Equity Valuation
Inapa – Investimentos, Participações e Gestão, S.A.

Vasco Menezes Martins
Nº 152109073

Advisor: Prof. Tudela Martins

Dissertation submitted in partial fulfillment of requirements for the degree of MSc in Business Administration – Major in Finance, at Universidade Católica Portuguesa

June 2011

Abstract

The purpose of this thesis was to conduct an evaluation of an Iberian listed company using all the knowledge acquired in the Finance Master. The company chosen was Inapa, a Portuguese paper distributor. This choice was neither random nor indifferent. Several reasons motivated it. First, Inapa had recently entered the PSI 20 Index - the group of twenty largest listed companies in the Portuguese Stock Exchange. Second, with 93% of its turnover outside of Portugal, Inapa is one of the most internationalized Portuguese companies and one of the top European paper merchants. Finally, although the company seemed in good track it had a delicate financial equilibrium, given its highly leveraged situation. All these factors added up to an interesting valuation challenge.

Inapa's equity value assessment was performed combining academic theory with best valuation practices. Throughout the valuation process several interviews with corporate analysts and managers were conducted, forming criteria to establish the necessary assumptions. In the end, the Adjusted Present Value method was used. Taking into account the company's characteristics this methodology was considered the most appropriate one.

At the end, a final value per share of 0,34€ was computed, translated into a Hold recommendation.

Acknowledgments

The author would like to express his gratitude to Professor Tudela Martins, the academic advisor, for the constant support, availability and helpful feedback; to Inapa's Investor Relations Officer, Dr. Hugo Rua, for all the information and data provided during our meetings and conversations; to the Millennium BCP equity analyst, Dr. João Mateus, for the important modeling advices; to the Caixa Banco de Investimento equity analyst, Dr. Carlos Jesus, for the crucial recommendations on Inapa's valuation; to Dr. José Morgado, Inapa´s CEO for allowing access to company figures and managers; to my colleagues of the equity research workshop, for the constructive discussions and toughs shared; and to my father for the constant support and help during the whole project.

1. Table of Contents

2. Introduction

As required by the International Master in Business Administration – Major in Finance – at the Católica Lisbon University, the present thesis aims to evaluate an Iberian listed company, in this case, the Portuguese paper distributer Inapa – Investimentos, Participações e Gestão, S.A.

The thesis is divided in three man chapters: the Literature Review, the company presentation and the equity valuation. In the Literature Review, the most relevant theoretical findings in equity valuation will be extensively explained, giving more attention to the methodologies used in Inapa's valuation. In the second chapter you will find a company description, where the company's history, its characteristics and its business are fully addressed. Still in this section, a macroeconomic overview of the paper industry is also presented. In the equity valuation chapter the methodology used will be explained in detail, including all relevant assumptions made. Finally, a comparison with *BPI* (*Banco Português de Investimento*) equity research and a sensitivity analysis are presented.

In the thesis conclusion, the main valuation findings are summarized and the author expresses some recommendations he believes might be relevant for Inapa.

3. Literature Review

3.1. Importance of Valuation

"For anyone involved in the field of corporate finance, understanding the mechanisms of company valuation is an indispensable requisite" (Fernandez, 2007). This is true not only in the case of mergers and acquisitions, where a company's fair value must be calculated, but also due to the important role that valuation has in helping to identify possible sources of economic value creation and destruction within the company. (Fernandez, 2007; Luehrman, 1997)

The importance of valuation becomes even clearer when the world-renowned finance professor Damodaran (2006) states that "valuation can be considered the heart of finance". The same author defends that a successful decision making process is directly linked with the "understanding of what determines and how to estimate the value of a firm". Luehrman (1997) shares a similar idea, arguing that valuation assumes an important role in the resource allocation decision making, which is considered an important driver of a company's overall performance.

Copeland, Koller and Murrin (2000), state that "all management decisions, either explicitly or implicitly, are based on some valuation model". And despite Pratt (2006) saying that "valuation is not a specific science" and Damodaran (2006) stating that "there is no such thing as a perfect valuation model", all analysts aspire to be as close to perfection as possible (Damodaran, 2006). Furthermore, despite all the different isues and challenges valuation problems pose to managers, they can always be analyzed as a function of three fundamental factors – cash, timing and risk (Luehrman, 1997).

Fernandez (2007) summarizes the most important purposes of valuation:

- In a company buying and selling operations (e.g. the highest price a buyer should pay)
- Valuation of listed and unlisted companies (e.g. to make comparisons between companies)
- Public offerings (e.g. to justify the price of the offered shares)
- Inheritances and wills (e.g. to compare the shares value with that of the other assets)

- Compensation schemes based on value creation (e.g. to know the sources of value creation)
- Identification of value drivers
- Strategic decisions and planning (e.g. to measure the impact of the company's possible policies and strategies on value creation and destruction)

In the recent years, according to Luehrman (1997), value estimations are no longer merely important to financial experts. Instead, there is a growing need for general managers to master valuation techniques, either to understand the evolution of a company's capital budget or simply to have a more active participation in a company's resource allocation process**.** It is easier to become skilled in valuation than to learn about the company's business. Thus managers have the potential to enhance the power of valuation analysis further than financial experts.

3.2. Valuation Methods

When it comes to firm valuation, analysts have at their disposal a wide variety of models to choose from. However, despite relying on different assumptions regarding the fundamentals that determine value, Damodaran (2006) and Fernandez (2007) believe that valuation methodologies can be assembled and classified in four main groups.

The first one encompasses all the cash flow discounting based models (DFC models), which are seen as a best practice when valuing corporate assets (Damodaran, 2006; Fernandez, 2007; Luehrman, 1997). According to Copeland, Koller and Murrin (2000) and Damadoran (2006), in DCF's valuation "the value of an asset is the future expected cash flow discounted back to its present value at a rate that reflects the riskiness of the cash flow".

The second comprises income statement based methods, also known as relative valuation, which attempt to determine the company's value taking into account the pricing of comparable assets relative to the size of its earnings, sales or through other market multiples calculated from the income statement.

The third group consists of balance sheet based models, where basically the company's value is calculated by estimating the value of its assets. However, these types of models do not

take into account important factors like the company's possible future evolution or the industry's current situation.

Contingent valuation is the fourth and last group of the proposed valuation methodologies. Here, option pricing models are used to calculate a possible value of the target asset that share option characteristics.

This literature review will provide a theoretical insight of the main findings within the three more commonly used groups. We will start with the DCF methodologies, followed by relative valuation and ending with contingent valuation. Nevertheless, due to its importance on Inapa's valuation, DCF and relative valuation will be further developed.

3.2.1. DCF Methods

As previously referred, according to Luehrman (1997), Damodaran (2005) and Fernandez (2007), Discounted Cash Flow valuation methods have emerged as best practice for valuing corporate assets, becoming an academic standard model for valuation. "The value of an asset is the present value of the expected cash flows on the asset, discounted back at a rate that reflects the riskiness of these cash flows" (Copeland, Koller and Murri, 2000; Damodaran, 2006; Luehrman, 1997).

For Copeland, Koller and Murrin (2000) a DCF based model is the method which maximizes the share value in the long run, since this approach captures "all elements of value" affecting a company's valuation. The same authors highlight the important role cash flows have on measuring value by advising managers to be more concerned about cash flows rather than accounting measures, because in valuation "cash is king".

Damodaran (2006), states that "we buy most assets because we expect them to generate cash flows for us in the future". Therefore, the value of an asset is a function of the expected cash flows on that asset, meaning, the higher and predictable cash flows are, the greater the value of the asset should be.

According to Fernandez (2007), the standard model for cash flow discounting obeys to the following expression:

$$V = \frac{CF_1}{1+R} + \frac{CF_2}{(1+R)^2} + \frac{CF_3}{(1+R)^3} + ... + \frac{CF_n + RV_n}{(1+R)^n} \qquad RV_n = \frac{CF_n \times (1+g)}{R-g}$$

Where:

CFn = cash flow generated by the company in period n

RVn = residual value of the company in the year n

r = discount rate

g = expected growth rate of cash flows after the explicit period

The firm's value expression illustrated above, has two distinctive time periods that need to be further explained. According to Damodaran (2006) one cannot estimate cash flows forever. First it is necessary to estimate cash flows for a "growth period" and then estimate a terminal value. Hence, the left part of the formula represents this "growth period" that is easier to predict, and the right side of the formula corresponds to an infinitive period of time where the firm will grow perpetually at a given stable rate – the Terminal Value. This "stable rate" cannot be higher that the growth rate of the economy in which the firm operates (Damodaran, 2006).

There are several ways to approach firm valuation through DCF's models. According to Damadoran (2006), there are four variants of discounted cash flow models:

- Discount Rate Adjustment Models (e.g. FCFF or FCFE)
- Certainty Equivalent Models (e.g. Utility models)
- Excess Return Models (e.g. EVA)
- Adjusted Present Value Models (e.g. APV)

Despite the number of DCF models, Fernandez (2007) argues that "under the same assumptions all the models are equivalent", always giving the same value. In accordance to the same author, this is reasonable since "the difference between the models relies only in the cash flows taken as the starting point for valuation". On the other hand, Luehrman (1997) explains that the difference between DCF methodologies " lies in the details of their execution, more specifically in how they explain the value that is created or destroyed as a result of financial or operational movements".

However, for the sake of simplicity, this thesis will only approach the discounted cash flow methods most commonly used. These methods are: the free cash flow to the firm (FCFF), the free cash flow to equity (FCFE), the adjusted present value (APV) and the economic value added (EVA).

3.2.1.1. The Free Cash Flow to the Firm (FCFF) Valuation

"Enterprise valuation values the entire business, with both assets in place and growth assets" (Damodaran, 2006). In accordance with the same author, a firm's value is obtained by discounting the free cash flow to the firm at the weighted average cost of capital (WACC). This value already contains both the tax benefits of debt effect and the expected risk augment related with debt. Other discount rates can be applied, but WACC's it's the most commonly used.

Therefore, the enterprise value (EV) is calculated as follows:

$$EV = \frac{FCFF_1}{1+WACC} + \frac{FCFF_2}{(1+WACC)^2} + \frac{FCFF_3}{(1+WACC)^3} + \ldots + \frac{FCFF_n + TV_n}{(1+WACC)^n} \qquad TV_n = \frac{FCFF_n \times (1+g)}{WACC - g}$$

Simplifying:

$$Enterprise\ \ Value = \sum_{i=1}^{n} \frac{FCFF_i}{(1+WACC)^i} + \frac{\frac{FCFF_{n+1}}{(WACC - G)}}{(1+WACC)^n}$$

Following the framework proposed by Copeland, Koller and Murrin (2000), Damodaran (2006) and Fernandez (2007) the FCFF can be calculated as follows:

Operating Income (EBIT)
- Normalized tax on EBIT
= NOPAT (EBIAT)
+ Depreciation and Amortization
= Cash Flows from Operations
- Change in Working Capital
- Capital Expenditures
= Free Cash Flow to the Firm

The FCFF can also be computed by withdrawing to the company's income all its expenses and reinvestments.

$$FCFF = EBIT(1-T) - CAPEX + Depreciation - \Delta NWC \pm \Delta Items$$

This is a cash flow after taxes and reinvestment needs but before any debt payments, thus providing a contrast to free cash flows to equity that are after interest payments and debt cash flows (Damodaran, 2006).

As stated before, even though there are other FCFF approaches, the most widely use is the weighted average cost of capital (WACC). The WACC discount rate, as the name suggests, computes the cost of equity in which each of the firm's sources of financing is proportionally weighted. According with Fernandez (2007) "this is the appropriate rate , since we are valuing the company as a whole (debt plus equity), we must consider the required return to debt and the required return to equity in proportion to which they finance the company".

Although several WACC formulas have been computed throughout the years, the most broadly used is the following:

$$WACC = R_E \times \frac{E}{D+E} + R_D \times \frac{D}{D+E} \times (1-T)$$

Where:

Re = cost of equity

Rd = cost of debt

E = market value of the firm's equity

D = market value of the firm's debt

E/V = percentage of financing that is equity

D/V = percentage of financing that is debt

T = corporate tax rate

Damodaran (2006) argues that "one of the core strengths of this model is its simplicity related to the fact that the impact of financing mix changes will be capture entirely by the discount rate rather than through the cash flows". Still, and according to Luehrman (1997), "the more complicated a company's capital structure, tax position, or fund-raising strategy, the more likely it is that mistakes will be made when using WACC's".

Finally, it is also very important to realize that FCFF is an indirect valuation method. Rather than value the equity directly, the equity is valued as the present value of the operating free cash flow less the present value of the cash paid to and received from the company's debt holders (Copeland, Koller and Murrin, 2000). In accordance with the authors, "as long as the discount rates reflect properly the riskiness of each cash flow stream, FCFF valuation will compute the same equity value as the direct discounting of cash flow to shareholders".

3.2.1.2. Adjusted Present Value (APV) Valuation

"The adjusted present value (APV) approach separates the effects on a firm's value of debt financing from the value of the assets of a business" (Damodaran, 2006). Also according to the same author, while in the other conventional DCF models the impact of financial maneuvers is reflected in the discount rate, "in an APV valuation the company's value is computed by first considering a no debt scenario and then adding both the benefits and the costs of borrowing".

One of the major apologists of the APV model is Luehrman (1997), who describes it as versatile and reliable, going so far as to assert that "APV will replace WACC as the DCF methodology of choice among generalists". Moreover, the author affirms that "APV always works when WACC does, and sometimes when the latter does not, and is less likely to make mistakes".

Damodaran suggests a three step analysis when valuating firms through an APV approach. Firstly, it is necessary to compute the value of the unlevered firm, meaning valuing the company considering a no debt scenario. The unlevered value is obtained by discounting the expected FCFF at the unlevered cost of equity, which (in this case D=0) is equivalent to the required return on assets. Still in accordance with Damodaran (2006) "the inputs required for this valuation are the expected cash flows, growth rates and the unlevered costs of equity".

Value of the unlevered firm:

$$V_U = \frac{FCFF_1}{1+R_U} + \frac{FCFF_2}{(1+R_U)^2} + \frac{FCFF_3}{(1+R_U)^3} + \ldots + \frac{FCFF_n + TV_n}{(1+R_U)^n} \qquad TV_n = \frac{FCFF_n \times (1+g)}{R_U - g}$$

Secondly, one needs to calculate the expected tax benefit for a specific debt level. The expected tax benefit is a function of the tax rate applied to the firm and is discounted to reflect the riskiness of this cash flow, commonly, at the required rate of return on debt.

Present Value of Tax Shields:

$$VTS = \sum_{n=1}^{00} \frac{T_n \times i_n \times D_n}{1+R_D}$$

Although the required rate of return on debt is the most broadly used, the choice of the correct tax shields discount rate is controversial and there is no consensus among financial analysts. In the following paragraphs, some of the diverse ideas regarding tax shield's discount rate will be briefly explained.

One of the first and older approaches was proposed by Miles and Ezzell (1980) who suggested that the interest tax shield should be discounted at the cost of debt in the first year, being discounted at the unlevered cost of equity in the following years. Yet, this method is aimed at companies with a fixed debt-to-equity target.

Fernandez (2004), argues that "the value of tax shields should be equal to the tax rate times the value of debt". Moreover, "tax shield's value should be equal to the difference between the value of the levered firm, incorporating tax benefits, and the value of the unlevered firm". Damodaran (2006) remarks that by using Fernandez (2004) point of view the value of the tax savings will be much higher than using the conventional method.

On the other hand, Cooper and Nyborg (2006) completely discord from Fernandez's (2004) theory, stating that "the value of the tax savings equals the present value of the interest tax savings, discounted at the cost of debt".

The third and last step of Damodaran's (2006) calculations concerns the estimation of the firm's default risk and bankruptcy costs, given a particular level of debt. According to the author, it is necessary to compute the probability of bankruptcy and the correspondent bankruptcy costs indirectly, by either estimating a bond rating or through a statistical approach based on visible characteristics of the firm. Based on a bond rating, to each debt level corresponds a default probability. Computing bankruptcy costs is more complicated due to the subjectivity of the perception of financial distress. The indirect costs of bankruptcy are usually related with stakeholder's reaction to the firm operations bad performance (e.g. higher employee turnover or loss of customers). Relying in Damodoran (2006) studies have proved that the extent of these costs can range from 10-25% of firm value.

For Luehrman (1997) APV's model comes out as the best alternative approach to the WACC, which is considered to be obsolete. Moreover, the author states that "by relying on the standard of *value additivity*, adding up the present value of each business/project, managers can know not only how much an asset is worth, but also which sources are creating or destroying value". In contrast, WACC includes all financing side effects into the discount rate.

