unfortunately impossible to do with datas available at the moment is a two level analysis of the enterprise value of the company generated by the only hotel management activities and of those generated owning the properties and running them with all the costs associated to this specific business model.

In order to make some critical reflections about the factors that can affect the overall value of the Hotel Leela Venture Ltd. a final analysis of the historical shares prices is provided with the aim to point out some common trends that have historically positively and negatively affected the share price. In Figure 24 a global overview of the relevant events that have significantly affected the stock values.

Figure 24: Stock Prices Analysis



Sources: Yahoo! Finance, Personal Elaboration

In 2008, as carefully explained by the management of the company, the stock price has been negatively affected by the global economic and financial crisis. Nevertheless, the Hotel Leela is able to reestablish its trading value equal to those pre-crisis due to the huge investment plan focused on the opening of five new properties by the 2013. At the end of the fiscal year the company registered its new 52-weeks highs of INR 48.50 thanks to the massive enthusiasm of investors driven by the new opening of the Leela Palace in Delhi. The announcement of the expansion plan came at an opportune time and the company was able to benefit from the impending Commonwealth Games, recovering in foreign tourist from EU and US: in that year the maximum occupancy rate of 75% was reached, combined with the highest average room rates prices of approx. € 250.00.

This positive combination of events combined with the management willing to start a sustainable and effective recovery plan to clean up debt from balance sheet is supported by the enthusiasm of the investors.

The company, at the beginning of January 2010, intends to enhance the expansion plan and the debt-burden process through fund raising, a mixture of equity shares via QIPs (Qualified Institutional Placement – Indian Investors) and FCCBs (Foreign Currency Convertible Bonds). At that time, the Hotel Leela seems to be able to manage its debt, buying back the second round of FCCBs erasing 59% of its current US convertible bonds and the 24% of the EU ones with maturity in 2012.

So, from this brief analysis can be point out that the ambitious investments that the company intends to face have positively affected the share price; investors did not seems worried about the increasing

leverage and the market has some appetite for Hotel Leela stake: in April 2011 ITC Ltd. (an Indian hotel company) has raised its minority holding in the company at 4.32%.

Furthermore, Hotel Leela management is interested in opening new tables of negotiations with global Private Equity firms to raise capital quickly.

At the end of 2012, the slowdown of the market conditions and the failure of the company in finding fresh investors, combined with the unchanged high leverage, induced the company to sell its non-core assets to reduce its debt. This announcement was not appreciated by the market and share value, that was yet declining, reached the 52-week low of INR 27.05.

In the same period, Captain C. P. Krishnan Nair, founder of Hotel Leela stepped down as chairman of the company: this can produce some managerial uncertainties in the market also if the son was appointed as new CEO of the company.

The mission of the new chairperson is to make effective the sale of non-core assets (e.g. Chennai IT Park was sold in February 2013), forging joint ventures with hotel developers in order to increase revenues from managed properties and sell some equity of the current ongoing projects in order to pay off the debt.

At the beginning of 2013, that Hotel Leela takes into account a change in strategy: from the asset-heavy model to an asset-light strategy. This change in root was not appreciated by the market that reacted with a further share price reduction: the prestige and reputation of the company was entirely based on its assets and this drastic and new change, especially for the Indian market was not well seen. Moreover, it was a way to disclose all the difficulties that the company was facing in repaying back its debts.

In November 2013, ICICI Ltd. an Indian Investment Bank, suggested to investors to “sell” Hotel Leela stakes due to the historically minimum trading values.

In February 2014, the Sovereign Fund of Abu Dhabi and Qatar manifested interest in picking up the 74% stake in the Hotel Leela properties in Delhi and Chennai for more than € 280 mln. The company will have retained the 26% stake continuing to manage the property.

Investors concretely appreciated possible entrance of a sovereign fund in the company and a concrete solution to the debt reduction issue: share prices increased from approx. INR 15.00 to approx. INR 27.00.

At this point seems to be clear that any effort associated with a financial leverage reduction is appreciated by the market.

In 2014, some new trends in the Indian hospitality industry are consolidated: hotel companies do not have to necessarily add new owned hotel rooms but their mission is to partner with unorganized players leveraging their brand equity and reputation.

According to S. R. Bickson, managing director of the Taj Group, one of the main industry players, *“we are not that rich to build hotels, but face the challenge of getting a fair share of the market with the plethora of international hotel brands...competing through management contracts”*. The adoption of an asset light strategy that does not involve land acquisition or equity participation is best way to compete.

