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Europac Group

An Equity Valuation

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Abstract

Europac Group: an Equity Valuation

By Miguel Andrade Santos

The following Master Thesis aims to answer the question “What is YE16 Europac Group Fair Value?”, compare it with BPI Equity Research, find a fair price and provide buy or sell recommendations.

This Dissertation begins with a research concerning valuable literature and models for Europac’s Group Valuation. After collecting the necessary data and formulating a deep company analysis, supported by the investor relations department, I was able to understand how should I approach this firm. In this context, by using the models I consider more appropriate (FCFF Method and Multiples), and building consistent assumption and forecasts, I was able to find the fair value of the firm.

Thus, the FCFF approach resulted in a share price for Europac of 5,64€, compared with a closing market share price of 5,25€ at the 31th December 2016.

The Multiples approach did not precisely correspond to the DCF valuation, arriving at different values (EV/EBITDA 5,42€; PE 6,99€;).

In this context, I arrived at a fair value price per share for Europac of 5,64€. It is, therefore, my believe that the share is underpriced and the market is going to adjust in 2017.

To conclude, I present a comparasion analysis with BPI Equity Research, highlighting the relevant differences in the assumptions and figures forecasted, in order to justify my conclusions regarding the fair price. Hence, I finish this dissertation providing a buy recommendation so that investors can make a capital gain.

Sumário

Europac Group: avaliação

Por Miguel Andrade Santos

A seguinte tese de mestrado tem como objectivo responder à questão “Qual é o valor justo YE16 do grupo Europac?”, comparar com a análise do BPI Equity Research, encontrar um preço justo e dar recomendações de compra ou venda.

Esta dissertação começa com uma pesquisa de literatura relevante e modelos de avaliação para o Grupo Europac. Depois de recolher os dados necessários e fazer uma análise à empresa apoiada pelo departamento de ‘investor relations’, eu fui capaz de perceber qual seria a melhor abordagem para esta firma. Neste contexto, usando os modelos que considero mais apropriados (FCFF method e Multiples), fazendo pressupostos e previsões consistentes, eu pude encontrar o valor da empresa.

Assim, o método FCFF resultou num preço por acção para o grupo Europac de 5,64€ comparado com um fecho de preço de mercado de 5,25€ a 31 de Dezembro de 2016.

Os múltiplos não corresponderam precisamente à avaliação DCF, chegando a valores diferentes (EV/EBITDA 5,42€; PE 6,99€).

Neste contexto, eu acabei com um preço justo por acção para a Europac de 5,59€ o que significa que eu acredito que o valor da acção está subavaliado e o mercado vai ajustar em 2017.

Para concluir, eu apresento uma análise comparativa com BPI Equity Research, destacando as diferenças relevantes nos pressupostos e previsões no sentido de justificar o meu justo valor. Por isso, eu finalizo esta dissertação dando uma recomendação de compra da acção no sentido dos investidores fazerem um ganho.

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1. Introduction

At Católica - Lisbon School of Business and Economics, the final requirement to finish the International Master of Science in Management, majoring corporate finance and minoring strategy and consulting is to write a master thesis.

This master thesis is an applied project valuation in comparison with an investment bank valuation in order to provide buy, sell or hold recommendations. Therefore, I had to choose a listed company and make the necessary and consistent assumptions in order to set up a fair value price. This project concludes with a price comparison between my dissertation and the investment bank equity research price, highlighting the main differences concerning methodologies, assumptions and forecasts.

I chose Papeles y Cartones de Europa SA (Europac) which is a Spain-based company operating in the paper and packaging industry and listed at IBEX 35. Since this company is one of the most important in this industry and has a large presence in Portugal, I decided to choose it for my applied project.

For the fair price comparison I chose Banco Português de Investimentos (BPI) due to two main reasons: it is a bank that covers Europac and, on the other hand, also that covers some others paper industry companies, providing good peers equity researches.