3.2.1.3. The Free Cash Flow to Equity (FCFE) Valuation

Also know as equity valuation, this method simply values the equity stake in the business by discounting the expected shareholders cash flows at a discount rate that reflects the rate of return that is appropriate for the equity risk investors are bearing (Damodaran, 2006).

Therefore:

$$V_E = \frac{FCFE_1}{1+R_E} + \frac{FCFE_2}{(1+R_E)^2} + \frac{FCFE_3}{(1+R_E)^3} + \ldots + \frac{FCFE_n + RV_n}{(1+R_E)^n} \qquad RV_n = \frac{FCFE_n \times (1+g)}{R_E - g}$$

Where:

$FCFE$ n = Free cash flow to equity in period n

RVn = residual value of the company in year n

Re = cost of equity

g = growth rate

FCFE is “an estimation of how much cash a company can afford to return to its stockholders” (Damodaran, 2006). According to the same author it can be computed as follows:

Net Income
+ Depreciation
- Capital Expenditures
- Change in working capital
- (New debt issued – Debt repayments)
= Free Cash Flow to Equity (FCFE)

Luehrman (1997) recommends using an Equity Cash Flow approach “when valuing ownership claims, mostly related with mergers and acquisitions, buyouts, joint ventures or project finance”.

It is also important to mention that among FCFE models, “a significant part considers only dividends to be cash flows to equity” (Damodaran, 2006). Being the best known the Dividend Discount Model (DDM). The DDM discounts, at the cost of equity, expected dividends to its present value to obtain the equity value. Despite its relevance, no further analysis on this model will be done. The reasoning behind this decision it’s related to the fact that the dividends Inapa will distribute respect only to the preferred shares of the capital increase. Therefore, with dividends being a crucial input of this model, there are no incentives to continue exploring it.

3.2.1.4. The Excess Return Valuation

The excess return models are another variation of the DCF valuation methodologies. According to Damodaran (2006) “the excess return valuation approach splits the cash flows into excess return cash flows and normal return cash flows”. The same author explains that when a cash flow earns the risk-adjusted required return, which can be either the cost of capital or equity, it is considered a normal return cash flow, whereas excess return cash flows are above or below the required return. Bearing these explanations in mind, the value of a firm can be computed as follows:

Firm value = Capital invested in firm today + Present value of excess return cash flows from both existing and future projects

Despite the existence of several variations of excess return models, this literature review will only approach the most broadly used: the economic value added (EVA). Damodaran (2006) defines it as "a measure of the surplus value created by an investment or a portfolio of investments".

Therefore, EVA can be calculated as follows:

EVA = (Return on Invested Capital - Cost of Capital) x (Capital Invested)

Which is equivalent to:

EVA = After-tax operating income – (Cost of Capital) x (Capital Invested)

Still in accordance with Damodaran (2006), "EVA is nothing more than an extension of the net present value rule":

$$NPV = \sum_{t=1}^{t=n} \frac{EVA_t}{(1+k_c)^t}$$

3.2.1.5. Further Components in DCF Valuation

3.2.1.5.1. Estimating the Cost of Capital

After the theoretical analysis of the main DCF methodologies used in valuation provided in the first section of this literature review, it is possible to realize that, although each method uses the more appropriate discount rate, the cost of capital is a common element and has a crucial role in all.

According to Vernimmen (2005) "the cost of capital represents the minimum necessary rate of return for both shareholders and creditors". The cost of capital is of great importance for financial management since it assists in designing the optimal capital structure, investment

decisions and rational allocation of resources. Furthermore, an accurate cost of capital estimation is critical to a firm valuation. In accordance with Bruner, Eades, Harris and Higgins (1998) “the smallest change in capital costs percentage can result in billions of expenditures”.

The present section will approach the components required to calculate the cost of capital. These elements comprise the cost of equity, the risk free rate, the company betas and the market risk premium. Therefore, in the following subdivisions these four components will be analyzed with greater detail.

3.2.1.5.2. The Cost of Equity

By definition, the cost of equity represents the return that stockholders require as compensation for holding the asset and bearing the asset’s risk. Bruner, Eades, Harris and Higgins (1998) show evidence of a survey where it was concluded that the Capital Asset Pricing Model (CAPM) is the foremost used model for estimating the cost of equity.

“To compute the cost of equity, it is necessary to add the risk premium to the risk-free rate, with the amount of the premium being determined by the bared equity risk” (Damodaran, 2008). Therefore:

$$R_e = R_f + \beta(R_m - R_f)$$

Where:

R_f = risk-free rate (return on risk-free bonds)

R_m = the market return (return required to attract investors to hold the broad market portfolio of risky assets)

β = the relative risk of the particular asset

$(R_m - R_f)$ = the market risk premium

3.2.1.5.3. The Risk-free Rate

Hypothetically, the risk-free rate represents the return an investor expects to have from investing in a financial instrument with no risk. According to Damodaran (2008), “investors buy assets expecting a certain return over the time horizon that they will hold the asset. The

difference between the actual and the expected return is a function of the asset's risk". Therefore, the same author states that "in a risk-free investment the actual return should be equal to the expected return".

The risk-free rate assumes great importance since it is necessary to estimate both the cost of equity and the cost of debt (Damodaran, 2008).

For Copeland, Koller and Murrin (2000), theoretically, the best way to estimate a risk-free rate would be through a zero beta portfolio. However, this option is not valid due to its costs and complexity. As a result, government security rates have broadly being used as a standard for risk-free rates.

A major controversy concerning risk-free rates is related to the use of short term or long term rates (Damodaran, 2008). Bruner, Eades, Harris and Higgins (1998) in their study reveal that when opting for the two time periods, the choice usually relies on the long term. Damodaran's (2008) opinion is that "to consider the 10-year bond rate as the risk-free rate is a good practice in valuation". Damodaran's point of view is also supported by Copeland, Koller and Murrin (2000).

3.2.1.5.4. The Beta

"The beta represents a statistical measure of risk that quantifies an asset's volatility relative to the overall market". Rosenberg and Rudd (1982) define beta as "the key variable in the CAPM". The same authors explain that the market portfolio beta is 1. Furthermore, a beta higher than one represents more volatile stocks, while a beta with a value inferior to 1 is considered to be less volatile. Betas are usually estimated by regressing returns on an asset against returns on a stock index (Damodaran 2006).

Bruner, Eades, Harris and Higgins (1998) state that "in theory forward looking beta should be used". This would be the most accurate way to reflect invertors' uncertainty about future cash flows. However, the same authors consider these betas quite difficult to estimate since "they are unobservable". The proposed solution passes through relying on proxies. Sources like Bloomberg or Value Line provide reliable beta estimates based on historical data. Nevertheless, the use of historical data is at the same time one of the main problems pointed

to this alternative. The criticism concerns the fact that it is being taking into account historical betas that may not represent the current/future situation of the company.

Although they agree on using published estimates for beta, Copeland, Koller and Murrin (2000) suggest also using an industry average, at least as basis of comparison. The authors argue that, "since measurement errors tend to cancel out, this method is more stable and reliable than using individual company betas".

When relying on published estimates for beta, the following formula is generally used to get the unlevered beta:

$$B_U = \frac{B_L}{[1 + (1 - T_C) \times (D/E)]}$$

Where:

Bu = Unlevered beta

Bl = Levered beta

D/E = Debt to equity ratio

Tc = Nominal tax rate

3.2.1.5.5. The Market Risk Premium

"The market risk premium is the difference between the expected market return and the risk-free rate" (Copeland, Koller and Murrin, 2000). The main debate concerning the market risk premium is related with the measurement of the future returns either on the market portfolio or on the risk-free assets. Due to the fact that these returns are unobservable, financial experts are divided on the best way to estimate them. The main issue is whether to use arithmetic versus a geometric mean. As defined by Bruner, Eades, Harris and Higgins (1998), "the geometric mean return is the internal rate of return between a single outlay and one or more future receipts". For Copeland, Koller and Murrin (2000), "the arithmetic mean return estimates the rates of return by taking a simple average of the single period rates of return".

Copeland, Koller and Murrin (2000), recommend using the geometric averages "since they not only represent a better estimate of investors expected returns over long periods of time,

but also because this method is not influenced by the measurement period". On the other hand, assuming a stable distribution of returns and the independency of returns, Bruner, Eades, Harris and Higgins (1998) defend that arithmetic averages are the best estimator of future returns. Regarding possible values both groups of authors recommend using a 5-6% risk premium rate.

3.2.2. Relative Valuation

Relative valuation, an income statement based valuation method, attempts to determine the company's value taking into account the pricing of "comparable" assets relative to the size of its earnings, sales or through other market multiples calculated from the income statement. In relative valuation, "an asset value is estimated taking into consideration how similar assets are priced in the market" (Damodaran, 2006).

"A properly executed multiples analysis can make financial forecasts more accurate" (Goedhart, Koller and Wessels, 2005). According to the same group of authors, multiples analysis can be an important complementary instrument to DCF valuations, which are considered to be the most accurate and flexible valuation methods, giving a market perspective over the latter. Some of the advantages they found can help a company to: "stress tests the company's cash flow forecasts; understand mismatches between a company's performance and that of its competitors; define the strategy to adopt to create more value; and comprehend the key drivers of value creation within the industry".

Damodaran (2006), states that "if the market is correct DCF and multiples valuation may, on average, converge". Therefore, multiples valuation accuracy depends a lot on the market's efficiency.

Goedhart, Koller and Wessels (2005), have identified four main principles for a better appliance of multiples valuation: "choose companies with similar forecasts for ROIC and growth; use forward-looking multiples; use enterprise-value multiples; and adjust the enterprise-value-to-EBITA multiple for non operating items".

Although being considered a great advantage to a more precise valuation, multiples valuation has also some shortcomings. Goedhart, Koller and Wessels (2005) have identified

three main limitations. The first one is related to the companies we should choose in order to serve has comparables in a multiple analysis. Despite some possible similarities, investor's expectations towards each company's ability to create value diverge. Therefore, even if companies share common aspects and operate within the same industry they may not be the best comparables. Furthermore, there is a wide range of multiples that can be use in a multiples analysis. This is precisely the second problem pointed by the authors, since different multiples can lead to contradictory conclusions. Finally, the importance of each multiples varies depending on each company context. In some situations some may be meaningful while others aren't.

3.2.2.1. The Peer Group

The peer group concerns a set of comparable firms necessary to apply an effective relative valuation analysis. One of the main challenges regarding this issue is which companies should be included or not within the peer group.

According to Damodaran (2006) "a comparable firm is one with cash flows, growth potential and risk similar to the firm being valued". The same author argues that "the industry or sector in which the company operates is not a key component when choosing the comparable firms". However, this is not the opinion of the majority of the analysts who define a comparable firm as other firms in the same business. Damodaran (2006) explains that the assumption behind this opinion is that "companies within the same business will share similar risk, growth and cash flow profiles". The author agrees with this belief, despite doubting about its applicability due to a small number of comparable firms in a sector. This last issue can also lead to another shortcoming since, by trying to increase the number of possible companies for comparison, the sector range is extended in such a way that the peer group ends up being very heterogeneous, compromising relative valuation.

3.2.2.2. Market Multiples

There is a wide range of different multiples that can be applied depending on the type of valuation, company or industry that is being analyzed. Therefore, and for the sake of simplicity, in the following sections this literature review will only address the multiples most frequently

used and the ones that will be used on Inapa's valuation. According to Fernandez (2008) the most widely use are the PER and the EV/EBITDA. These multiples can be divided in equity value multiples and enterprise value multiples.

3.2.2.2.1. Earnings per Share (EPS)

For Copeland, Koller and Murrin (2000), "EPS's is useful multiple, requiring simple calculations, easy to understand and which responds well to various business questions". However, by neglecting several accounting aspects, EPS's can be misunderstood leading managers to make decisions that can destroy value in the long run.

3.2.2.2.2. Price-Earnings Ratio (PER)

The PER is an equity value multiple and it is one of the most broadly used. It links the company value to profits, is very easy to calculate for most companies and, usually, takes into account risk and the earnings per share (EPS) growth. However, according to Goedhart, Koller and Wessels (2005), "PER multiple is easy to manipulate since it is highly affected by the firm's capital structure". This multiple is calculated as follows:

$$PER = \frac{Market\ value\ per\ share}{Earnings\ per\ share}$$

3.2.2.2.3. Price to Book Value (PBV)

The PBV is also within the equity value multiples and compares the price of today with historical equity. It is an easy multiple to calculate, very stable, objective and that can be used in companies with losses. On the other hand, since it takes into account the book values and historical equity, it is not a good multiple to foreseen the future. It is like driving a car looking at the mirror. According to Damodaran (2006) the PBV main value drivers are expected growth, risk, payout and the return on equity (ROE). It is possible to compute this multiple by applying the formula:

$$PBV = \frac{Market\ value\ per\ share}{Book\ value\ per\ share}$$

3.2.2.2.4. Enterprise Value Multiples - EV/EBITDA

According to Damodaran (2006) "it is also possible to estimate the value of a company as a multiple of the operating income or the earnings before interests, taxes, depreciation and amortization (EBITDA)". The EV/EBITDA is an enterprise value multiple considered by Goedhart, Koller and Wessels (2005) "a good alternative to the PER". Although there are other similar enterprise multiples the EV/EBITDA is the most commonly used.

Compared to its closest enterprise value multiple (EV/EBIT), EV/EBITDA has the advantage of not accounting for the effect of amortization and depreciation. This information is important because when dealing with book values, they can be altered or manipulated to increase or decrease the value of the company.

According to Damodaran (2006), the EV/EBITDA main value drivers are expected growth, reinvestment rate, risk, return on capital employed (ROCE) and tax rates. This multiple is calculated through the formula:

$$EV/EBITDA = \frac{Enterprise\ Value}{EBITDA}$$

3.2.3. Contingent Valuation

Contingent claim valuation, most commonly known as option theory, "uses option pricing models to measure the value of assets that share option characteristics" (Damoradan, 2006).

For Luehrman (1997) "Option Pricing methods are most adequate to be used when valuing opportunities". For some companies (e.g. new technologies or fast-growing markets) opportunities are their most valuable "asset". Option valuation is used to decide whether or not to make a decision, having in mind the specific circumstances involved. This flexibility that options give are of great value and its impact on a company's valuation is not considered in the methodologies explained before. The most widely used option pricing models are the binomial and the Black-Scholes model. However, due to the complexity of these models and given the fact that they will not be applied on Inapa's valuation, no further analysis will be presented.

3.3. Final Remarks

The main purpose of this literature review is to highlight the importance of valuation and provide a brief overview about the existent theory and evidence concerning valuation methodologies. Moreover, it aims to provide the theoretical background for most of the aspects that will be analyzed in the following chapters of this thesis. Still, some sections of the literature exposed will not be addressed.

After realizing the existence of this wide range of possible valuation models, a critical question remains unclear: Which model to choose?

A positive point of view to this question is that the answer can be neither right nor wrong. As stated earlier, “equity valuation is not a precise science” (Pratt, 2006) and “there is no such thing as a perfect valuation model” (Damodaran, 2006). All models complement each other. As Luehrman (1997) affirms, “most companies use a mix of approaches to estimate value”. The same author explains that “some methodologies are formal, comprising a theory and a model; others are informal, operating by “rules of thumb”, some are applied explicitly while others implicitly”. Furthermore, as stated by Fernandez (2007), “under the same assumptions most of the methods should give equivalent results”.

“Every valuation method expresses the same thing, the same underlying purpose. Every method, process or approach to valuation is different but all of them have the same goals, and in the end, more or less the same results” (Young, Sullivan, Nokhasteh and Holt; 1999).

Managers should be able to know the business where the firm operates and to have the sensitivity to know which model fits their purposes best.

4. Inapa’s Presentation

This chapter is intended to give the reader a greater knowledge of Inapa’s history and operations. First, a brief historical introduction will give insight into company roots. Next, an overview of the company's current situation will be explained, including a brief description over each of the countries where it operates. Finally, an explanation about Inapa’s different businesses will be presented.

4.1. Inapa's History

Inapa, acronym for Indústria Nacional de Papéis, was officially incorporated over four decades ago, more specifically in 1965, becoming a reference brand in the world of fine writing and printing papers.

Inapa's history contains a summary of many of the vicissitudes which marked the Portuguese business world in the end of 20th century: the enthusiasm for economic growth, the post-revolutionary atmosphere, the indirect effects of nationalizations and subsequent privatizations as well as European and global market challenges.