In the same period, V. Nair, CEO of the Hotel Leela publicly disclosed: *“the land bought during the Commonwealth Games was one of the reason went into debt. We are now looking at joint ventures with sovereign wealth funds and taking back on management contract the hotel we sold to retain the Leela brand.”*

From the second half of 2014 to the end of 2015, the share price ranged from INR 15.00 to INR 22.00. After the initial interest of the Abu Dhabi and Qatar Fund that backed out due to the higher promoter expectations, the Carnival Group offered € 120 mln for the Chennai property, however not enough to meet the company’s request for the property.

In December 2015, the Hotel Leela completed the sale of the property in Goa: the deal value was equal to € 97 mln; the market still neutral; neither positive nor negative reactions: it was the only thing to do.

Actually the stock price is in a growth phase positively driven by a concrete development of the assets-light strategy with some management agreements for new developing properties in the country and a new potential investor for the Chennai property.

What emerges from this analysis is that, in order to achieve a going concern prospective the Hotel Leela has determinately embrace the properties management business model trying to maximize its well-reputed brand. This process will enhance the chances to partnering with an equity investors that could help the company to exit from this hard times and reduce the debt with a massive asset divesture strategy.

Nevertheless, it is important to make some consideration on the actual stock price at what it is currently reflecting. From the half of May, 2017 the Hotel Leela stock value is increasing due market rumors on the potential acquisition of the Chennai property that however has not been confirmed by companies’ management. The Hotel Leela investors have historically been sensible to divesture operations and the stock price has always seen a growth phase due to similar events: this is a concrete demonstration of the importance of the debt reduction and change in strategy. However, current investors should be aware of the complexity of placing such important assets on the market and the several failed tries that the company has attempts since two years in order to place on the market properties. In case of a further failure, investors will probably see a reduction of stock prices in line with what happened in 2014 after the failure of the negotiation with a Private Equity Sovereign

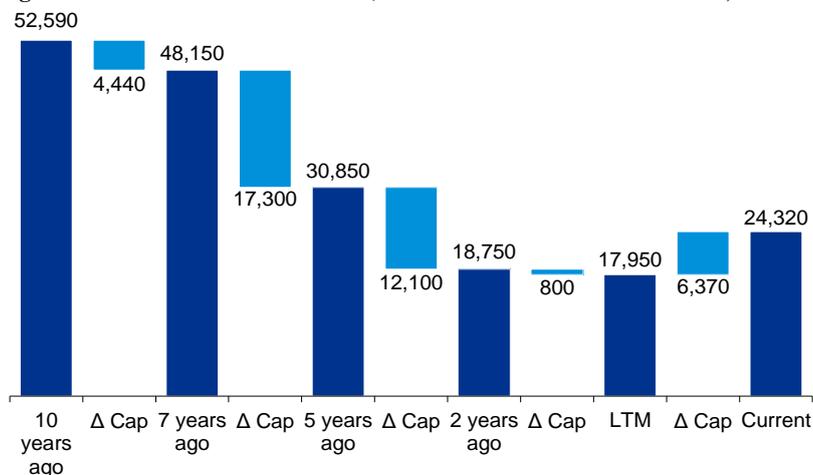
Fund. The market is deeply sensible to new information and this phenomenon could be increased to the poor disclosure provided by the Hotel Leela management during the whole financial year. There is no certificate and shared recovery or business plan for the future and all future strategic actions are appraised from indirect sources and newspaper: this has been the main limitation when valuing the company. Moreover, from 2014, the ICICI Bank Ltd analysts are no longer interested in report company performance and this is a considerable limitation for potential investors: there is a one-year long information asymmetry on company evolution and annual reports publicly posted on the official web site do not in depth explain managements further actions, threats and main causes of distress.

The management main effort is focused on maintain high the brand reputation in order to daily deliver an exclusive and prestigious image: the last “Investors Presentation” officially posted by the company and dated 2016, is wholly oriented on the beauty of currents properties and the enhancement of the new management-contract strategy poorly explaining its sustainability and the fundamentals on which projects are rooted.

This approach do not contribute to stocks value improvement because the huge amount of debt carried in companies financial statements is easily knowable by the market and periodically analyzed on the local financial literature: according to a study conducted by A. Claeys et al. and published on the Harvard Business Review, companies perform worse when the press expose their problems before they do. In this specific case, the Hotel Leela stock price includes relevant information asymmetry and uncertainty about future events.

In order to provide a better understanding of what is buying a potential investors nowadays an overview of the growth rate of the stock price is provided in Figure 25.