The following master thesis is divided in two main sections. The first section is related with the literature review and the second with the equity valuation case where I will create buy, sell or hold recommendations and make the comparison.

Thus, in the first section of my thesis, I write about the importance of valuation, its purpose and main valuation methodologies, cost of capital and concerns about cyclical companies valuation. Since there are plenty of models for companies valuation, only the relevant models for Europac's valuation will be presented and explained.

In the second part of my thesis, I start by presenting Europac Group, making an industry analysis and enhancing some important macroeconomic variables for the applied project. It is also presented the relevant assumptions, performance analysis and core valuations methodologies.

To conclude this section I compare my results, assumptions and methodologies with the BPI Equity Research, set a fair price, and highlight the main differences and possible limitations of both valuations.

2. Literature Review

2.1. The importance of equity valuation

When we look at the heart of finance, we find valuation as a core foundation. This happens because in many fields of the finance world, estimating the value of an asset is a required skill when making decisions (Damodaran, Investment Valuation, 2002).

Equity Valuation has become one of the most important finance topics because it is an important tool for managers when making important decisions. In this context, successful businesses look for people with skills on valuation, in order to assess what are the business sources of value and opt for smart decisions.

Unfortunately, nowadays, we can find top executive teams that don't really understand the companies sources of values well enough to make the best decisions. For this reason, understanding the company's components of value become important in order to decide between business strategies, develop a corporate portfolio strategy, understand the company's daily transactions, acquisitions, restructurings and design an effective capital structure minimizing the risk of financial distress (Koller, Goedhart, Wessels, & Company, 2005).

In conclusion, understanding the mechanisms of a company valuation becomes an important tool for financial operations and decisive when identifying the company sources of economic value. (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007).

2.2. Value, Price and Valuation Purposes

When creating valuations we have to be aware that a certain firm's value is different according to the buyers and sellers perspective. This means that the final transaction price may differ from the company's fair value since it is a result from a negotiation between two parties (seller and buyer). Indeed, a company's price may also differ from buyer to buyer due to some economic factors such as: economies of scale, economies of scope and different perceptions about the industry and the company.

Nowadays, managers do valuations for a wide range of purposes. However, the most important are the following: Buying and Selling operations, companies valuation for stock trading decisions, security portfolio decisions, company comparasions, public offerings when

companies want to do IPO's and SEO's, inheritance and wills to compare shares and other assets values, compensation schemes based on value creation, identification of value drivers and strategic planning decisions (Fernandez, *Company Valuation Methods. The most common errors in valuation*, 2007).

Although valuations have this multiplicity of purposes, in this dissertation the main purpose is to value a listed company in order to set up a fair price and suggest recommendations to the investors.

Therefore, this dissertation will be about finding and justifying what are the best valuation methods that suit Europac characteristics.

2.3. Valuation models

Today's analysts face a wide diversity of valuation models, some of them more simple and others more sophisticated. The assumptions taken become then the ultimate differentiation factor between models (Damodaran, *Investment Valuation*, 2002).

In the past decades, many valuation frameworks have been developed in order to suit the different companies in the business world. The number of valuation methods has grown so much that we have reached a situation where there is a big diversity of valuation models.

Indeed, all present valuations approaches are simply equivalent mathematical models and different ways of computing the same underlying model.

Hence, we can say that is not possible to find a model suitable for every type of company and, in this context, the choice of the model and approach should rely on the most robust to face data imperfections.

Summing up, there is a trade-off between models related with possible limitation and weak assumptions (Young, Sullivan, Nokhasteh, & Holt, 1999).

2.3.1. Most Common Valuation Models

Valuation methods can be classified in six different groups (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007): Balance Sheet, Income statement, Mixed Goodwill, Cash Flow Discounting, Value Creation and Options.