Following the success of the pulp industry in Portugal in the '50s/´60s, Inapa had a high potential program in its possession. This consisted in a major remodeling of the then fragile and fragmented paper sector, in those days distributed among many small companies, most of which working with obsolete and very low production equipments. The project was extremely innovative: a manufacturing plant would be built downstream of a cellulose pulp mill (most of which was up until then exported) with the ultimate aim of becoming a value generating national center. With this project, Inapa was creating a value chain, interconnecting forest-pulp-paper with a clear perspective of the industry structure.

At the time it was clear that the paper business no longer made sense on its own. It would have to integrate both pulp and paper production. The rules were dictated by the market which indicated that if the sector was to succeed, then the different activities would have to be integrated. Nevertheless, during the reorganization of the pulp and paper industry in Portugal, in 2000, Inapa's industrial component was sold to Portucel Industrial (former Socel). Having fulfilled its initial objective as a paper producer, whilst also working on distribution in the European market since the 80's, from 2000 onwards its business entirely concentrated on paper distribution.

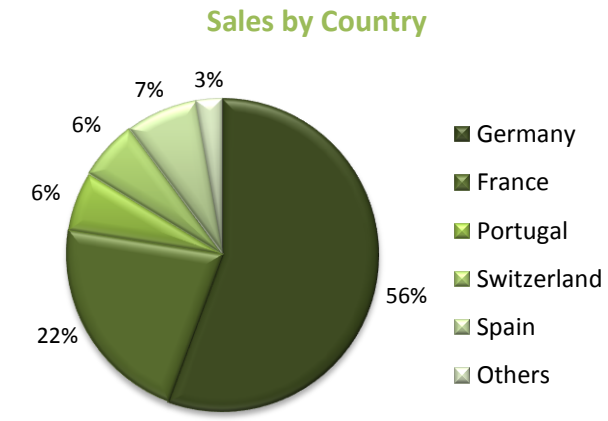
As we can see, Inapa went through a metamorphosis process, changing from a paper business to a paper merchant. The group's primary activity hence changed from industry to distribution.

4.2. Inapa's Profile

4.2.1. Company Overview

With an innovative business model suited to the new sector features, Inapa Group is a leading player in Europe's paper merchant market. The Group operates in nine countries and its growth and profitability strategy is based on meeting market needs, maintaining close relationships with customers and offering quality services.

Following a concerted development strategy strongly geared by acquisitions from 1998 to 2000, Inapa managed to become a leading paper merchant in the European market, being ranked among the top five European paper merchants. With 94% of its turnover outside of Portugal, Inapa is one of the most internationalized Portuguese companies. Germany and France, the Group leading markets, jointly account for about 80% of consolidated annual turnover.

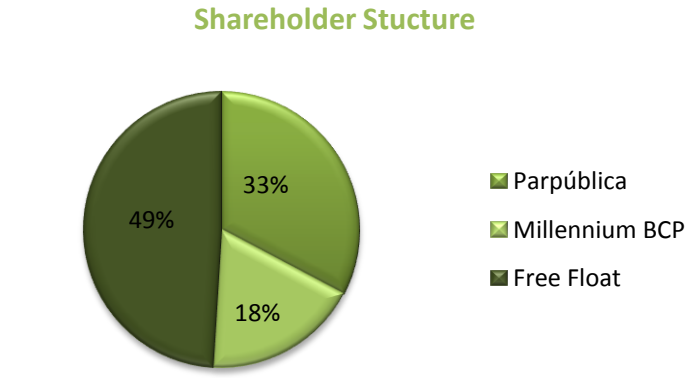


Source: Inapa Annual Report 2010

Group staff reaches 1,484 employees, serving the needs of over 70.000 customers. Its product portfolio includes 12.000 paper specifications, 16.000 office supplies items, 4.000 packaging items, and a full range of visual communication products and graphic supplies.

4.2.2. Shareholder Structure

Inapa is a public company, listed in Lisbon stock exchange, with a 49% free float. It has two major shareholders, Parpublica - a Portuguese State holding - with 33% and Millennium BCP- the biggest Portuguese private bank - with 18%.



Source: Inapa Annual Report 2010

Inapa stock was included in PSI20 in March of 2010, an index consisting of the 20 biggest companies listed in the Lisbon Stock Exchange (LSE), and moved out in March of 2011.

4.2.3. Market Coverage

Inapa has a strong and diversified geographic foothold strategically concentrated in markets where it can assume a relevant position or in markets were strong profits can be achieved.

Currently Inapa is present in eight European countries – Germany, France, Switzerland, Portugal, Spain, Belgium, and Luxemburg – and since 2009 it has been operating in Angola, its first venture outside Europe. The table above shows Inapa's market position in each country.

Annex 11 presents a full description of each of the company's subsidiaries.

4.2.4. Business Areas

Inapa operates in the paper distribution industry. The company's core activity is sale and distribution of paper. Besides its main activity, Inapa also provides services related to paper and has two complementary businesses with promising futures: packaging and visual communication.

4.2.4.1. Paper Distribution

Paper distribution is Inapa's core business and the Group is a leading player in the European market. With annual turnover of approximately one million tons, it offers a full range of paper products to over 70,000 customers.

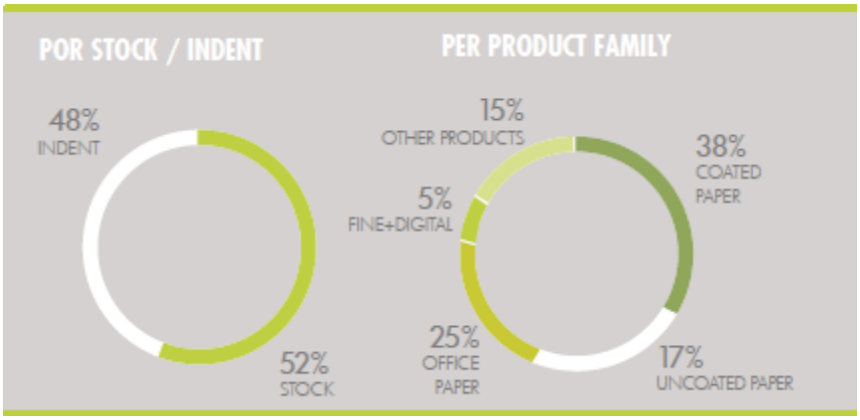
Source: Inapa Annual Report 2010

Inapa's market approach is based on high service standards, not only in paper quality and quick delivery, but also in client specific services. As a matter of fact and in addition to paper distribution, Inapa's highly specialized and experienced team provides expert technical advice to its customers with a view to enhance their productivity and to contribute towards their success. Regarding the logistics services, Inapa guarantees delivery within 24 hours anywhere within the eight European countries where it operates, out of its 28 warehouses and logistics platforms.

It is also important to cite that in paper distribution, sales are generally divided into stock sales and indent sales. Stock sales are typical distributor sales. It implies having paper in stock, so that it can be immediately made available to customer requests, usually a lot of small quantities orders. On the other hand, in indent sales the distributor does not hold the product in stock at the warehouse. Once received an order, the distributor places the order to the

producer. It is like a "just-in-time" strategy, the company starts "producing" when the order is placed. Due to its characteristics these kind of sales are usually associated with selling large quantities to one buyer, or specific type of orders. In revenue terms, companies should focus on increasing the stock sales ratio, since this type of sales enjoys higher margins than the indent sales.

In 2009, stock sales accounted for 52% of Inapa's distribution sales. Within the company sales, the most distributed papers are the coated wood free paper (CWF), the office paper (included in the office supplies section) and the uncoated wood free paper (UWF).



Source: Inapa Annual Report 2010

Having consolidated its position as one of the leading European paper merchants over the last few years, Inapa now is one of the top three players in its core markets and a reference among European paper merchants.

4.2.4.2. Office Supplies

The sale and distribution of office papers represent about 25% of the Group's total turnover. The majority of customers in this business segment are companies, offices, and public organizations, usually with specific paper requirements and requiring deliveries to be carried out according to demanding service standards. In order to provide those customers with a one-stop-shop service, Inapa has established a number of partnerships with well known office supplies distributors in each of its markets, ensuring the provision of a full range of products.

At the same time and through its Office Paper brand - Inapa Tecno, the Group is now able to provide a range of toners and ink cartridges that are finding increasing acceptance among customers, thanks to their high performance both in terms of printing quality and cost-effectiveness.

4.2.4.3. Packaging

In complementary businesses, the distribution of packaging materials and packaging solutions is the largest one. With a turnover of 34 million Euros in 2010, the packaging business is settled in Germany, France and, more recently, Portugal.

Source: Inapa Annual Report 2010

In addition to offering standard packaging solutions tailored to the specific needs of its customers, Inapa has been introducing innovative solutions to the market, based on its unique technology, packaging concepts and designs. As far as this segment is concerned, Inapa offers a wide variety of packaging products ranging from cardboard boxes to plastic bags, to wrapping film, adhesive tape, bubble wrap, archiving boxes, palettes, and to a host of other equipment and packaging supplies.

Given increasing demand for safe and versatile packaging and a steadily growing market, this business area provides the Group with attractive opportunities. It also benefits from logistics synergies and cross-selling opportunities. In summary, the outlook for continued growth in this business segment looks bright.

4.2.4.4. Visual Communication

The new printing technologies, the spate of innovations in support materials and the new concepts in communications introduced in recent years, led the Group to approach this business segment in 2008. Inapa's performance in this segment has been quite encouraging. Visual Communication is the segment which has the highest grow rate within the sector. Sales in 2010 increased 24% over 2009.

Source: Inapa Annual Report 2010

The business includes not only printing supplies but also consumables, sales of printing hardware and software, and provision of hardware maintenance services. The Group is developing this business segment at its paper merchant subsidiaries and has already become one of the top players in this segment in Germany.

5. Industry Overview

In this section we will provide information about the most important facts and figures related with Inapa's businesses. Moreover, an outlook for the upcoming years will also be presented.

5.1. Macroeconomic Situation

The year of 2010 was marked by doubts about the evolution of European economies, the crisis in the financial sector and uncertainty about the balance of public accounts in several countries.

During the first half of 2010, worries around the recovery in economic growth caused the governments of the major European economies to keep the incentives in order to accelerate the recovery during this strong period of crisis. As a result, some economies like Germany, France and Switzerland have begun to show signs of growth. Despite all the efforts for some economies, e.g. Spain, 2010 has still been a year of contraction.

GDP Real Growth Rate

Country	2010	2009
Germany	3,60%	-4,70%
France	1,60%	-2,60%
Switzerland	2,60%	-1,90%
Portugal	1,30%	-2,50%
Spain	-0,20%	-3,70%
EU (15)	1,70%	-4,10%

Source: Eurostat

The recent evolution of economies and the behavior of markets allow to foresee a continued trend of economic recovery. Therefore, it is expected that most European countries will have positive GDP's growth rates.

5.2. Paper Segment

In 2009, consumption of paper had a very substantial fall in most European countries, resulting in a decrease in tons sold of 11%. As a result of these numbers, the market has shrunk and competition rose, leading to further pressure on margins. Most of the companies faced difficult times and had to apply cost reduction and optimization strategies to survive this crisis.

Despite the darkest period of the financial crisis has allegedly passed and the global economy is slowly recovering, the year of 2010 was also a year marked by economic uncertainty. Nevertheless, the behavior of the paper industry in 2010 was characterized by both a growth in volumes, about 3,9%, and in prices. These numbers result from the positive performance recorded in several economies, which led to an increase in demand. Given the strong relationship between GDP and consumption of paper, it is expected that with the economic recovery underway, paper consumption will continue to increase in coming years.

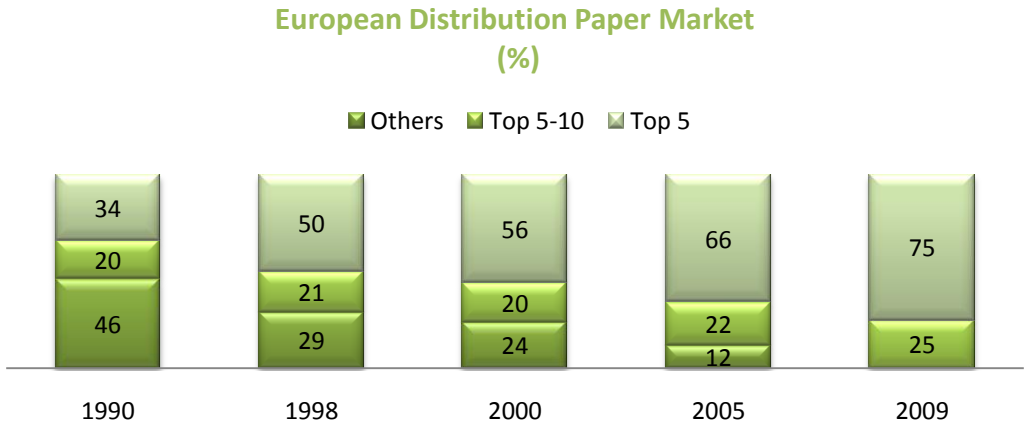
Indeed, demand for coated (CWF) and uncoated (UWF) papers recorded a positive growth. According to CEPI, acronym of Confederation of European Paper Industries, the change in the CWF was positive, over 2009, standing at 2.3%. UWF growth was higher - 4.1%. According to the same source, paper consumption in general rose approximately 5% when compared to 2009.

Moreover, the reduction of excess supply coupled with increasing demand and lower inventory levels, justifies the successive price increases by producers in coated and uncoated papers. Those increases only allowed a partial recovery of the decline verified since 2007, which may predict the possibility of maintaining this trend in the near future.

5.3. Market Analysis

As mentioned earlier, the dramatic drop in paper consumption in 2009 caused a large increase in competition in the market. However, some distributors such as Inapa were able to strengthen their position.

One of the causes for higher competition derived from the increasing diversification of players, including the producers of paper that started to extend their value chain and enter the paper distribution business.

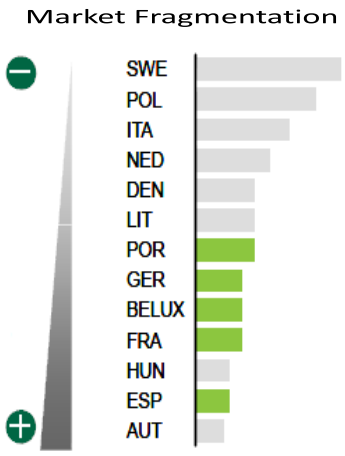


Source: Inapa Annual Report 2009

Good distributers, however, were able to strengthen their market position not only by enlarging their client base and/or addressing more customer segments, but also due to a greater flexibility to adapt and fulfill customer needs.

Moreover, the European market is increasingly consolidating, with a small number of large operators dominating the sector, being M&A between producers and distributors the main cause.

Some countries in which Inapa operates (in the graph in green) still present opportunities to be seized. In order to take advantage of this industry restructure Inapa must seek for consolidation opportunities and identify targets that offer synergy benefits (in terms of logistics and in the commercial side). On the other hand, the company should enter in markets with higher growth rates either through acquisitions or alliances. The entrance in Angola is a good example of what Inapa needs to continue doing. When thinking about a consolidation strategy it's very important for Inapa to know how to take advantage of cultural similarities, geographical proximity and complementarily within countries.



Source: Eugropa 2008

With the stagnation in the European market and the increasing competition, consolidation assumes a key role. The "size" of a company becomes very important in terms of bargaining power with producers. The increased influence over the producer could allow for more attractive prices. Furthermore, by increasing its size and consequently its volume, consolidation may at the same time enable companies to capture economies of scale. Within the context of great pressure over the business margins, strengthening the bargaining power over suppliers and achieving economies of scale becomes essential to survive in the distribution industry.

5.4. Complementary Businesses

Besides the consolidation strategy, there are other valuable alternatives to face paper market stagnation. Diversification is one of the most important. By diversifying its business, entering in areas with growth prospects and higher margins, the company is able to contra-balance the low margins prevailing in the distribution business. Inapa has started its diversification strategy three years ago, in 2008, with the entrance in the packaging and visual communication businesses. These businesses do have higher margins and positive growth prospects. Additionally, given some similarities with the company's core business, Inapa is able to leverage its know-how and benefit from synergies, boosting the complementary businesses performance.

5.4.1. Packaging

From the complementary businesses, the distribution of packaging materials and packaging solutions is the largest one. With a turnover of 34 million Euros in 2010, the packaging business is settled in Germany, France and more recently Portugal.