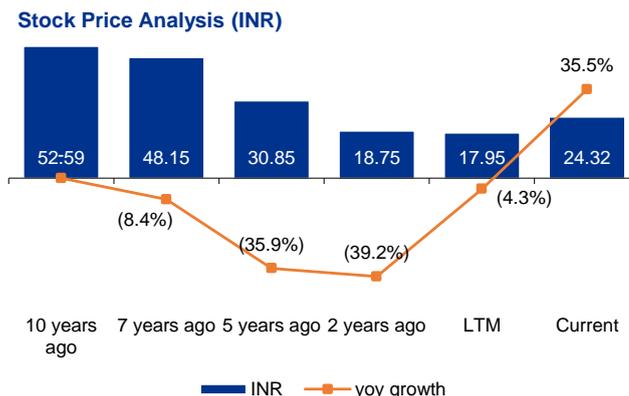
Figure 25.1: Stock Prices Evolution (Value based on an investment of 1,000 INR)



Source: Personal Elaboration, stock prices data from Yahoo! Finance

Figure 25.2: Stock Price Analysis

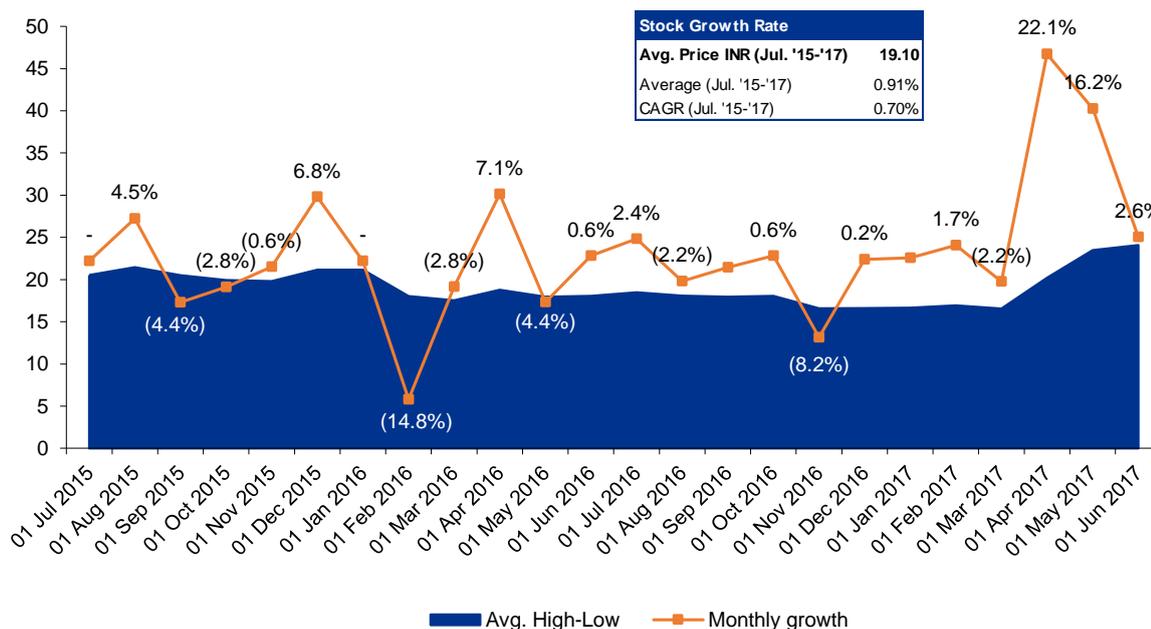
Stock Price Analysis			
	INR	€	yoy growth
10 years ago	52.59	0.74	n.a.
7 years ago	48.15	0.67	(8.4%)
5 years ago	30.85	0.43	(35.9%)
2 years ago	18.75	0.26	(39.2%)
LTM	17.95	0.25	(4.3%)
Current	24.32	0.34	35.5%



Source: Personal Elaboration, stock prices data from Yahoo! Finance

As can be seen from these figures the stock prices path has been mainly declining despite of the last twelve months rise: the CAGR 2007-2017 is equal to -7.4%. However, in order to estimate a reasonable growth rate that could affect Hotel Leela stocks a shorter time analysis could be more significant. In Figure 26 is provided a graphical representation: the time horizon of analysis is 2 years.