Based on the author's classification, the following table illustrates the most relevant methods:

Main Valuation Models	Equity Values	Enterprise Values	Others
Asset - Based Valuations			Book Value; Adjusted Book Value; Liquidation Value; Substantial Value.
DCF - Based Valuations	Free Cash Flow to Equity (FCFE); Dividend Discount Model (DDM); Dynamic ROE.	Free Cash Flow to the Firm (FCFF); Adjusted Present Value (APV); Capital Cash Flow (CCF); Economic Value Added.	Economic Profit; Cash Flow Added.
Multiples	Price-to-Earnings (PE); Price-to-Book Value (PBV); Price-to-Cash Flow ratio; Dividend Yield ratio (DV); Tobins Q.	Enterprise Value to EBITDA (EV/EBITDA); Enterprise Value to EBIT (EV/EBIT); Enterprise Value to Capital (EV/Capital); Enterprise Value to Sales (EV/Sales).	
Options			Black and Scholes; Investment Options; Expand the Project; Delay the Investment; Alternative Uses.

EXHIBIT 1: " VALUATION METHODS"

Source: Fernandez, Company Valuation methods.

Enterprise and Equity values are different and it is important to clarify the main difference to be able to avoid mistakes. When we use these methods, we have to be aware that enterprise values measure the company's operating cash flow whereas equity values measure the equity holder's claim. Thus, we can follow two paths when valuing the equity of a company. In one hand, we can determine the company's equity by adding the operations value to cash and subtracting all nonequity financial claims. Or we can value the equity cash flow directly. (Koller, Goedhart, Wessels, & Company, 2005).

I will further discuss and talk about some methods which I consider relevant for my valuation.

2.3.1.1. Discounted Cash-Flow Based Models (DCF)

DCF models are very popular nowadays because not only they are conceptually correct but also they are considered the base on which all other models approaches are build according to (Damodaran, Investment Valuation, 2002). Following the basis of DCF valuations, the value of any asset today is determined by the present value of the expected cash flows that the asset may generate, discounted at the appropriate rate which reflects the riskiness of the cash flow.

Hence, the cash flows and discount rates should be different depending on the DCF method chosen. This means different discount rates depending on the riskness of the asset's cash flow. At the paper (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007) the author proposed the next expression for the DCF models:

$$V = \frac{CF_1}{1 + K} + \frac{CF_2}{(1 + K)^2} + \frac{CF_3}{(1 + K)^3} + \dots + \frac{CF_n + RV_n}{(1 + K)^n}$$

Where:

$$RV_n = \frac{CF_n \times (1 + g)}{K - g}$$

CF_i is the cashflow generated by the firm in period i ;

RV_n is the residual value of the firm at year n ;

K is the appropriate discount rate for the cashflows' risk;

g is the constant growth rate of the future cashflows.

Looking at the expression, we can conclude that there are two distinct sources of value for a firm. In one side, the forecasted cash flows from the explicit period discounted at the appropriate rate. In the other side, the termination value period that corresponds to the post-period, where the cashflows of the firm are expected to stabilize.

2.3.1.2. EXPLICIT PERIOD AND THE TERMINAL VALUE

Predicting a firm's financial performance is essential for an accurate valuation when using DCF models. Usually analysts divide the forecasted period in two horizons: first, they focus on the financial statement line items forecasts upon a certain time horizon to determine the intrinsic value. Second, when they believe the company is going to stabilize beyond the explicit period, they focus on the terminal value.

Since we are anticipating financial outcomes, the time horizon of our forecasts is something that affects our valuation and may lead to some errors. Thus, according to the author, the larger the length of the explicit period the less valuations errors. In other words, they tend to disappear as the length approaches to infinity (Ohlson & Zhang, 1999). For this reason, since it is not reasonable to do an infinite length forecast, the author argues that an explicit period should range between 10 to 15 years.