The packaging business recorded a strong growth in 2010, +18.4% compared to 2009, with sales of 33.9€ million. Sales were mainly carried out by direct sale of a portfolio of packaging products and by providing value added services associated with the package. Additionally, it is important to highlight the online sale channels that have been experiencing significant growth.

The market for packaging is still highly fragmented, representing a huge opportunity for companies like Inapa. Furthermore, the evolution of consumer habits confers interesting potential for long-term growth. In the future, Inapa's strategy for the packaging segment should focus on geographically close markets that share common cultural characteristics with the ones the company already operates and sizable companies with room for improvement in profitability.

5.4.2. Visual Communication

In 2010 there was a strong recovery in the graphics sector. After a period of crisis marked by uncertainty and difficulties in accessing credit (a crucial factor in the sale of equipment) the shift to digital technology boosted the sector. Sales increased 24%, compared to the previous year, to 25.5€ million. This growth is in line with the trend observed in recent years and expected to carry on.

During the past year, an effort was made to improve operational efficiency by capturing synergies with the paper distribution business. The distribution operations of visual communication are more integrated with paper distribution, mainly through the sharing of warehouses and logistics. As a result, Inapa was able to keep costs down despite the business's growth.

5.5. Final Remarks

In the near future Inapa must continue to pursue and intensify its diversification strategy giving special emphasis on three main points:

1. Changing needs of its core segments
2. Distributor core competencies
3. Optimization of existing structures

If the company pursues this path, it will certainly counter the stagnation effect of the paper market, improving its financial performance and securing its sustainable growth.

6. Inapa's Valuation

In this section, Inapa's valuation will be address. First, a brief description of the valuation methods used will be given. Second, all the assumptions made in Inapa's valuation will be explained, illustrating the results of the main headings of the financial statements. At the end, a comparison between the valuation exercised in this thesis and the one done by a well known Portuguese investment bank will be presented.

6.1. Valuation Methodology

To assess the value of Inapa two different valuation methods were used: the Adjusted Present Value (APV) and Multiples valuation. The first, as explained in the Literature Review, is a Discounted Cash-Flow (DCF) based method, while the latter involves relative valuation.

The current delicate financial situation of the company - its highly leveraged balance sheet - makes it more reasonable to perform its valuation through the APV method. As previously explained in the Literature Review, the APV approach allows separating the effects of debt financing from the value of the company business assets. Unlike other DCF methods that incorporate the effects of debt on the discount rate, this model begins by computing the value of the company in a no debt scenario, adding later the effects related with debt financing.

Therefore, the APV model is the one that will allow for a better understanding of the possible effects of changes in debt or interest rates on the overall value of Inapa.

Moreover, a relative valuation was also put into practice. It is an easy and commonly used methodology to value a company, using multiples and comparing those multiples with similar companies on the market, a necessary validation tool. Despite being a practical and widely used valuation method, in the case of Inapa, due to significant differences between the company and its peer group, this type of assessment ends up being not very relevant.

6.2. Explicit Period

The explicit period is a subject with an endless discussion among several authors. There is no agreement on what is the right explicit period to evaluate a company. While some authors argue that the widest the period the better the valuation, defending 10 or 15 years forecasts, others state exactly the opposite, arguing the use of a shorter period as the better technique. If anticipating just a year is quite difficult and the results often differ from reality, the more years we add to the prediction, the less accurate the forecast will be. That being said, the explicit period chosen for Inapa's valuation was 5 years. The next five years will be crucial to the company since it will reflect its ability to improve the financial situation and give guarantees to the market of its sustainability. Moreover, it is also the explicit period used by both investment banks that follow the company.

6.3. Valuation Assumptions

In the following sub-sections I will explain all the assumptions made in Inapa's valuation, illustrating the results of the main headings in the financial statements.

6.3.1. Sales Revenues

The sales revenues line is one of the most important lines in Inapa's valuation model, a true statement for the majority of companies. It is the most significant value of all financial statements and one that many other items depend upon. Therefore a very detailed analysis, within the limits of available information, was conducted.

Inapa's sales depend on several key variables: the volume of the paper market and Inapa´s share of it in the countries where the company operates, paper price and the growth of the company's complementary businesses. In 2010, according to the company's annual report, paper distribution accounted for 93% of total sales while the remaining 7% were related to complementary business. The forecast of these values will now be explained in greater detail.

Before explaining individually each of these variables it is important to point out that in what regards paper distribution the forecast of both volume and revenues was analyzed for each individual country where Inapa is present. Although Germany and France account for nearly 80% of total sales revenues, given the information available and mainly to the contrasting situation many of the European countries face, with some in development and others in recession, it was found necessary to do this analysis on a country by country basis.

However, due to the lack of information available, the complementary businesses analysis is only analyzed by segment, therefore, with less detail.

INAPA Sales Revenues Forecast (millions €)	2011	2012	2013	2014	2015
Paper Distribution	963	984	1002	1020	1037
Packaging	39	44	48	52	55
Visual Communication	31	35	39	43	47
Other Businness in Paper	14	16	19	21	23
Total Sales Revenues	**1046**	**1079**	**1108**	**1137**	**1161**

6.3.2. Volume

Volume represents the total value of paper sold or "distributed" by the company expressed in tons. As stated before, this variable was estimated on an individual country basis.

Recalling what has been explained in the business areas section on the company's profile chapter, Inapa distributes three main types of paper: coated wood free paper (CWF), uncoated wood free paper (UWP) and office paper. Despite each type of paper having its own particular drivers, throughout the years companies in the paper industry have realized that there is a great correlation between the economic growth of a country and the amount of paper sold. Therefore, GDP growth has been used as a "rule of thumb" when forecasting paper

consumption. Since paper consumption is directly related with paper distribution, the same growth assumption was assumed.

Based on total paper distribution amounts recorded in 2010 (source: EUGROPA), and GDP growth estimates (source: IMF, World Economic Outlook (October 2010)), the total volume of paper distributed in each of the countries where Inapa operates was forecast. After computing total volume by country, a perspective on Inapa's market share evolution by country was needed. The high levels of concentration and the stagnation of the distribution paper market, together with the fact that Inapa does not expect to make further acquisitions, lead the company and its competitors to believe that market shares will not change significantly. Therefore they were assumed to remain constant.

INAPA Market Share Projection (by country)	2009	2010	2011
Germany	18%	17%	17%
France	22%	22%	22%
Portugal	54%	51%	51%
Switzerland	18%	17%	17%
Spain	10%	16%	21%
Others	n.a	n.a	n.a

Still, a short note to the increase of the Spanish market share related with the recent acquisition of EBIX. Although it was purchased in 2010, Inapa will only incorporate the full effect of this acquisition in 2011. Moreover, since there is not so much information on the "others" countries, which include Belgium, Luxemburg and Angola, and given their low relevance its volume was calculated by subtracting the information available on the remaining countries to the total distribution sales value officially recorded by the company in 2010. In addition, it was assumed that "others" will evolve accordingly to Belgium's GDP since it is the most representative country between the two.

INAPA Distribution Sales Projection (million tons)	2010	2011	2012	2013	2014	2015
Germany	509	519	530	539	548	556
France	199	203	206	210	215	219
Portugal	56	56	57	57	58	59
Switzerland	57	58	59	60	61	62
Spain	68	94	95	97	99	101
Others	25	25	26	26	27	27
Total Distribution Sales	**914**	**955**	**972**	**990**	**1008**	**1024**

6.3.3. Price

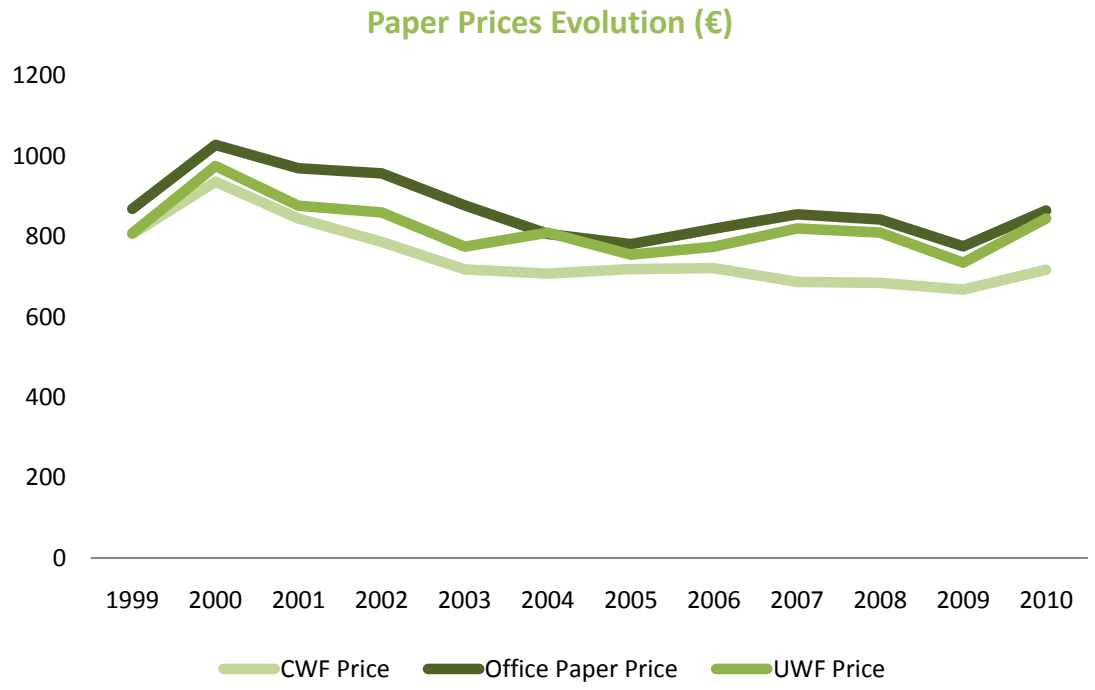
When speaking about price in the paper business, it refers to an average price of all types of paper sold by Inapa.

As explain earlier, Inapa distributes different type of papers, being the majority related to CWF, UWF and office paper. Moreover, Inapa practices two different types of sales: stock sales and indent sales. Each of these different types of papers and sales has its own price and margin. However, since information is not public, it is not possible to do price discrimination in detail. Therefore and following the company's methodology, the price used is an average price accounting for all these segments.

The prices charged by Inapa differ from country to country but their evolution trend does not. That means if there is a price increase in Spain this increase will also happen in Germany, irrespective of the average price being lower in Spain. When prices rise, all countries will be similarly affected. Therefore, as the variations are similar in all countries, not having the discriminated price information on a country basis will not affect Inapa's valuation. Applying the forecasted growth rates over the total average price will give a trusted valuation. Paper is a commodity with prices differences explained by different logistics setups by country.

In 2010, the selling price of paper recorded a growing trend throughout the year. The first quarter was marked by low prices, reflecting the decline occurred during the second half of 2009. Thereafter, began a correction in the price level, with the producers inflicting successive gradual increases. Despite this correction, in 2010, the average price of paper was 1.005€, an increase of only 4€ compared to the previous year. According to the company, those increases only allowed a partial recovery of the decline verified up to mid 2005, which may predict the

possibility of maintaining this trend in the near future. This situation was considered in the price forecast. It was assumed that the price will gradually increase in the next two years and thereafter remain constant. While in 2011 it was assumed the same increase as in 2010 (0,40%), in 2012 a more conservative augment of 0,30% was assumed.



The variable that most influences paper price is the price of pulp. The pulp is the main raw material for paper production and therefore has a major impact on its final price. The price of pulp is very volatile and subject to large cyclicality, which causes the price of paper to be cyclical as well. Nevertheless, Inapa is able to counter that effect on their results by keeping their margins level regardless of the price of paper.

Within the pulp business, there are other threats that can cause fluctuations in the pulp price and consequently on the price of paper. First, much of the pulp production is made in Latin America. In these countries, production cycles are shorter which makes the business more economic. On the other hand, this situation turns the price of pulp and paper vulnerable to the constant natural catastrophes that have been happening in these countries (e.g. the earthquake in Chile or the floods in Brazil). At such times, the price of pulp increases significantly affecting not only the paper producers but also the paper distributers like Inapa. Furthermore, there is a threat coming from China. China imports pulp from the U.S. and EU to

produce paper and export it. The high volumes of pulp imported together with the fact that China is increasingly selling and exporting higher volumes of paper, puts a lot of pressure on prices and represents a big threat to paper producers and distributors around the world. Nonetheless, according to company managers, the European Union has already started to implement some measures that limit China's actions, protecting the European paper merchants.

6.3.4. Complementary Businesses

The complementary businesses play a very important role in the company's total revenues evolution, primarily due to their expectations of strong growth and their higher margins.

With growth rates and margins much higher than the paper, the complementary businesses will allow Inapa to gradually increase its gross margin, as they will further increase their weight/contribution compared to the paper business. According to the forecasts, in the end of the explicit period, complementary business should represent almost 11% of total sales revenues.

Total Revenues Weight	2010	2011	2012	2013	2014	2015
Paper Distribution	92,9%	92,1%	91,2%	90,4%	89,8%	89,2%
Packaging	3,4%	3,7%	4,1%	4,3%	4,6%	4,7%
Visual Communication	2,6%	2,9%	3,3%	3,6%	3,8%	4,0%
Complementary business in paper	1,1%	1,3%	1,5%	1,7%	1,9%	2,0%

In 2010, complementary business in paper (office supplies) was the one that grew more, with a growth rate of 31%. Visual Communication grew by 24% while the packaging business by 18%. According to the company these growth trends are expected to continue at least for the next five years, with growth rates gradually decreasing year after year.

With respect to the business of Visual Communication, one of the main drivers is the strong transition from offset to digital technology. This development will contribute to the growth of the whole industry since there will be a technological adjustment in the graphics industry. Moreover, there is an increasing use of all visual communication solutions, the majority related

with the growth of indoor advertising. Digital machines make profitable the production of much smaller volumes, allowing for customization and thus enlarging the market. With the old technology this was not possible, it was too costly. In addition, digital technology has increased the print quality to a level that can be used at close distances. The offset technology quality was not sufficient to allow that. In the years to come, the main driver of the visual communication business is the growth of indoor advertising.

On the other hand, the growth of the packaging business is related with the strong estimated growth for the industry as a whole. It is expected the packaging industry to grow significantly in the coming years. Furthermore, the relocation of production that have been done, imply a greater movement of goods. Consequently, there will be greater needs for delivery and protection of those goods, and the packaging market will increase. Finally, consumer packaging has also evolved considerably with the importance of the package when buying a particular product increasingly growing.

The complementary business in paper, which mainly concern office supplies, due to their paper nature are subject to the same drivers as the paper segment. Despite being linked to the paper market, this business has much higher growth rates. One of the main drivers is the increasing penetration of these products in Inapa's customer base. The company is strongly entering in this market in several countries, taking advantage of its paper market know how and leveraging its extensive customer base.

6.3.5. Cost of Sales

In general, cost of sales is usually related to revenues, being one of the most commonly used techniques to estimate the cost of sales as a percentage of revenues/sales. At first, this technique was applied and the results seemed quite consistent with a forecasted cost of sales representing more or less 82% of sales revenues. However, it was realized that by making such an assumption, the effects of the complementary business higher margins and growth rates were not being taken into account. As explain earlier, total revenues will gradually increase as the weight of the complementary businesses increases over paper. The higher the contribution of the complementary businesses on sales revenues, the higher Inapa's gross margin and the lower the costs of sales will be. By estimating the costs of sales as a fixed percentage of total sales revenues, this fact was not being considered. Therefore, first it was computed the gross

margin taking into account the growing weight of complementary business and afterwards, by difference with sales revenues, the cost of sales. Inapa's gross margin in 2010 was approximately 18,3%. It is a variable that has been stable, with an increase in recent years, mainly due to the complementary businesses growth. Therefore, the gross margin for the explicit period was forecasted taking into account the weight of each business in total sales revenues and each of the businesses own margins.

Expected Margins	2011	2012	2013	2014	2015
Paper	17,7%	17,7%	17,7%	17,7%	17,7%
Packaging	28,2%	28,2%	28,2%	28,2%	28,2%
Visual Com.	24,6%	24,6%	24,6%	24,6%	24,6%
Other business in Paper	23,1%	23,1%	23,1%	23,1%	23,1%
Gross Margin*	18,3%	18,4%	18,5%	18,5%	18,6%
Gross Margin	221	228	235	242	247
Cost of Sales	863	890	913	935	955

*before other income

The margins of each business were assumed to be equal to the margins recorder in 2010. According to the company and comparing to other companies within the same businesses segments, it is reasonable to assume that these margins will remain relatively constant over the next five years.