Figure 26: Stock Price Analysis



Source: Personal Elaboration, stock prices data from Yahoo! Finance

In the last 24 months, both the Average Growth and CAGR have been lower than 1.0%; stocks have been traded on average at INR 19.10. Investors who are buying stock at the current price are paying a considerable plus generated by a potential bid for the Chennai property and a prospective debt reduction that will be achieved during the current financial year. However, it is difficult to estimate a sustainable g-rate higher than 1% due to the high uncertainty that derives from poor disclosure of the company and the difficulties in increase the revenues generated per room (RevPar) due to the

increasing competitiveness of the market. This is in line with the choice of do not estimate any growth rate in perpetuity for the valuation especially at the light of the distressed condition in which Hotel Leela operates. In order to assess how different g-rate from the estimated one has been performed a sensitivity analysis on both Enterprise Value and Equity Value (DCF estimation) making a relation with different cost of capital too. Results are presented in Table 37.

Table 37: Sensitivity on Enterprise and Equity Value

DCF - Base Case	
Enterprise Value	733.2
NFP/(Cassa)	606.1
Equity value	127.2

Sensitivity Equity Value						
Equity value al 31.12.2016						
€ '000						
		Wacc				
		12.0%	11.5%	11.0%	10.5%	10.0%
g rate	1.0%	110.1	142.6	178.4	217.9	261.8
	0.5%	88.4	118.5	151.5	187.8	228.0
	0.0%	68.6	96.6	127.2	160.7	197.5
	-0.5%	50.3	76.5	104.9	136.0	169.9
	-1.0%	33.5	58.0	84.5	113.4	144.9

Sensitivity Enterprise Value						
Equity value al 31.12.2016						
€ '000						
		Wacc				
		12.0%	11.5%	11.0%	10.5%	10.0%
g rate	1.0%	716.1	748.6	784.4	824.0	867.9
	0.5%	694.5	724.6	757.6	793.9	834.0
	0.0%	674.6	702.7	733.2	766.7	803.5
	-0.5%	656.4	682.5	711.0	742.0	776.0
	-1.0%	639.5	664.0	690.6	719.5	750.9

Source: Personal Elaboration

To achieve a higher growth rate and make it sustainable in the long term the company should find an investors able to enhance a new development strategy funding capital expenditure in order sustain, for example, the entrance in new and less risky markets, where the Hotel Leela can definitely sell a premium service with a degree of differentiation contributing to the increase of revenues. It is not plausible to be only focused, as growth strategy, on the sale of assets to repay debt relying on new risky projects such the premium real estate development in a country that until now presents huge infrastructure complexities and do not have a proven success track in real estate industry. Heavy construction investments are currently ongoing in the country but more focused on “housing for all” than on premium real estate.

To conclude, the current stock price seems to be slightly overweight due to the uncertainty related to the time horizon of debt repayment and the uncertainty and the slowness of the assets divesture process that actually represents the main mission of the company. Moreover, the stock price is

definitely sensible to new information so, if positive rumors have increased the stock price overnight of the 22.1% the opposite effect can be caused by negative events. The industry is hugely concentrated and many players are fighting for market share so increase the RevPar is not an easy task too especially if operations have to be conducted with an eye to operating cost reduction. What could boost company's performance is the entrance of a new financial partner that, thanks to some fresh equity could enhance the switch from heavy to assets-light strategy and boost a second cycle of expansion plan managed with a wiser approach. Moreover, a more transparent and detailed disclosure of company performance from management would increase investors' confidence having more moderate reactions in case of challenging events.

The valuation methods applied in this dissertation are not universal ones but reliable approaches that have to be critically applied by the appraiser according to the object of the valuation.