2.3.1.3. THE MOST COMMON DCF MODELS

Nowadays, there is a huge variety of DCF models that we can use, some more sophisticated and others more straightforward. Damodaran at (Damodaran, Investment Valuation, 2002) suggests dividing DCF models in three general groups: Valuing the equity part of the company (FCFE), valuing the whole firm (FCFF) and valuing each part of the firm separately (APV). However, I will only cover the FCFF in the present state of art since it is the one I will use for the valuation. Additional models are explained in the appendix.

At (Fernandez, Equivalence of Ten Different Methods for Valuing Companies by Cash Flow Discounting, 2008) the author shows that, when the assumptions are consistent, valuation models may end up with the same value although they may differ in terms of cash flows taken as a starting point.

The different DCF models can be classified in Equity and Enterprise values and also in Absolute and Return based valuation (Young, Sullivan, Nokhasteh, & Holt, 1999). Thus, the following table illustrate a different way of categorizing DCF models.

Discounted Cash Flow Models	Absolute Valuation	Return Based Models
Enterprise Values	Free Cash Flow to the Firm (FCFF); Adjusted Present Value (APV); Capital Cash Flow (CCF).	Economic Value Added
Equity Values	Free Cash Flow to Equity (FCFE); Dividend Model (DDM).	Dynamic ROE

EXHIBIT 2: " DCF METHODS DIVISION "

Source: Sullivan Young, Holt & Nokhasteh.

2.3.1.3.1. FREE CASH FLOW TO THE FIRM (FCFF)

A FCFF is the expected cash-flow from operations after all operating expenses, all company investments (capital expenditure, working capital) and all taxes being paid and prior to equity and debt payments.

Therefore, the FCFF formula is:

$$\begin{aligned}
 \text{FCFF} &= \text{Earnings Before Interest and Taxes (EBIT)} \\
 &\quad - \text{Taxes on EBIT} \\
 &+ \text{Amortization} + \text{Provision } (\Delta) - \text{all non cash charges} \\
 &= \text{Cash Flow from operations} \\
 &\quad - \text{Investment on Working Capital} \\
 &\quad - \text{Capital Expenditures} \\
 &= \text{Free Cash Flow from operations} \\
 &+ \text{Cash Flow form non - operational sources}
 \end{aligned}$$

The tax variable at the equation represents the effective tax rate applied to earnings and not the statutory tax rate (Fernandez, Equivalence of Ten Different Methods for Valuing Companies by Cash Flow Discounting, 2008).

The firm enterprise value is determined by discounting the value of the company's FCFF at the appropriate discount rate, this is, at the after-tax WACC (Weighted Average Cost of Capital) (Damodaran, Investment Valuation, 2002) (Koller, Goedhart, Wessels, & Company, 2005).

$$\text{Enterprise Value} = \frac{\text{FCFF}_1}{1 + R_{\text{WACC}}} + \frac{\text{FCFF}_2}{(1 + R_{\text{WACC}})^2} + \frac{\text{FCFF}_3}{(1 + R_{\text{WACC}})^3} + \dots + \frac{\text{FCFF}_n + \text{TV}_n}{(1 + R_{\text{WACC}})^n}$$

$$\text{Where } \text{TV}_n = \frac{\text{FCFF}_n \times (1+g)}{R_{\text{WACC}} - g}$$

Thus, through the equality below, Fernández demonstrates that the present value of the future cash flows of the firm discounted at the after-tax WACC give the value of the debt plus the shareholder's equity value. (Fernandez, Valuing Companies By Cash flow discounting: Ten Methods and Nine Theories., 2007)

$$E_0 + D_0 = \text{PV}_0 (\text{WACC}_t; \text{FCF}_t)$$

The value of equity is determined after deducting the value of all nonequity financial claims such as fixed and floating debt, pension shortfalls, employee options and preferred stock. By subtracting the value of nonequity financial claims to the enterprise value we can find the fair value of the company (Koller, Goedhart, Wessels, & Company, 2005).