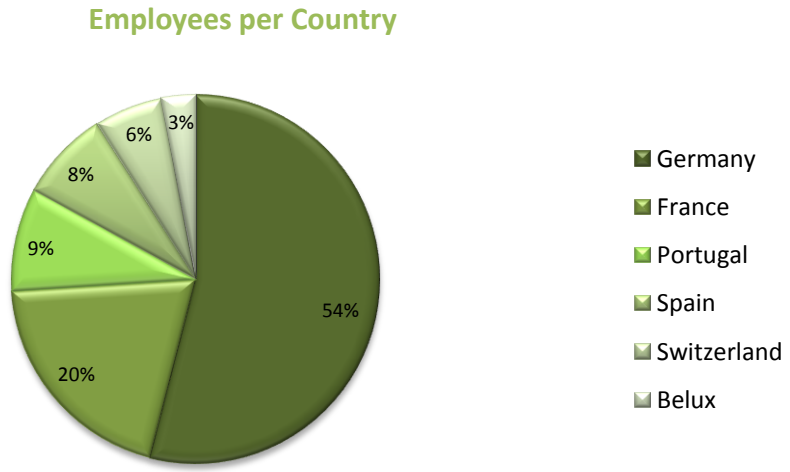
6.3.6. Operating Costs

Operating costs as the name suggests are the ones related to the execution of company's business. In the case of Inapa it involves personnel, administrative and other costs. These costs were projected in different ways and the underlined assumptions of each will now be separately explained.

6.3.6.1. Personnel Costs

These types of costs are related to the company employees and refer to salaries, social security contributions, pensions and other personnel costs. The company does not expect significant changes in its workforce and therefore, instead of headcount and the average employee cost, personnel costs were projected to the pace of inflation. Furthermore, it was

considered an average inflation between France and Germany, since these two countries account for nearly 75% of personnel costs.



Source: Inapa Annual Report 2010

6.3.6.2. Administrative Costs

Administrative costs encompass two different components: distribution costs (60%) and fixed costs (40%). Fixed costs were assumed to follow the inflation rate pace. Once more, the inflation was considered an average of Germany and France. On the other hand, closely related with the volumes sold by Inapa, which need to be distributed, distribution costs were projected taking into account not only German and French inflation but also the tonnage variation of Inapa, the evolution of the company's volume.

6.3.6.3. Other costs

Finally other costs, which refer to impairments and indirect taxes, were also modeled to the average inflation rate of Germany and France.

6.3.7. Investment Plan

In what regards the company's investment policy, the financial stabilization strategy that is being followed makes Inapa's investments to be very low. In fact, as in recent years, Inapa's capital expenditures in the upcoming years are estimated to be lower than the amortization level. In 2010, the investment was approximately €3,4M, after an expenditure of €5,4M in 2009. The discrepancy between the values of the two years is related to an investment made by the company in intangible assets, in 2009. More precisely, it relates to the installation of a software common to all affiliates, with the objective of reducing costs. Indeed, the desired cost reduction was verified in 2010.

Investment Plan (millions €)	2009	2010	2011	2012	2013	2014	2015
Capex	5,4	3,4	3,4	3,4	3,4	3,4	3,5
D&A	6,3	6,5	6,2	6,1	6,0	5,8	5,7

According to the company, after the software installation, no other significant investments are expected to happen. Regarding tangible assets and still in accordance with company strategy, no major investments are expected to take place in the following years. There is no warehouse or machinery acquisition planned. Therefore, both the investment of intangible and tangible assets are projected to remain quite constant, around an annual value of €3,4M.

Concerning the amortization plan, given no relevant increase in fixed assets and the long depreciation period typical of Inapa´s assets, we also considered a stable maintenance of asset depreciation.

6.3.8. Working Capital

The working capital account represents the necessary money a company needs to have available to fund its daily operations. It is a measure of operating liquidity and short-range financial health. The way to calculate working capital may vary depending on the analyst beliefs of what should be or not be included in the calculation. In broad terms, the working capital account equals the difference between current assets and current liabilities (excluding financial liabilities). Within this formula, there are different interpretations of which items

should be considered. In this valuation, it was considered the general formula. The table below shows witch items were included.

Current Assets	Current Liabilities
Accounts receivable	Accounts payable
Inventories	Other current liabilities
Taxes to be recovered	Taxes payable
Other current assets	

All of the above items were assumed to be sales driven accounts. Therefore, these accounts were projected as a percentage of the company's sales, based on their respective historical values. Determining these accounts as a percentage of sales is not precise science, but is generally used as a rule of thumb. The company expects in the future to improve its working capital management, particularly over three specific situations. First the company thinks there is some space for improvement in accounts receivable. Spain, for example, has implemented a legislation aimed at reducing the number of receivables days. Under this legislation, a fine will be applied to the customers that pay late. Therefore, clients will have an incentive to pay sooner, thus having a positive impact on company's working capital. Second, inventories which, particularly in 2011, will tend to decrease. According to the company, some countries still have extraordinary amounts of goods in stock. This situation is expected to be rectified in the coming years, namely 2011. Finally, accounts payable should not increase, remaining at historical values. Inapa pays in the short term to take advantage of discounts for prompt payment, a situation that is expected to continue over the coming years.

Working Capital (millions €)	2011	2012	2013	2014	2015
Operating WC	220	228	236	243	249
Changes Operating WC	2	(8)	(7)	(7)	(6)

6.3.9. Taxes

The accounts related to taxes were the most controversial and difficult to calculate. Hence, the assumptions applied may not be ideal, but were the possible ones given both the complexity of the topic and the information available

The complexity of this issue is mainly related to the fact that Inapa operates in several countries, thus paying taxes, accruing taxes and computing tax shelters in each one. In what regards taxes, each country has its own tax policies and an account considered in a country may not be considered in another. This situation makes it very difficult to compute the actual taxes of the company. Moreover, this issue is further complicated in countries like Germany and Switzerland, where tax policies differ across the various states/cantons. Another setback, since the valuation is based on consolidated results, concerns the fact of Inapa having positive results in some countries where it operates and negative in others. Although this situation still occurred in 2010, the company predicts that by 2011 all its subsidiaries will have positive results. This assumption was assumed for the forecasted years and therefore this problem was not considered.

Since taxes payable and recoverable were already addressed in the previous section, both predicted as a percentage of sales, the assumptions to be explained here are related to the company's income and deferred taxes.

To overcome all the difficulties stated above, the company itself computes what it calls the "nominal weighted average rate of tax on profits". According to Inapa, this tax already contains the weighted effects of the different tax policies applied in each country. For that reason, and trying to be consistent with company policies, the same rate was applied. As a result, the forecasted income tax is 29,7%, an average of the values recorded in 2009 and 2010.

In what concerns deferred taxes, the assumptions made on the asset side differ from the ones applied on the liability side. The liabilities for deferred taxes are composed mainly by amortizations and revaluations of fixed assets. Whereas the last one was assumed to be constant, deferred taxes on amortizations were projected based on the historical percentage of amortization level over total fixed assets. On the assets side, deferred taxes include allocation for taxes, others and reportable losses. While the first two where assumed to remain constant, reportable losses were significantly more delicate to predict. Inapa has reportable losses in most of the countries where it operates. Each of the countries has different allowance periods for those losses. For example, Inapa Suisse can only report until 2011 while in Inapa France this period is infinite. It was assumed that the company will respect these utilization periods, computing therefore reportable losses evolution by dividing each country amount by the number of years remaining until expiration and, in the countries where

this period is unlimited, considering the explicit period as the maximum period of recovery. In the case of Inapa Spain, where the final utilization date is due in 2018-2023, the value was not changed.

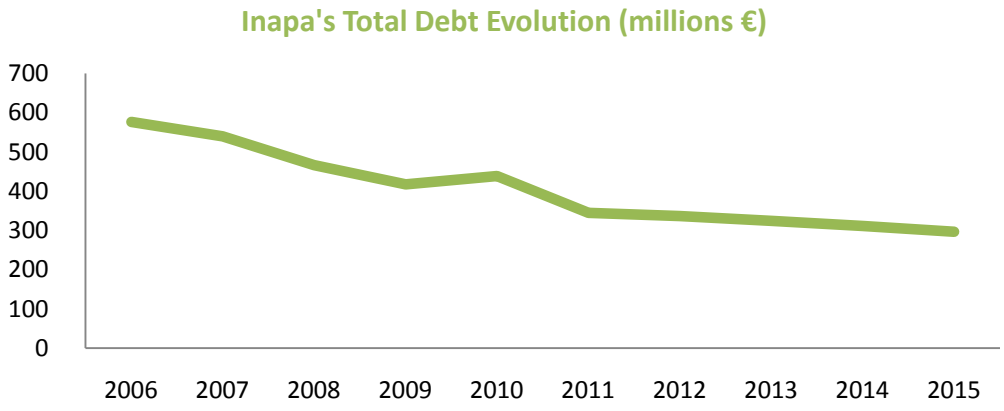
The table below summarizes the projections made.

Taxes (millions €)	2011	2012	2013	2014	2015
EBT	14	19	21	22	24
Current Taxes	(4)	(6)	(6)	(7)	(7)
Deferred Taxes	1	1	2	2	2
Total	**(3)**	**(5)**	**(4)**	**(5)**	**(5)**

6.3.10. Debt Analysis

Inapa´s prior strategy, growth through M&A has contributed to a boost in company size, but, on the other hand, led to the alarming debt situation the company is facing today.

In accordance with current company policy, it was assumed that the priority use for all available resources would be to reduce company's debt. This effort has been made in recent years and will continue in the future. The graphic below illustrates not only Inapa´s debt (book values) evolution over the last five years, but also the valuation projections over the explicit period.



This rigid "cut debt" policy was another reason for the use of APV valuation. In fact, besides allowing to separate the effect of debt on the company's value, APV method also permits to assume different D/EV ratios during the explicit period, making it adequate for situations where a reasonable evolution of the debt weight is forecasted. A gradual reduction on Inapa's D/EV ratio throughout the explicit period and a target terminal debt value ratio of 45% were assumed.

Long-term debt is expected to decrease according to its repayments schedule. In 2013, Inapa has a significant repayment to liquidate (€82M) and it might have to resort to additional loans to repay it. A possible solution will be to renew some of these long term loans. Despite being a reasonable solution, it involves a renegotiation difficult to predict even by the company. Short term debt change was used to balance out the repayments. Short term debt at the same time is decreasing with generated cash flows.

Debt Summary (millions €)	2008	2009	2010	2011	2012	2013	2014	2015
Short-term Debt*	230	321	250	165	167	238	234	229
Long-term Debt*	251	109	201	180	169	87	77	67
Total Debt	**481**	**430**	**451**	**345**	**336**	**324**	**311**	**296**
Cash & Equivalents	5	8	17	17	17	17	17	17
Net Debt	**476**	**422**	**434**	**328**	**320**	**308**	**294**	**279**
Repayments	0	0	11	11	11	82	10	10
Net Financial Expenses	32	19	17	21	20	21	21	21

*Including financing associated to financial assets (securitization) and Financial Leases

While short-term debt is generally considered to be at market value, long-term debt has usually to be adjusted. In the end of 2010, long-term debt was at €190M. In February of 2011, the company renewed a large portion of this amount (€133M) with different banks. Despite having been requested, Inapa did not dwell on interest rate for the renewal, simply replying that it stood close to historical values. Given this information and due to the nonsense of valuing a recently renewed debt below what was stipulated, the long-term debt was also considered to be in equilibrium. Therefore, debt book values were considered to be the best approximate to debt at market values. The investment banks that follow the company also take the same assumption.

In addition, and despite considering Inapa's debt to be in equilibrium, a theoretical cost of debt was computed. This estimation was neither easy nor obvious to define. As explained in the Literature Review, the theoretical cost of debt is normally computed taking into account the rating of a company. Following Damoradan's framework, the theoretical cost of debt (Rd) would be higher than the real cost of debt (i). Against this background, it was necessary to seek data that could explain this situation. For example, the fact that the Portuguese State and the BCP bank are two of Inapa's largest shareholders can provide greater security and credibility to the company, allowing it to raise funds at a cost lower than it theoretically should. Again, this is just a hypothesis for the reason behind this issue. Nevertheless, considering debt to be in equilibrium, the theoretical cost of debt was assumed to equal the real cost of debt. The last one was computed by adding the forecasted 3-month Euribor rates to an average spread of Inapa's historical spread values. Net debt is calculated by deducting cash and cash equivalents.

Finally, a shot note to explain that, in balance sheet terms, financial leases were considered in the "other liabilities" account.

6.3.11. Capital Increase

After its approval at the general meeting on April 10 of 2011, Inapa is to conduct a capital increase of €75M. According to the company, this amount will totally be used to amortize debt. Despite having been approved, the capital increase has not yet been done and there is still little information on it. What is known is that the capital increase will be done through preferred shares, with an associated dividend equivalent to 5% of the capital increase (€3,75M). The dividend payment it's expected to start in the end of 2012. This situation will consequently change the "no dividend" policy that the company was following. However, this dividend respects only to the new subordinated shares. After the capital increase, the company will have two types of shares: ordinary shares and subordinated shares. This situation might change Inapa's shareholder structure. Nonetheless, since there is no further information about this situation and, at this point, the capital increase has not yet been performed, these possible changes were not taken into account.

This capital increase is an intelligent way for Inapa to reduce its debt, using a lower cost financial instrument in times of interest rate and risk premiums highs.

6.3.12. Additional Items

Some accounts, both by its irrelevance according to company managers and because of the difficulty in their forecast, were assumed to be equal to zero on the projections made. This group of items encompasses the accounts for discontinued business assets/liabilities, gains/ losses of associates, impairment in noncurrent assets, treasury shares and financing associated to financial assets.

On the other hand, also because of their hard estimation and little value change in recent years, a number of accounts were assumed to remain constant during the explicit period, namely goodwill, investments in associates and financial assets available for sale.

Goodwill variations derive from differences between acquisition value and fair value of assets and liabilities. According to the company the significant effects of these revaluations were already considered in the past years, so no significant changes are expected. Therefore and also because no more acquisitions are projected, goodwill was assumed to remain steady.

Investments in associates are expected to remain constant since the company's priority is to reduce debt.

Financial assets available for sale will also continue even. This account is related with funds that are held by the company. Most of them have been liquidated in order to amortize debt. The current ones the company needs to keep for "contractual" reasons, mainly linked with loans guarantees.

The remaining items that are assumed to be unchangeable during the explicit period are other noncurrent assets/liabilities, share issue premiums, reserves provisions and minority interests. In what regards the last account, despite the increase in the capital structure, as explained above, no changes were considered in the company's ownership structure.

In employee benefit obligations, an account mainly related to pension funds, the company does not expect a significant variation. There might be a possible reduction in headcount, but not significant. It was assumed that this account will vary with the German and French inflation rate (countries representing almost 80% of the workforce).

The retained earnings account was assumed to evolve accordingly with the net income value. Following its policy, all income generated will be used by Inapa to reduce the company's debt. Hence, the net income of the current year will be added to the retained earnings of the previous year, while deducting dividends.

Cash and Cash equivalents was used to level all balance sheet accounts, ensuring Total Assets equals Total shareholder's equity and Liabilities. The resulting value presents a stable figure over the years, similar to the one in 2010.

6.4. Stock market Analysis

As explained earlier, in macroeconomic terms, the year of 2010 was marked by uncertainty in the evolution of European economies, the crisis in the financial sector and fears about the unbalance of public accounts in several countries.

The Portuguese stock market was one of the most affected by this macroeconomic context, with the PSI-20 index, the main Portuguese index, recording a contraction of 11%. On the other hand, the volumes traded increased by 29% compared to 2009. During 2010, Inapa's share price fell by 41%, from €0,64 to €0,375.

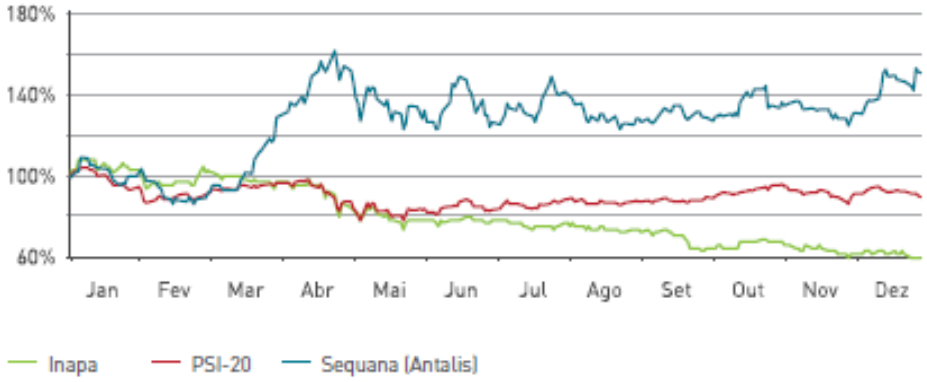
Inapa's Share Price Performance (2010)

1. Presentation of 2009 annual results
2. Announcement of the intent to acquire EBIX
3. First trimester results
4. Annual general meeting
5. Acquisition of EBIX
6. First semester results
7. Third trimester results

Source: Inapa Annual Report 2010

Despite the improvements on its results, the company's stock performance was penalized not only by the PSI-20 conjuncture, but also (and still) due to its high debt levels. In fact, the high leverage situation is easily observable in the following graph.