Appendix

Appendix 1: Historical P&L

Historical Profit & Loss Statement - The Hotel Leela Venture Ltd.				
INR mln	2013A	2014A	2015A	2016A
Room Revenues	3,559	3,795	3,104	3,347
Food Revenues	2,093	2,525	2,426	2,425
Revenues from managed hotels	156	150	136	189
Revenues from rental & services	185	177	162	121
Other operating revenues	455	537	536	528
Revenues from operation	6,447	7,184	6,365	6,609
Other Revenues	67	497	66	94
Total Income	6,514	7,682	6,431	6,703
yoy%	n.a.	17.9%	(16.3%)	4.2%
Cost of material consumed	(510)	(619)	(599)	(615)
Consumption of store, supplies and fuel	(866)	(1,000)	(847)	(772)
COGS	(1,376)	(1,619)	(1,446)	(1,387)
First Margin	5,138	6,063	4,985	5,317
% on Total Income	78.9%	78.9%	77.5%	79.3%
Cost of services	(1,132)	(1,084)	(1,267)	(868)
Repair and maintainance	(386)	(457)	(376)	(357)
<i>Repair and maintainance - buildings</i>	<i>(58)</i>	<i>(82)</i>	<i>(72)</i>	<i>(60)</i>
<i>Repair and maintainance - machinery</i>	<i>(122)</i>	<i>(154)</i>	<i>(118)</i>	<i>(119)</i>
<i>Repair and maintainance - others</i>	<i>(206)</i>	<i>(221)</i>	<i>(187)</i>	<i>(178)</i>
Staff cost	(1,864)	(1,976)	(1,875)	(1,922)
Rental expenses	(378)	(394)	(365)	(367)
Other operating expenses	(184)	(202)	(118)	(178)
Total Operating Expenses	(5,321)	(5,732)	(4,002)	(3,691)
EBITDA	1,194	1,949	983	1,626
% on Total Income	18.3%	25.4%	15.3%	24.3%
Depreciation and Amortization	(1,387)	(1,807)	(2,268)	(2,399)
<i>Depreciation of Tangible Assets</i>	<i>(1,130)</i>	<i>(1,340)</i>	<i>(1,736)</i>	<i>(1,619)</i>
<i>Amortization of Intangible Assets</i>	<i>(20)</i>	<i>(24)</i>	<i>(40)</i>	<i>(34)</i>
<i>Amortization of Foreign Exchange</i>	<i>(236)</i>	<i>(442)</i>	<i>(492)</i>	<i>(746)</i>
EBIT	(193)	143	(1,284)	(773)
% on Total Income	(3.0%)	1.9%	(20.0%)	(11.5%)
Financial income and expenses	(4,053)	(5,016)	(1,975)	(879)
<i>Interest expenses</i>	<i>(4,053)</i>	<i>(5,016)</i>	<i>(1,975)</i>	<i>(879)</i>
<i>Finanacial Income</i>	-	-	-	-
EBT	(4,247)	(4,873)	(3,260)	(1,652)
Exceptional Items	33	-	(1,833)	(2,134)
EBT and Exceptional Items	(4,214)	(4,873)	(5,092)	(3,786)
Tax Expenses	(121)	459	543	69
<i>Credit asset written down</i>	<i>(330)</i>	-	-	-
<i>Excess provision</i>	<i>(22)</i>	<i>(42)</i>	<i>16</i>	-
<i>Deferred tax</i>	<i>231</i>	<i>501</i>	<i>527</i>	<i>69</i>
Profit / (Loss)	(4,335)	(4,415)	(4,549)	(3,717)
Gain on disposal of assets (discontinuing operation)	-	-	391	1,916
Profit / (Loss) for the year	(4,335)	(4,415)	(4,159)	(1,802)

Appendix 2: Historical BS

Historical Balance Sheet - The Hotel Leela Venture Ltd.				
INR mln	2013A	2014A	2015A	2016A
Tangible Assets	54,340	52,875	50,592	41,637
<i>Land</i>	20,645	19,805	19,647	16,833
<i>Buildings</i>	23,387	23,349	22,770	18,748
<i>Plant and Equipment</i>	7,268	7,024	6,034	4,581
<i>Furniture</i>	2,589	2,304	1,881	1,328
<i>Vehicle</i>	440	383	247	141
<i>Office equipment</i>	11	10	14	6
Intangible Assets	95	94	132	87
<i>Computer software</i>	62	61	90	59
<i>Licence fees</i>	19	22	34	20
<i>Website</i>	14	10	8	8
Non-current Investment	5,344	5,530	3,785	3,795
Intangible assets under development	-	-	-	1
Fixed assets held for sale	1,559	2,362	2,184	2,189
Total Assets	61,338	60,861	56,694	47,709
Trade receivables	588	716	512	636
Other receivables (incl. VAT credit)	471	321	271	353
Inventory	713	640	526	437
Other assets	51	36	26	43
Current assets	1,824	1,713	1,336	1,469
Trade payables	(449)	(643)	(649)	(668)
Other payables	(51)	(51)	(68)	(100)
Current liabilities	(19,171)	(22,003)	(3,620)	(3,578)
Operative Net Working Capital	(17,347)	(20,290)	(2,284)	(2,109)
DTA	1,003	1,891	2,655	2,238
DTL	(2,228)	(2,616)	(2,724)	(2,238)
Net Working Capital	(18,573)	(21,015)	(2,353)	(2,109)
Provision for employee benefits	(202)	(184)	(247)	(210)
Trade / security deposit received	(211)	(227)	(217)	(169)
Net Invested Capital	42,352	39,435	53,877	45,221
Cash and Cash Equivalents	(354)	(277)	(252)	(447)
Financial borrowings (LT)	27,143	25,789	49,949	42,576
<i>Debentures</i>	675	450	675	450
<i>Foreign Currency Loan (Bank)</i>	1,564	1,863	1,878	1,622
<i>Foreign Currency Loan (HDFC Ltd.)</i>	5,870	6,486	8,797	9,323
<i>Rupee Term Loan (HDFC Ltd.)</i>	18,955	16,949	123	13
Rupee term loan assigned to ARC's	-	-	38,341	30,975
<i>JM Fin. Asset Reconstruction Co. Pvt. Ltd.</i>	-	-	37,966	30,674
<i>Phoenix ARC Pvt. Ltd.</i>	-	-	376	301
Other loans	80	40	135	193
Financial borrowings (ST)	3,337	5,223	-	714
NFP/(Cash)	30,126	30,735	49,697	42,843
Share capital	837	903	933	933
Reserves and surplus	11,389	7,797	3,247	1,445
<i>Reserves</i>	12,458	13,281	13,178	10,434
<i>Surplus / (deficit) in P&L</i>	(1,069)	(5,484)	(9,931)	(8,989)
Profit / (loss) from operations	(4,335)	(4,415)	(4,159)	(1,802)
Shareholder equity	7,891	4,286	21	577
Sources	38,018	35,021	49,718	43,420