The cost of capital for the firm used in this model is the after-tax WACC (weighted average cost of capital), which is the minimum rate of return required by firm's different sources of funding (shareholders and lenders) (Quiry, Dallochio, Fur, & Salvi, 2005). The after-tax wacc is the effective cost of capital to the firm, after including the benefits of the tax shields (Berk & DeMarzo, 2014).

Although we can find many versions of the same formula for the cost of capital, in a FCFF model, the most common one is the following:

$$\text{After - Tax Wacc} = R_e \times \frac{E}{D + E} + R_d \frac{D}{D + E} \times (1 - T_c)$$

Where:

R_e : Required rate of return from shareholders;

E: Market Value of Equity;

D: Market Value of Debt;

R_d : Cost of Debt;

T_c : Corporate Tax Rate.

Even though the most common wacc formula is expressed in the above way, some authors suggest different visions of the wacc formula as you will find below.

The author (Fernandez, Valuing Companies By Cash flow discounting: Ten Methods and Nine Theories., 2007) suggests:

$$\text{wacc} = R_u \times \left(1 - \frac{D \times T_c}{E + D} \right)$$

Differently, the authors Harris & Pringle (1985) and Ruback (1995) suggest:

$$\text{wacc} = R_u - \frac{D \times R_d \times T_c}{E + D}$$

This model works very well for projects valuation, business units and company's valuation that manage their capital structure to a target level (Koller, Goedhart, Wessels, & Company, 2005). However, the implementation of this model requires to meet some conditions: First, the growth rate used should be less or equal than the economy growth rate (nominal growth rate when the cost of capital is in nominal terms and real growth rate when the cost of capital is in real terms). Second, the firm's characteristics should be consistent with the stable growth assumptions (Damodaran, Investment Valuation, 2002).

Similarly to all stable growth models, this model has some limitations regarding its application. In one hand, this model is very sensitive to assumptions about the growth rate and this is enhanced by the fact that we use the wacc which is lower than the cost of equity.

On the other hand, this model is strongly impacted by assumptions such as the capital expenditures relative to depreciation. Thus, the FCFF can be inflated or deflated by reducing or increasing capital expenditure relative to depreciation (Damodaran, Investment Valuation, 2002).

2.3.1.4. THE COST OF CAPITAL

Estimating a correct cost of capital is very important in order to make good financial decisions in portfolio management, capital budgeting and performance evaluation (Bartholdy & Peare, 2003).

According to (Modigliani & H. Miller, 1958), understanding that different cash flows require different appropriate discount rates is very important when choosing the correct rate for each model.

There are three basic cash flows that we should be close with: the free cash flow, the equity cash flow and the debt cash flow. Each of these cashflows should be discounted at a rate that describe the riskness of the cash flow.

In this context, the next table inspired in (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007) summarizes the appropriate discount rates for each type of cash flow.

DCF Models	Appropriate Discount Rate
Free Cash Flow to the Firm	After-Tax Wacc
Capital Cash Flow	Before-Tax Wacc
Adjusted Present Value	Unlevered Cost of Capital
Free Cash Flow to Equity	Return on Equity
Dividend Discount Model	Return on Equity
Economic Value Added	After-Tax Wacc

EXHIBIT 3: "APPROPRIATE DISCOUNT RATES"

Source: Fernandez Company Valuation Methods.

In order to make consistent estimations, the cost of capital should meet some criteria, by other words, the cost of capital should fulfil some requirements.

Firstly, the cost of capital should include the costs from debt, equity and other sources of capital. Secondly, it must be denominated in the same currency of the cash flow and in normal terms when cash flows are in normal terms (Koller, Goedhart, Wessels, & Company, 2005).

2.3.1.4.1. THE COST OF EQUITY AND LEVERAGE EFFECTS

In order to estimate the equity cost of capital we can use the most common asset-pricing model CAPM since it translates risk into expected return.

There are alternative models which differ in how they define risk. Examples of alternative models are the Fama-French three-factor model and the arbitrage pricing theory (Koller, Goedhart, Wessels, & Company, 2005).