Inapa vs. PSI-20 vs. Sequana Stock Price Performance



Source: Inapa Annual Report 2010

Even when the Portuguese stock market increases, the debt effects do not allow Inapa's stocks to follow the index trend. Moreover, when compared to an analogous company (Sequana SA), it is possible to notice that the company's stocks did not follow the sector trend as well.

6.5. APV Valuation

Having explained all the assumptions used in Inapa's valuation, this section will approach the core valuation. As explained earlier, the Adjusted Present Value was considered to be the most suitable method to value Inapa. Therefore, in the following subsections each of APV's necessary calculations will be individually explained.

6.5.1. Unlevered Firm Value

The first thing to do when computing the unlevered firm value is to calculate its FCFF. Having in mind the assumptions previously explained, Inapa's annual FCFF projections are presented in the following table.

Unlevered Firm Value	2011	2012	2013	2014	2015	Cruise Year
Total Income	1.084	1.118	1.148	1.177	1.203	1.223
COGS	863	890	913	935	955	971
Other Operational Costs	180	184	188	192	197	201
EBITDA	41	44	47	49	50	51
D&A	6	6	6	6	6	6
EBIT	34	38	41	44	45	45
Taxes on EBIT	10	11	12	13	13	13
Change in Deffered Taxes	1	1	2	2	2	0
NOPLAT	25	28	31	32	33	32
D&A	6	6	6	6	6	6
Operational Cash Flow	32	34	37	38	39	37
Capex	3	3	3	3	3	6
Net W.C.	2	(8)	(7)	(7)	(6)	(6)
FCFF	30	23	26	28	29	26
PV Cash Flows	28	20	21	21	21	501

Σ PV Cash Flows	112
PV Terminal Value	338
Unlevered Firm Value	**450**

It is important to mention that the terminal value was computed using an estimated one-year cruise, meaning, what is predicted to be a normal year for the company in the future. Looking at the table it is possible to notice that most of the variables have a very stable pattern. One exception made was that depreciations and amortizations will equal capital expenditures. Moreover, variations on differed taxes were assumed to be zero since this effect is not supposed to last forever and is quite unpredictable. The remaining changeable items evolve accordingly to their respective assumptions already explained.

After computing the FCFF of the company it is necessary to discount them back to their present value. The discount rate used to do so is the unlevered cost of equity, which was calculated through the CAPM formula. The CAMP formula implies an unlevered beta, a market risk premium and a risk-free rate.

The unlevered beta was computed by deleveraging the levered beta of the company. According to Reuters and Damodaran, the levered beta that best reflects Inapa's riskiness, at the company's target capital structure, is 1.12. Therefore, by applying the beta formula, presented in the Literature Review, it was computed an unlevered beta of 0,71. Since it

represents the unlevered beta at the target capital structure, this value was replicated to the explicit period years.

The levered beta value will depend on the debt to equity ratio assumed in each of the estimated years. Since the company's debt levels are assumed to change over the explicit period each year will have its respective levered beta. Again, these calculations respect the beta formula presented in the Literature Review.

A risk-free rate of 3,24% was assumed. This rate concerns the yield to maturity on 10-year German government bonds.

Finally, a 5% market risk premium rate was assumed. This rate was taken from Damodaran´s table on country risk premiums and regards France and Germany market risk premium, since together these countries account for nearly 80% of the company's turnover.

6.5.2. Value of Tax Shields

The second step of the APV method calculates the positive effect of debt on the firm's value. This effect corresponds to the value of tax shields, and it is computed by multiplying each year's debt level by the respective tax rate and cost of debt. In the terminal value it was assumed the same cost of debt as 2015. On the other hand, the tax rate is the same that was explained in the assumptions section, 29,7%. By computing a terminal value for the tax shields, it was assumed that the company will pay taxes forever and, consequently, benefit from this effect perpetually.

After computing the value of the tax benefit for each year it is necessary to discount those benefits to their present value. As discussed earlier in the Literature Review, there is no consensus among authors on which discount rate should be used. It was decided that tax shields would be discounted at the costs of debt, assuming that the tax benefits will share the same risk as debt.

Tax Shields	2011	2012	2013	2014	2015	TV
Cost of Debt	5,17%	6,80%	6,26%	6,64%	6,86%	6,86%
Tax Benefits	5	6	6	6	6	119
PV Tax Benefits	5	5	5	5	4	80

Σ PV Tax Benefits	24
PV Terminal Value	80
Value of Tax Benefits	**104**

6.5.3. Value of Bankruptcy Costs

If there were no negative effects on debt, any company would want to get the maximum debt obtainable in order to get the highest tax shields possible. Nonetheless and according to the capital structure trade-off theory, a company enjoys the benefits of debt until a certain point.

After reaching a certain debt level, the costs of bankruptcy will surpass the benefits from the tax shields and the company will have no further incentives to increase its debt. Therefore, the third and last element required to calculate by the APV method is the costs of financial distress, also known as bankruptcy costs.

In this specific valuation, the Damodaran's methodology was used to compute Inapa's bankruptcy costs. Accordingly, two variables are needed: the probability of default and the bankruptcy costs.

The probability of default will depend on the company's rating, which depends on the interest coverage ratio. The table above illustrates Damodaran's (2006) and Fuser's (2002) findings in this subject. Inapa fall´s into B- in 2011 and raises to B after the capital increase.

Interest Coverage Ratio	Rating Class	One Year PD (%)
12,5 < 100000	AAA	0,01
9,5 < 12,49999	AA	(0,02)
7,5 < 9,499999	A+	0,05
6 < 7,499999	A	0,08
4,5 < 5,99999	A-	0,11
4 < 4,499999	BBB	0,15 - 0,40
3,5 < 3,99999	BB+	0,65 - 1,95
3 < 3,499999	BB	3,20
2,5 < 2,99999	B+	7,00
2 < 2,499999	B	13,00
1,5 < 1,99999	B-	> 13

Source: Damodaran (2006) and Fuser (2002)

On the other hand, the bankruptcy costs were more difficult to calculate and there are still some doubts about the feasibility of the assumptions made. According to Damodaran (2006), studies have proved that bankruptcy costs usually range from 10-25% of a firm's unlevered value. On the other hand, Korteweg (2007) states that for the paper industry the total costs of financial distress should account for 15% of a firm's unlevered value. However, there is neither right nor wrong when estimating bankruptcy costs since they are very difficult to compute. For that reason, bankruptcy costs were assumed to be 15% in 2011 of the firm's unlevered value and 12% in the following years of the explicit period. Both authors' opinions were considered. Inapa is a mature company with stable cash flow and although it may belong to the paper industry, its business model processes bares less risk than the other businesses within this market. Taking all these facts into account, there is no reason for these costs to be higher, even considering the company's current leverage.

Additionally, it was assumed some relationship between bankruptcy costs and the company's rating. The company's rating is worst in 2011 and that is why bankruptcy costs are higher in that year. As in the tax shields calculation, the discount rate used to compute the present value of the bankruptcy costs was the cost of debt. To compute the terminal value of bankruptcy costs, it was assumed the same inputs as the last year of the explicit period. However, in this case, the terminal growth rate was not considered. Since the company is expected to reduce its debt level and become more stable, it makes no sense to increase these costs. Despite this issue, by computing a terminal value, it was assumed that the company will bare these costs forever.

Bankruptcy Costs	2011	2012	2013	2014	2015	TV
Unlevered Firm Value	450	450	458	463	467	501
Interest Coverage Ratio	1,98	2,25	2,28	2,34	2,42	2,42
Rating	B-	B	B	B	B	B
Probability of Default	13%	7%	7%	7%	7%	7%
Bankruptcy Cost (% of Vu)	15%	12%	12%	12%	12%	12%
Expected Bankruptcy Costs	9	4	4	4	4	57
PV Bankruptcy Costs	8	3	3	3	3	38

Σ PV Bankruptcy Costs	21
PV Terminal Value	38
Expected Bankruptcy Costs	**59**

6.5.4. Small Cap Discount

One of the issues that need to be discussed is the application of a small cap discount. Due to the fact that there is almost no literature on this subject, it was not addressed in the Literature Review. This discount is more of an adjustment made by banks and investors to the extent that small caps do not have the same liquidity or do not generate the same level of interest as larger capitalizations. This is cohesive with reality. At the end of a company valuation, a value is computed according to a set of assumptions that will include errors. Even if most of the assumptions are right, the calculated value for the company is rarely equal to market value. It is impossible to equate all aspects. Investor expectations / mood for example, either bullish or bearish, are not built into the models. In small capitalizations this is even truer, since investors tend to bypass titles that do not have the desired level of liquidity. Trading shares of low liquidity company is harder, because there will be fewer people available to buy these securities. Consequently, one will have to sell these shares at a lower price than it would if the title had more liquidity. It is a discretionary adjustment. There is no literature that says it should be 10%, 15% or 20%. While *Caixa BI* suggests a 20% discount, *BPI* applies a 10% discount. This thesis assumption was an average of these two points of view, meaning a 15% small cap discount.

6.5.5. Value per Share

Once computed the three components required for an APV valuation, Inapa's final value was reached. To do so, and as explained in the Literature Review, the value of tax savings was added to the unlevered value of the firm and the expected bankruptcy costs subtracted afterwards.

After calculating the total value of the company, some adjustments have to be done to get to the company's equity value that will allow, dividing it by the total number of shares, to reach Inapa value per share. These adjustments are related to the need of withdrawing all non-equity claims form the firm's value. In Inapa's case, in a situation before the capital increase, these claims respect to net debt market value (Debt-Cash and Equivalents) and minority interests. If the capital increase is considered, since it respects to other type of shares (subordinated shares), it is also necessary to subtract its value to the equity market value.

These two situations were considered since, although Inapa has already approved the capital increase, at this point it is still to be done. Nevertheless, due to the capital increase characteristics, Inapa's ordinary share price will be the same in both circumstances.

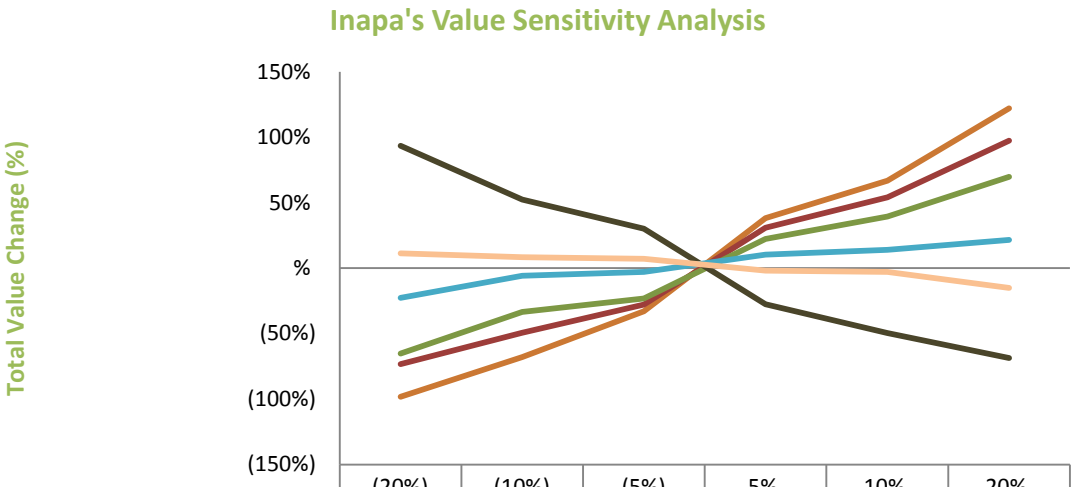
Taking all these considerations into account, the value per share of Inapa was calculated by first, dividing its total value by the number of ordinary shares, which is 150.000.000, and second by applying the 15% small cap discount.

Inapa's final share price is therefore 0,34€.

By looking at the current market price of company's securities, which have been trade around 0,31€/share, the achieved price represents an appreciation of nearly 10%. These results suggest that Inapa is presently undervalued and, under normal circumstances, should be translated into a Hold/Buy recommendation.

6.6. Sensitivity Analysis

Throughout the whole valuation analysis, several set of assumptions were considered to forecast Inapa's figures. Despite being considered the most appropriate ones, uncertainty is always present and the only thing that is certain about forecasts is that they will probably be wrong. Furthermore, the current macroeconomic situation together with the great uncertainty felt in today's volatile markets also contributes to the unpredictability of future prospects. Hence, some of the assumptions made may not happen in the future. Therefore, in order to test the robustness of the valuation and consider other possible scenarios, a sensibility analysis was performed. To execute this analysis, it was necessary to choose a set of key drivers, allowing them to vary downwards and upwards, and perceiving its impact on the total final value of the company. The following graphic summarizes the results obtained.



	(20%)	(10%)	(5%)	5%	10%	20%
Gross Margin	(98%)	(68%)	(33%)	38%	67%	122%
Paper Market Price	(73%)	(49%)	(28%)	31%	54%	97%
Paper Market volume	(65%)	(33%)	(23%)	22%	39%	70%
Operating Costs	94%	52%	30%	(28%)	(50%)	(69%)
Complementary Revenues	(23%)	(6%)	(3%)	10%	14%	22%
Interest Rate	11%	8%	7%	(2%)	(3%)	(15%)

Looking at the graphic it is easy to notice that, as previously explained, the variables with greatest impact on Inapa's value are gross margin, evolution of market volume and paper prices. These three are directly linked to the company's gross profits and, therefore, their impact on Inapa's value was predictable. Also interesting is the significant impact from changes in operating costs. This suggests that the company should be particularly careful with its staffing levels and should consider further cost reduction projects. Complementary business revenues changes, on the other hand, still have little effect on the company's final value, proportional to their weight on Inapa's turnover. One should nevertheless remember that these businesses have high growth potential as well as a positive effect on gross margin. Interest rates changes have a lower effect on company value. Yet, in today´s market environment, their value is subject to high volatility.

Given this unsteadiness, given Inapa´s high debt level and given their correlation with market perception on Inapa's stock risk, a drill down analysis on the impact of interest rates changes on company stock value was performed, using the small cap discount variation as a "market risk perception" indicator. Results are shown on the following table.

Small cap discount/ Interest rate	(20,0%)	(10,0%)	(5,0%)	,00%	5,00%	10,00%	20,00%
20,00%	0,61	0,54	0,50	0,32	0,26	0,25	(0,08)
15,00%	0,64	0,57	0,53	0,34	0,27	0,26	(0,08)
10,00%	0,68	0,61	0,57	0,36	0,29	0,28	(0,09)
5,00%	0,72	0,64	0,60	0,38	0,30	0,29	(0,09)
,00%	0,76	0,68	0,63	0,40	0,32	0,31	(0,10)

It illustrates the notion that Inapa´s stock will crash under a high interest rate scenario. Although the company unlevered value is unaffected, this rise in interest rates causes the company rating to deteriorate, stirring a jump in bankruptcy costs and leading to an overall devaluation.

6.7. Relative Valuation

Relative valuation is a type of company valuation that is based on the comparison between multiple values of companies that are considered to be similar or share comparable characteristics. Recalling Damodaran (2006), in relative valuation "an asset value is estimated taking into consideration how similar assets are priced in the market".

The popularity of this valuation method relates to the ease of implementation, as well as the rapid interpretation of its results. A simple observation of a few multiples can be enough to get a general picture of a company's situation.

As explained in the Literature Review, the first thing to do when applying multiple valuation is to define the peer group. This step represents also one of the main challenges when considering this type of valuation. Choosing which companies should be included as comparables is neither an easy nor obvious task. This issue was experienced while trying to find Inapa's peer group. Indeed, after a careful analysis of the paper market, it was acknowledged that Inapa and PaperlinX Limited were the only publicly-traded companies whose business is purely paper distribution. Therefore and in order to perform a relative valuation, it was necessary to extend the search patterns to include a new company which could turn the comparisons more reliable. At the end, Sequana SA was chosen. Besides distributing paper, Sequana SA is also a paper producer. However, this company was the best proxy to add to Inapa's peer group.