Appendix 3: Historical P&L in Euro

Historical Profit & Loss Statement - The Hotel Leela Venture Ltd.				
€ mln	2013A	2014A	2015A	2016A
Room Revenues	49.8	53.1	43.5	46.9
Food Revenues	29.3	35.4	34.0	33.9
Revenues from managed hotels	2.2	2.1	1.9	2.6
Revenues from rental & services	2.6	2.5	2.3	1.7
Other operating revenues	6.4	7.5	7.5	7.4
Revenues from operation	90.3	100.6	89.1	92.5
Other Revenues	0.9	7.0	0.9	1.3
Total Income	91.2	107.5	90.0	93.8
yoy%	n.a.	17.9%	(16.3%)	4.2%
Cost of material consumed	(7.1)	(8.7)	(8.4)	(8.6)
Consumption of store, supplies and fuel	(12.1)	(14.0)	(11.9)	(10.8)
COGS	(19.3)	(22.7)	(20.2)	(19.4)
First Margin	71.9	84.9	69.8	74.4
% on Total Income	78.9%	78.9%	77.5%	79.3%
Cost of services	(15.8)	(15.2)	(17.7)	(12.1)
Repair and maintainance	(5.4)	(6.4)	(5.3)	(5.0)
<i>Repair and maintainance - buildings</i>	<i>(0.8)</i>	<i>(1.2)</i>	<i>(1.0)</i>	<i>(0.8)</i>
<i>Repair and maintainance - machinery</i>	<i>(1.7)</i>	<i>(2.2)</i>	<i>(1.6)</i>	<i>(1.7)</i>
<i>Repair and maintainance - others</i>	<i>(2.9)</i>	<i>(3.1)</i>	<i>(2.6)</i>	<i>(2.5)</i>
Staff cost	(26.1)	(27.7)	(26.3)	(26.9)
Rental expenses	(5.3)	(5.5)	(5.1)	(5.1)
Other operating expenses	(2.6)	(2.8)	(1.7)	(2.5)
Total Operating Expenses	(74.5)	(80.3)	(56.0)	(51.7)
EBITDA	16.7	27.3	13.8	22.8
% on Total Income	18.3%	25.4%	15.3%	24.3%
Depreciation and Amortization	(19.4)	(25.3)	(31.7)	(33.6)
<i>Depreciation of Tangible Assets</i>	<i>(15.8)</i>	<i>(18.8)</i>	<i>(24.3)</i>	<i>(22.7)</i>
<i>Amortization of Intangible Assets</i>	<i>(0.3)</i>	<i>(0.3)</i>	<i>(0.6)</i>	<i>(0.5)</i>
<i>Amortization of Foreign Exchange</i>	<i>(3.3)</i>	<i>(6.2)</i>	<i>(6.9)</i>	<i>(10.4)</i>
EBIT	(2.7)	2.0	(18.0)	(10.8)
% on Total Income	(3.0%)	2.2%	(19.7%)	(11.9%)
Financial income and expenses	(56.7)	(70.2)	(27.7)	(12.3)
<i>Interest expenses</i>	<i>(56.7)</i>	<i>(70.2)</i>	<i>(27.7)</i>	<i>(12.3)</i>
<i>Finanacial Income</i>	-	-	-	-
EBT	(59.5)	(68.2)	(45.6)	(23.1)
Exceptional Items	0.5	-	(25.7)	(29.9)
EBT and Exceptional Items	(59.0)	(68.2)	(71.3)	(53.0)
Tax Expenses	(1.7)	6.4	7.6	1.0
<i>Credit asset written down</i>	<i>(4.6)</i>	-	-	-
<i>Excess provision</i>	<i>(0.3)</i>	<i>(0.6)</i>	<i>0.2</i>	-
<i>Deferred tax</i>	<i>3.2</i>	<i>7.0</i>	<i>7.4</i>	<i>1.0</i>
Profit / (Loss)	(60.7)	(61.8)	(63.7)	(52.0)
Gain on disposal of assets (discontinuing operation)	-	-	5.5	26.8
Profit / (Loss) for the year	(60.7)	(61.8)	(58.2)	(25.2)