PaperlinX Limited is an Australian based paper distribution company, former manufacturer since 2009, operating in 26 countries. Sequana SA, is a French company based in Paris with operations in France, the UK, Italy and the US. The company has two core businesses: paper production and distribution of paper and packaging products.

	Sales (M)	EBITDA (M)	EBIT (M)	Net Debt (M)	Market Cap (M)	Enterprise Value (M)	ROCE
Inapa	980	32	26	434	56	490	11%
Sequana	4333	224	148	674	577	1281	14%
Paperlinx	3225	11	-5	113	71	436	n.a

The table above provides important information about each of the companies. By looking at these values it is possible to realize that companies are very different from each other either in size, turnover or capital structure. Hence, despite representing the best comparable companies, these significant disparities undermine the feasibility of relative valuation analysis.

Nevertheless, a multiple analysis was applied using the multiples referred in the Literature Review. The following table summarizes the results obtained. It is important to mention that all values came from Reuters Knowledge and the respective companies' annual reports. Moreover, they are all in Euro (€) currency and report to 31/12/2010.

	Price (€)	EPS	P/E	P/B	EV/Sales	EV/EBITDA	Net Debt/EBITDA
Inapa	0,4	0,03	12,7	0,4	0,5	15,2	13,4
Sequana	11,7	0,64	18,2	0,8	0,3	5,7	3,0
Paperlinx	0,1*	-0,25	-0,5	0,2	0,1	38,9	10,1

*1 Euro = 1.3574893 Australian dollars

Once again, these figures illustrate the weak similarity between the companies, given consistency to the fact that, despite being a widely used method, relative valuation is not a good proxy and is not the most appropriate methodology to value a company like Inapa.

6.8. Comparison with an Investment Bank

A comparison between this thesis valuation and a valuation from a Portuguese investment bank is required. There are two investments banks that analyze Inapa: *Caixa Geral de Depósitos,* through *Caixa BI*, and *BPI (Banco Português de Investimento)*.

The investment bank chosen was *BPI*, since its research of Inapa is significantly more recent than the one made by *Caixa BI* (January 2011 Vs. September 2010) and also because the bank showed openness to provide information and discuss the different points of view.

The table above summarizes the main inputs of each one of the valuations.

Valuation Inputs	Master Thesis	BPI
Methodology	APV	FCFF (WACC)
Price Target (€)	0,34	0,38
Small Cap Discount	15,00%	10,00%
Risk-free Rate	3,24%	3,6%
Market Risk Premium	5,00%	6,00%
Unlevered Beta	0,71	-
Levered Beta	1,12	1,12
Cost of Debt	6,36%	5,6%
Target [D/(D+E)]	45,00%	40,00%
Tax Rate	29,70%	30%
Growth Rate	1,69%	2%

Results are similar. The main divergence to be noticed is that each one of the valuations uses a different valuation model. Despite being both discounted cash flow models, while Caixa BI uses the FCFF (WACC), this thesis utilizes the APV approach. Although already discussed in the Literature Review, it is important to point out again the models main differences, which are mainly related with the way to deal with debt effects. On one hand, the APV model separates the operational cash flows from the debt cash flows, discounting them at the respective and most appropriate discount rates. On the other hand, the FCFF (WACC) treats the company as a whole and, therefore, its cash flows are discounted at the WACC rate, which weightily incorporates the leverage effects.

Nevertheless, and again as explained in the Literature Review, both models represent a variation of DCF methodologies and are thus equivalent. Hence, this difference depends only

on a personal point of view about which is the most appropriate model to use, given the company's characteristics, having no direct implications in the valuation. At the end, theoretically and under the same assumptions, both methods should obtain the same value.

This thesis assumptions were already extensible explain and, therefore, there is no need for being repetitive. The assumptions made in *BPI* analysis follow the bank's policies and frameworks which are not public and were not revealed. However, by looking at the above table, it is easy to notice that most of the assumptions made on both analyses are quite similar and close to each other, depending most of the small differences in analyst opinions.

Concluding, the difference between the two analyses ends up being not very significant. This thesis valuation used a slightly more conservative approach in its assumptions which can partly explain the lower value. Furthermore, BPI's research dates back to January of 2011 which may imply that its price may not continue to reflect the real bank forecasts.

7. Conclusion

The purpose of this Master Thesis was to value Inapa, a top European paper merchant and one of the most internationalized Portuguese companies. By combining academic theory with best valuation practices, the APV method was chosen. According to Inapa's high leveraged characteristics, this methodology was perceived to be most suitable to value the company.

Throughout the valuation an extensive knowledge about Inapa was acquired, which led to several findings and recommendations. First, the company's strategy for the upcoming years is to continue its debt reduction plan. The approved €75M capital increase represents an important step in that effort, allowing for a major debt amortization. Despite its operational performance improvements, Inapa's stock price has been recurrently hampered, not only by the economic conjuncture but also due to its high leverage. Inapa should try to renegotiate a new long term agreement or renew the exiting one, in order to reduce its short-term debt. If it does not, the company will have, especially in 2013, a huge pressure on liquidity. Hedging against int--erest rate volatility should also be prosecuted. Moreover, shareholders should be prepared to forward a new capital increase in case interest rate increase significantly.

Additionally, according to the sensitivity analysis, the main drivers of the company's value are gross margin, market volume and paper prices. Inapa should continue to pursue a concentration strategy in the mature paper market, while investing in its complementary businesses that, with higher margins, will improve the company's sustainability.

Moreover, with nearly 80% of its total turnover coming from countries with high growth prospects (Germany and France) the fact that Inapa is listed on a country in recession (Portugal) with frail growth prospects, may contribute to undervalue the company. Inapa could benefit from being listed in the German or French stock market and could even consider reallocating its headquarters. This hypothesis is neither easy to undertake nor has certain results, but may valorize the company and should be subject to further research.

Finally, the valuation resulted in a price target of 0,34€/share. This value was matched against *BPI* analysis and is typically translated in a Hold/Buy recommendation. Nevertheless, considering the high volatility risk and the low potential for additional returns, a recommendation of Hold seems to be more appropriate.

8. Bibliography

8.1. Academic Articles

Bruner R., Eades K., Harris R., Higgins R. (1988) "Best Practices in Estimating the Cost of Capital: Survey and Synthesis", pp. 13-28.

Cooper, I., and Nyborg, K. (2006), The value of tax shields IS equal to the present value of tax shields*, Journal of Finance and Economics*, Vol. 40, No.2.

Damodaran, A. (2006) "Valuation Approaches and Metrics: A Survey on the Theory and Evidence", Stern School of Business, pp. 1–77.

Damodaran, A. (2007) "Return on Capital (ROC), Return on Invested Capital (ROIC) and Return on Equity (ROE): Measurement and Implications", Stern School of Business, pp. 1–69.

Damodaran, A. (2008) What is the Risk-free Rate? A Search for the Basic Building Block. Stern School of Business, pp.1-33

Damodaran, A. (2010) "Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2010 Edition, Stern School of Business, pp.1-89

Fernández P. (2007) "Company valuation methods. The most common errors in valuations", IESE Business School, pp. 1-27.

Fernández P. (2008) "Equivalence of Ten Different Methods for Valuing Companies by Cash Flow Discounting", IESE Business School, pp. 1-25.

Fernández P. (2008) "Levered and Unlevered Beta", 2nd version, IESE Business School.

Fletcher, H., and Ulrich, T. (2002) "The melting of financial and valuation analysis: an application", *Journal of Finance and Accountancy*, pp. 1-12.

Froot, K.A. and Kester, W.C. (1995) Cross-Border Valuation, *Harvard Business School Note* 295-100, pp.1-21

Goedhart, M.H., Koller, T., and Wessels, D. (November 15, 2005) The Right Role for Multiples in Valuation, The McKinsey Quarterly, pp.7-11

Kaplan, P., and Peterson, J. (1998) "Full-Information Industry Betas", *Financial Management,* Vol. 27, pp. 85-93.

Korteweg, A. (2007) The Costs of Financial Distress Across Industries, Working Paper.

Luehrman, T.A. (1997) "Using APV: A Better Tool for Valuing Operations". *Harvard Business Review*, pp. 3-10.

Luehrman, T.A. (1997) "What's it Worth?: A General Manager's Guide to Valuation", *Harvard Business Review*, pp. 132-141.

Massari, M. et al. (2007) "On the Equivalence between the APV and the WACC Approach in a Growing Leveraged Firm", *European Financial Management*, 14(1): pp. 152-162.

Pratt, S.P. 2006. The market approach to valuing businesses. 2nd edition. Englewood Cliffs, NJ: Wiley: 1-23

Rosenberg, B. and Rudd, A. (1998) "The corporate used of beta", *The Revolution in Corporate Finance*, 3rd Edition (Malden, MA: Blackwell Publishers), pp. 58-68.

Vernimmen, P., Quiry, P., Dallocchio, M, Fur, Y., and Salvi, A. (2005), Corporate Finance: Theory and Practice, England: John Wiley & Sons, Inc.

Young, M., Sullivan, P., Nokhasteh, A., and Holt, W. (1999) All Roads Lead to Rome – An Integrated Approach to Valuation Models, Goldman Sachs Investment Research.

8.2. Books

Bodie, Z., Kane, A., and Marcus, A.J. (2008) *Investments* (7th edition), Boston: McGraw-Hill/Irwin.

Copeland, T.E., Koller, T. and Murrin, J. (2000) *Valuation: Measuring and Managing the Value of Companies*, Third edition, New York: Wiley.

Damodaran, A. (1994) *Damodaran on Valuation* (1st edition), New York: Wiley Finance.

Damodaran, A. (2002*) Investment Valuation* (2nd Edition), New York: Wiley Finance.

8.3. Websites

Bloomberg: http://www.bloomberg.com/

Damodaran's website: http://pages.stern.nyu.edu/~adamodar/

Eugropa: http://www.eugropa.com

Inapa's Website: http://www.inapa.pt/

McKinsey on Finance: https://www.mckinseyquarterly.com/Corporate_Finance

Reuters Knowledge: http://www.knowledge.reuters.com/

SSRN: http://papers.ssrn.com

Yahoo Finance: http://www.finance.yahoo.com/

8.4. Other Sources

Inapa's Annual Report 2010

Inapa's Annual Report 2009

Inapa's Annual Report 2008

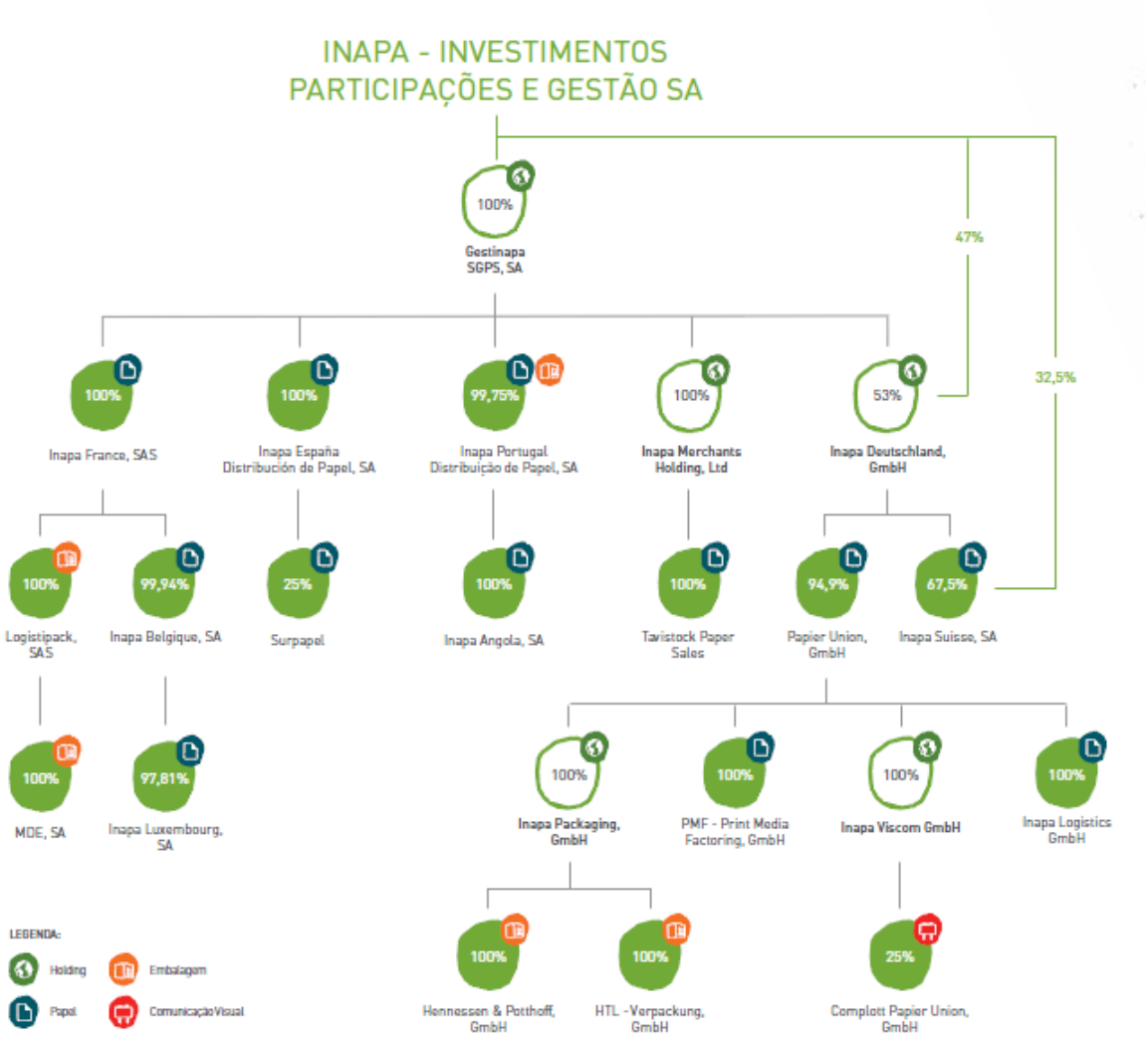
Inapa's Annual Report 2007

Inapa's Annual Report 2006

IMF World Economic Outlook (October 2010)

9. Appendixes

Appendix 1 – Inapa's Business Structure



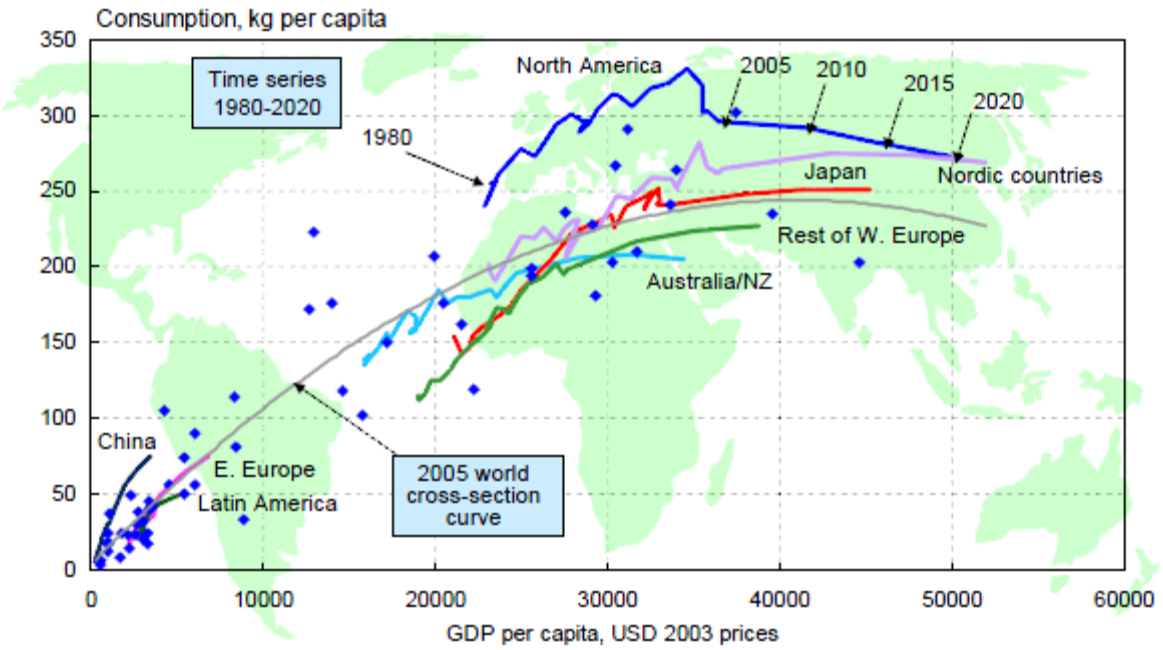
Source: Inapa Annual Report 2010

Appendix 2 – Real GCP Growth Rates

Real GDP Growth Rates (Annual Percent Change)	2011	2012	2013	2014	2015
Germany	2,02%	2,02%	1,84%	1,67%	1,32%
France	1,65%	1,80%	1,97%	2,10%	2,06%
Portugal	(0,05%)	,60%	1,10%	1,20%	1,20%
Switzerland	1,75%	1,80%	2,00%	2,00%	2,00%
Spain	,73%	1,79%	2,11%	2,13%	2,01%
Belgium	1,71%	1,65%	1,76%	1,85%	1,93%

Source: IMF (19/04/11)

Appendix 3 – GDP and Paper Consumption per Capita



Source: Poyry Consulting

Appendix 4 – Inflation Rate Estimates

Inflation Rate (Annual Percent Change)	2011	2012	2013	2014	2015
Germany	1,36%	1,40%	1,50%	1,70%	2,00%
France	1,61%	1,69%	1,81%	1,89%	1,90%
Portugal	1,22%	1,30%	1,44%	1,67%	1,90%
Switzerland	,50%	,90%	1,00%	1,00%	1,00%
Spain	1,14%	1,29%	1,45%	1,64%	1,85%
Belgium	1,91%	1,90%	2,05%	2,15%	2,15%

Source: IMF (19/04/11)

Appendix 5 – Forwards on Euribor

Forward Euribor	2011	2012	2013	2014	2015
3 months	2,05%	2,71%	3,15%	3,54%	3,76%

Source: Bloomberg (19/04/11)

Appendix 6 – Inapa's Historical Consolidated P&L

INAPA P&L (€ Millions)	2006	2007	2008	2009	2010
Volume (Tons)	1.075	1.027	984	887	914
Sales	1.073	1.050	1.044	938	980
Services Rendered	4	7	8	8	11
Other Income	33	34	26	25	26
Total Income	**1.110**	**1.091**	**1.078**	**971**	**1.017**
Cost of Sales	-905	-885	-872	-778	-810
Gross Margin	**205**	**206**	**206**	**193**	**208**
Changes in stocks	0	0	0	0	0
Personal costs	-89	-81	-78	-77	-79
Administrative costs	-81	-79	-79	-76	-83
Other costs	-16	-11	-9	-10	-13
EBITDA	**20**	**36**	**40**	**30**	**32**
Non recurrent costs	11	8	2	3	3
Re-EBITDA	31	44	42	33	35
Depreciations&Amortizations	-7	-6	-7	-6	-6
EBIT	**13**	**29**	**34**	**24**	**26**
Net Financial costs	-24	-35	-32	-19	-17
Gains / losses of associates	0	0	0	0	0
Impairment in non current assets	-43	0	0	0	0
EBT	**-53**	**-6**	**1**	**5**	**9**
Taxes	0	0	0	-3	-5
Net profit (loss) for the period of discontinued operations	0	-4	0	0	0
Minority Interests	0	0	0	0	0
Net Income	**-53**	**-10**	**1**	**2**	**4**

Appendix 7 – Inapa's Forecasted Consolidated P&L

INAPA P&L (€ Millions)	2011e	2012e	2013e	2014e	2015e
Volume (Tons)	955	972	990	1.008	1.024
Sales	1.046	1.079	1.108	1.137	1.161
Services Rendered	11	11	12	12	12
Other Income	26	27	28	29	29
Total Income	**1.084**	**1.118**	**1.148**	**1.177**	**1.203**
Cost of Sales	-863	-890	-913	-935	-955
Gross Margin	**221**	**228**	**235**	**242**	**247**
Changes in stocks	0	0	0	0	0
Personal costs	-80	-82	-83	-84	-86
Administrative costs	-86	-89	-91	-94	-97
Other costs	-13	-13	-14	-14	-14
EBITDA	**41**	**44**	**47**	**49**	**50**
Non recurrent costs	0	0	0	0	0
Re-EBITDA	41	44	47	49	50
Depreciations&Amortizations	-6	-6	-6	-6	-6
EBIT	**34**	**38**	**41**	**44**	**45**
Net Financial costs	-21	-20	-21	-21	-21
Gains / losses of associates	0	0	0	0	0
Impairment in non current assets	0	0	0	0	0
EBT	**14**	**19**	**21**	**22**	**24**
Taxes	-3	-5	-4	-5	-5
Net profit (loss) for the period of discontinued operatic	0	0	0	0	0
Minority Interests	0	0	0	0	0
Net Income	**11**	**14**	**16**	**17**	**18**

Appendix 8 – Inapa's Historical Consolidated Balance Sheet

INAPA Balance Sheet (€ Millions)	2006	2007	2008	2009	2010
ASSETS					
Non-current assets					
Tangible fixed assets	115	110	104	101	99
Goodwill	131	131	138	139	140
Other intangible assets	107	107	106	111	112
Investments in associates	1	2	2	1	1
Available for safe financial assets	19	13	14	9	1
Other non-current assets	18	18	19	19	22
Deferred income tax assets	19	26	27	22	21
Total non-current assets	**410**	**407**	**409**	**403**	**395**
Current assets					
Inventories	83	79	83	65	79
Accounts Receivable	243	222	210	174	197
Taxes to be recovered	8	11	10	8	6
Other current assets	36	39	45	42	46
Cash and cash equivalents	5	91	5	8	17
Total current assets	**376**	**443**	**353**	**297**	**345**
Discontinued operations assets	0	5	0	0	0
Total assets	**786**	**856**	**763**	**700**	**740**
SHAREHOLDER'S EQUITY					
Share capital	150	150	150	150	150
Treasury shares	-16	0	0	0	0
Share issue premiums	15	3	3	3	3
Reserves	-19	40	41	41	45
Retained earnings	-39	-36	-46	-45	-42
Net profit (loss) for the year	-53	-10	1	2	4
Minority interests	8	1	1	1	1
Total shareholder's equity	**45**	**148**	**150**	**153**	**160**
LIABILITIES					
Non-current liabilities					
Loans	263	80	103	98	157
Financing associated to financial assets	140	133	135	0	33
Liabilities for deferred tax	18	21	22	19	20
Provisions	1	1	5	1	1
Employee benefits obligations	4	3	3	3	3
Other non-current liabilities	16	17	16	11	11
Total non-current liabilities	**442**	**255**	**282**	**132**	**225**
Current liabilities					
Loans	173	327	229	210	249
Financing associated to financial assets	0	0	0	109	0
Accounts Payable	84	73	60	54	59
Taxes payable	13	13	11	11	15
Other current liabilities	29	36	30	32	32
Total current liabilities	**299**	**449**	**330**	**416**	**355**
Discontinued business liabilities	0	4	0	0	0
Total liabilities	**741**	**708**	**613**	**547**	**580**
Total shareholder's equity and liabilitie	**786**	**856**	**763**	**700**	**740**

Appendix 9 – Inapa's Forecasted Consolidated Balance Sheet

INAPA Balance Sheet (€ Millions)	2011e	2012e	2013e	2014e	2015e
ASSETS					
Non-current assets					
Tangible fixed assets	96	93	90	87	85
Goodwill	140	140	140	140	140
Other intangible assets	112	112	113	113	113
Investments in associates	1	1	1	1	1
Available for safe financial assets	1	1	1	1	1
Other non-current assets	22	22	22	22	22
Deferred income tax assets	19	16	14	11	8
Total non-current assets	**390**	**385**	**379**	**374**	**369**
Current assets					
Inventories	66	68	70	72	73
Accounts Receivable	207	214	220	225	230
Taxes to be recovered	7	7	**7**	7	8
Other current assets	49	50	52	53	54
Cash and cash equivalents	17	17	17	17	17
Total current assets	**346**	**356**	**365**	**374**	**382**
Discontinued operations assets	0	0	0	0	0
Total assets	**736**	**741**	**745**	**748**	**751**
SHAREHOLDER'S EQUITY					
Share capital	225	225	225	225	225
Treasury shares	0	0	0	0	0
Share issue premiums	3	3	3	3	3
Reserves	45	45	45	45	45
Retained earnings	-39	-32	-21	-9	5
Net profit (loss) for the year	11	14	16	17	18
Minority interests	1	1	1	1	1
Total shareholder's equity	**246**	**256**	**268**	**282**	**297**
LIABILITIES					
Non-current liabilities					
Loans	147	136	54	44	34
Financing associated to financial assets	33	33	33	33	33
Liabilities for deferred tax	21	23	24	25	26
Provisions	1	1	1	1	1
Employee benefits obligations	3	3	4	4	4
Other non-current liabilities	11	11	11	11	11
Total non-current liabilities	**216**	**207**	**126**	**117**	**108**
Current liabilities					
Loans	165	167	238	234	229
Financing associated to financial assets	0	0	0	0	0
Accounts Payable	61	62	64	66	67
Taxes payable	16	16	17	17	17
Other current liabilities	32	32	32	32	32
Total current liabilities	**274**	**279**	**351**	**349**	**346**
Discontinued business liabilities	0	0	0	0	0
Total liabilities	**490**	**485**	**477**	**466**	**454**
Total shareholder's equity and liabilities	**736**	**741**	**745**	**748**	**751**

Appendix 10 – SWOT Analysis

STRENGTHS	WEAKNESSES
Top European paper merchant	Great reliance on the European markek
Ranked as the 3rd largest player in the German and French key markets	High concentration and maturity of the paper market limits growth
Large client base	High leverage
Logistics infrastructure	Considerable shor-term maturities
Steady-state company with stable cash flows	No dividend distribution

OPPORTUNITIES	THREATS
Consolidation in the paper market	High concentratio of the paper market increases competition
Increase operational efficiency	Possible new entrants in the complementary busineses markets
Further diversification	Fluctuations in the economy
High grwoth prospects of complementary businesses	An increase in leverage could put the company in a difficult situation
Expansion to new marktets (Angola)	

Appendix 11 – Inapa's Subsidiaries

- **Inapa Germany - 56% of Group turnover / 54% of its workforce**

Inapa Germany is the sub-holding company that controls the Group's interests in Germany. In the Paper Merchant area INAPA operates through Papier Union, a renowned company with an 18% market share, a leading player in the German market. Papier Union's strategic vision and drive allowed the company to anticipate market trends and to tailor its product portfolio and services to the needs of its 36,000 customers, contributing towards an increase in their competitiveness.

Papier Union ensures German market full coverage through 12 warehouses / logistic platforms. The company has highly efficient service levels. Its logistics and management skills, together with geographical proximity, allow Germany to be a supply platform to INAPA Switzerland, an operation therefore enjoying significant Group synergies.

Among its range of products and services, the offer of logistics services – through Print Media Logistics – deserves particular highlight as it is a reference in the graphics segment. Also relevant is the distribution of graphic supplies in partnership with some major players in this area.

The Group also operates in the distribution of packaging products and solutions, through INAPA Packaging. . This business area is growing fast and its contribution is becoming relevant in the Group's total turnover. Furthermore, in accordance with Inapa's 2010 Strategic Plan, the Group has also entered in the visual communication market, through the acquisition of Complott Papier Union, a leading supplier in that segment.

- **Inapa France - 22% of Group turnover / 20% of its workforce**

Over the course of 2009, Inapa France acquired and integrated into its operations the business of Verpa Robert, thereby managing to strengthen its leading position in the Paris and Lyon regions and to increase the profitability of the resources it employs in that market. Inapa France accounts for about 25% of the Group's turnover and supplies approximately 8,000 paper sku´s to the French market. It manages a fleet of 55 trucks countrywide. Using two supply-chain platforms located near Paris it delivers on a daily basis to its 20.000 customer base.

Inapa France offers the full range of paper products and graphic consumables, together with a number of packaging solutions. Its entry into the packaging solutions business and its portfolio of packaging supplies were strengthened in 2008 following the acquisition of the entire share capital of Logistipak, a company that operates through a direct sales channel via the Carton Service brand. The Group's outlook for increased growth in this market is grounded on Inapa France's leading market position and on a positive outlook for the French economy.

- **Inapa Switzerland - 6% of Group turnover / 6% of its workforce**

Inapa Switzerland is one of the leading paper merchants in Switzerland with 18% market share. It operates in every single Swiss Canton and focuses on the distribution of graphic papers, office papers, cardboard, and wrapping paper to printers, publishers, companies and retailers. Its 112 employees take care of the needs of 5,300 active customers who consume about 57 thousand tons of paper per year.

Within the Group's strategy to diversify its business segments and to improve its sales performance, Inapa Switzerland established a partnership with a major player to sell office supplies, alongside with the further development of its direct sales channel. Its leading role as a major player in the Swiss market together with its potential for adding further value to the Group, justify the decision to acquire the entire share capital of this subsidiary in 2008.

- **Inapa Portugal - 6% of Group turnover / 9% of its workforce**

Inapa Portugal reinforced its leadership in the Portuguese market. It's now striving to find new ways to earn the loyalty of its customers while looking for new high potential business opportunities.

Market leader in the country, Inapa Portugal – Distribuição de Papel, S.A. has about 52% market share of the writing and printing papers distribution sector, serving the printers, publishers and office markets. In order to develop its business, the company broadened its range of products and services, specifically by including logistics services, a move very welcomed by customers. With an automated logistics facility in Sintra (Lisbon) it ensures paper supplies within 6 to 12 hours in the Lisbon/Oporto areas and within 24 elsewhere in the country. Carrying over 4,500 sku´s, the central warehouse distributes 250 tons of paper and cardboard and processes more than 500 invoices on a daily basis. Inapa Portugal also markets a range of office supplies, packaging products, and graphic supplies.

In its quest to increase efficiency on an ongoing basis, the company introduced new IT systems to support its sales area and new tools that are supported by state-of-the-art computer technology. Its website was redesigned to incorporate e-business capabilities and will soon be online as an additional sales channel, doubling as a support tool for its sales force.

Inapa Portugal expects to consolidate its business and plans to further increase its product range and develop new sales channels.

- **Inapa Spain- 7% of Group turnover / 8% of its workforce**

Operating in Spain since 1984, Inapa has become one of the leading paper merchants in the market. It operates 9 regional offices that provide countrywide coverage. Its logistics network was restructured in 2007 and is now capable of providing high-quality service to customers

based on a centralized warehouse located in Leganés (Madrid) featuring 12,700 m2 of storage area. Its full range of graphic and office papers complemented with the distribution of graphic supplies, special inks and other printing chemicals, has allowed Inapa to sustainably consolidate its business operations and to become one of the largest players in this market.

In July of 2010, Inapa concluded the acquisition of EBIX strengthening the company's presence in the Spanish market. With this operation, the Group becomes the third largest distributer of paper, holding a market share of 20%.

- **Inapa Belux - 3% of Group turnover / 3% of its workforce**

Inapa Belgium's operations focus on the distribution and sales of office paper and office supplies. In office paper area Inapa Belgium is one of the leading paper merchants, in a segment which accounts for about 115,000 tons, based on a high standard of service to its 5,500 customers together with a wide range of products. Its approach to its market relies on direct sales, allowing it to thereby achieve a high standard of efficiency achieving attractive returns. High-yielding returns followed on a restructuring and repositioning plan implemented from late 2007 to 2008.

Inapa Luxemburg holds a large share of Grand Duchy's market. A number of strategic initiatives were put in place during 2008 and 2009 with a view to focus the company on the paper and office supplies segments. Following a business model which was implemented in other markets, Inapa Luxemburg supplies a wide range of office supplies. Its direct sales channel accounts for an increasingly important share of total turnover.

- **Inapa Angola**

Angola is the Group's first venture outside Europe. Having done business in that country since 2002, the establishment of Inapa Angola in 2009 reinforces the Group's commitment to the Angolan market and to profit from the country's economic development.

As the first paper merchant with head offices in Luanda, Inapa Angola offers its customers the certainty of regular supplies together with technical assistance and expert advice on how to employ paper to their best advantage. The Company stores regular stocks of a full range of papers, graphic supplies and a wide variety of office papers.

Depth knowledge of the business and of its customers' needs, hand in hand with the Group's wealth of experience in European markets, now being made available in Angola, point to a bright outlook for growth in this market. However, due to the little information available, its complexity and the minute effect it still has on the company's turnover, the Angolan market was not addressed in the valuation analysis.