Appendix 4: Historical BS in Euro

Historical Balance Sheet - The Hotel Leela Venture Ltd.				
€ mln	2013A	2014A	2015A	2016A
Tangible Assets	760.8	740.2	708.3	582.9
<i>Land</i>	289.0	277.3	275.1	235.7
<i>Buildings</i>	327.4	326.9	318.8	262.5
<i>Plant and Equipment</i>	101.8	98.3	84.5	64.1
<i>Furniture</i>	36.2	32.3	26.3	18.6
<i>Vehicle</i>	6.2	5.4	3.5	2.0
<i>Office equipment</i>	0.2	0.1	0.2	0.1
Intangible Assets	1.3	1.3	1.9	1.2
<i>Computer software</i>	0.9	0.9	1.3	0.8
<i>Licence fees</i>	0.3	0.3	0.5	0.3
<i>Website</i>	0.2	0.1	0.1	0.1
Non-current Investment	74.8	77.4	53.0	53.1
Intangible assets under development	-	-	-	0.0
Fixed assets held for sale	21.8	33.1	30.6	30.6
Total Assets	858.7	852.1	793.7	667.9
Trade receivables	8.2	10.0	7.2	8.9
Other receivables (incl. VAT credit)	6.6	4.5	3.8	4.9
Inventory	10.0	9.0	7.4	6.1
Other assets	0.7	0.5	0.4	0.6
Current assets	25.5	24.0	18.7	20.6
Trade payables	(6.3)	(9.0)	(9.1)	(9.3)
Other payables	(0.7)	(0.7)	(0.9)	(1.4)
Current liabilities	(268.4)	(308.0)	(50.7)	(50.1)
Operative Net Working Capital	(242.9)	(284.1)	(32.0)	(29.5)
DTA	14.0	26.5	37.2	31.3
DTL	(31.2)	(36.6)	(38.1)	(31.3)
Net Working Capital	(260.0)	(294.2)	(32.9)	(29.5)
Provision for employee benefits	(2.8)	(2.6)	(3.5)	(2.9)
Trade / security deposit received	(3.0)	(3.2)	(3.0)	(2.4)
Net Invested Capital	592.9	552.1	754.3	633.1
Cash and Cash Equivalents	(5.0)	(3.9)	(3.5)	(6.3)
Financial borrowings (LT)	380.0	361.0	699.3	596.1
<i>Debentures</i>	9.5	6.3	9.5	6.3
<i>Foreign Currency Loan (Bank)</i>	21.9	26.1	26.3	22.7
<i>Foreign Currency Loan (HDFC Ltd.)</i>	82.2	90.8	123.2	130.5
<i>Rupee Term Loan (HDFC Ltd.)</i>	265.4	237.3	1.7	0.2
Ruppee term loan assigned to ARC's	-	-	536.8	433.7
<i>JM Fin. Asset Recostruction Co. Pvt. Ltd.</i>	-	-	531.5	429.4
<i>Phoenix ARC Pvt. Ltd.</i>	-	-	5.3	4.2
Other loans	1.1	0.6	1.9	2.7
Financial borrowings (ST)	46.7	73.1	-	10.0
NFP/(Cash)	421.8	430.3	695.8	599.8
Share capital	11.7	12.6	13.1	13.1
Reserves and surplus	159.4	109.2	45.5	20.2
Profit / (loss) from operations	(60.7)	(61.8)	(58.2)	(25.2)
Shareholder equity	110.5	60.0	0.3	8.1
Sources	532.2	490.3	696.1	607.9

Appendix 5: Forecasted P&L and BS in Euro

Prospective Profit & Loss Statement - The Hotel Leela Venture Ltd.							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Revenues from operation	90.3	100.6	89.1	92.5	80.8	68.2	68.7
Total Income	91.2	107.5	90.0	93.8	82.1	69.6	70.1
Cost of material consumed	(7.1)	(8.7)	(8.4)	(8.6)	(7.1)	(6.2)	(6.3)
Consumption of store, supplies and fuel	(12.1)	(14.0)	(11.9)	(10.8)	(10.6)	(8.9)	(9.0)
COGS	(19.3)	(22.7)	(20.2)	(19.4)	(17.7)	(15.1)	(15.3)
First Margin	71.9	84.9	69.8	74.4	64.4	54.5	54.8
% on Total Income	78.9%	78.9%	77.5%	79.3%	78.5%	78.3%	78.2%
Total Operating Expenses	(74.5)	(80.3)	(56.0)	(51.7)	(42.6)	(34.4)	(32.9)
EBITDA	16.7	27.3	13.8	22.8	21.8	20.1	21.9
% on Total Income	18.3%	25.4%	15.3%	24.3%	26.6%	28.9%	31.3%
Depreciation and Amortization	(19.4)	(25.3)	(31.7)	(33.6)	(23.4)	(16.4)	(10.6)
EBIT	(2.7)	2.0	(18.0)	(10.8)	(1.6)	3.7	11.4

Prospective Balance Sheet - The Hotel Leela Venture Ltd.							
€ mln	2013A	2014A	2015A	2016A	2017F	2018F	2019F
Tangible Assets	760.8	740.2	708.3	582.9	484.2	406.8	346.5
Intangible Assets	1.3	1.3	1.9	1.2	1.1	1.0	0.8
Non-current Investment	74.8	77.4	53.0	53.1	43.7	36.7	31.2
Fixed assets held for sale	21.8	33.1	30.6	30.6	30.6	30.6	30.6
Total Assets	858.7	852.1	793.7	667.9	559.6	475.1	409.2
Trade receivables	8.2	10.0	7.2	8.9	7.4	6.3	6.3
Other receivables (incl. VAT credit)	6.6	4.5	3.8	4.9	2.5	2.1	2.1
Inventory	10.0	9.0	7.4	6.1	6.0	5.1	5.2
Other assets	0.7	0.5	0.4	0.6	0.5	0.5	0.5
Current assets	25.5	24.0	18.7	20.6	16.5	14.0	14.1
Trade payables	(6.3)	(9.0)	(9.1)	(9.3)	(7.3)	(5.9)	(5.6)
Other payables	(0.7)	(0.7)	(0.9)	(1.4)	(1.0)	(1.0)	(0.9)
Current liabilities	(268.4)	(308.0)	(50.7)	(50.1)	(50.4)	(42.2)	(41.5)
Operative Net Working Capital	(242.9)	(284.1)	(32.0)	(29.5)	(33.9)	(28.2)	(27.4)
DTA	14.0	26.5	37.2	31.3	31.3	31.3	31.3
DTL	(31.2)	(36.6)	(38.1)	(31.3)	(31.3)	(31.3)	(31.3)
Net Working Capital	(260.0)	(294.2)	(32.9)	(29.5)	(33.9)	(28.2)	(27.4)
Provision for employee benefits	(2.8)	(2.6)	(3.5)	(2.9)	(2.6)	(2.2)	(2.2)
Trade / security deposit received	(3.0)	(3.2)	(3.0)	(2.4)	(2.1)	(1.7)	(1.8)
Net Invested Capital	592.9	552.1	754.3	633.1	521.0	443.0	377.9
Cash and Cash Equivalents	(5.0)	(3.9)	(3.5)	(6.3)	(9.5)	(22.9)	(38.6)
Financial borrowings (LT)	380.0	361.0	699.3	596.1	508.1	433.1	376.8
Financial borrowings (ST)	46.7	73.1	-	10.0	-	-	-
NFP/(Cash)	421.8	430.3	695.8	599.8	498.6	410.1	338.2
Share capital	11.7	12.6	13.1	13.1	13.1	17.0	17.0
Reserves and surplus	159.4	109.2	45.5	20.2	20.2	20.2	20.2
Profit / (loss) from operations	(60.7)	(61.8)	(58.2)	(25.2)	(10.9)	(4.4)	2.5
Shareholder equity	110.5	60.0	0.3	8.1	22.4	32.8	39.7
Sources	532.2	490.3	696.1	607.9	521.0	443.0	377.9

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