The CAPM model was developed by Sharpe-Lintner and it is used to quantify differences in returns. So, this is a model which incorporates the relationship between risk and return, this is, incorporates risk-free rate, security beta and market risk premium in the same formula (MacKinlay, 1995).

One of the attractions of the CAPM model is the fact that it provides an intuitive way of measuring the risk related with expected return.

According to CAPM model, the beta of an asset represents the slope of a regression of its return on the market return. This is, beta measures how sensitive a security's future returns will be to the market risk (Fama & R. French, 2004).

Inspired in (Damodaran, Investment Valuation, 2002) the beta of an asset can be computed in the following way:

$$\beta_i = \frac{Cov_{im}}{\sigma_m^2}$$

Where:

Cov_{im} represents the covariance of an asset i with Market portfolio;

σ_m^2 represents the variance of the market portfolio.

Since Financial leverage increases have an impact at the equity betas, an important distinction should be made between unlevered beta and levered betas. This means, levered companies become riskier since they have to pay fixed interest payments on debt (Damodaran, Investment Valuation, 2002).

Therefore, if the firm's risk is supported by stockholder and there is tax benefit from increasing debt, then:

$$\beta_L = \beta_U + \beta_U \times (1 - T) \times \frac{D}{E}$$

Where:

β_L = Levered Beta for equity in the firm;

β_U = Unlevered beta of the firm;

T = Corporate Tax Rate;

D/E = Debt to Equity Ratio.

Therefore, one can conclude that by using the CAPM models it is possible to deduct a formula for the equity cost of capital.

$$R_e = R_f + \beta_e (R_M - R_f)$$

Where:

R_e represents the rate of return on equity for an asset;

R_f represents the Risk-free;

$R_M - R_f$ represents the equity risk premium.

Although the version of CAPM model created by Sharpe (1964) and Lintner (1965) is the most used asset pricing model, it has never been an empirical success. Empirical work has proven that the relationship between beta and the average return is flatter than predicted by the Sharpe-Lintner version. This means, that the authors CAPM version estimates a cost of equity that is too high for high beta stocks and too low for low beta stocks.

In conclusion, this model is commonly used to measure the performance of some portfolios and its problem is linked with the fact that CAPM, being an empirical failing, can lead to abnormal returns at passively managed stocks portfolios (Fama & R. French, 2004).

RISK-FREE RATE (RF)

An asset is risk-free when it provides certain expected returns, this means, when it has no default risk and, at the same time, there is no reinvestment risk. Usually, the only securities that can be risk free are government securities because they can control the currency printing. The risk-free rate is very important since it has implications at the risk premium, equity cost of capital and debt cost of capital values, thus, a mistake in this variable can lead to mistaken valuations.

In conclusion, according to the Damodaran the risk-free rate should be a long term government bond rate with a maturity close to the cash-flows explicit period. (Damodaran, Investment Valuation, 2002).

EQUITY RISK PREMIUM (ERP)

The ERP is the extra return that investors demand to compensate by incurring in a risky investment. Hence, this an important variable that influences the cost of equity which may have a strong impact on a valuation.

It influences decisions regarding how an investor allocates wealth to different asset classes and in which asset investors should invest within a certain class. According to the author, the ERP depends on five different determinants: risk aversion, economic risk, information, liquidity and catastrophic risk (Damodaran, Equity Risk Premiums (ERP): Determinants, Estimation and Implication, 2008).

The author suggests that there are three different approaches to compute the ERP: Survey Premiums, Historical Premiums and Implied Premiums.

The survey premiums consist on asking these investors what is the premium they require, being the challenge related with the relevant investors choice in the market.

The Historical Premium consists on looking at historical data in order to compute the ERP. This might create some problems due to the time period used and choice of risk-free security that can affect the value of the ERP.

The Implied Premiums consists on assuming that the market overall is correctly priced and by computing the present value of the dividends growing at a constant rate we can take the equity cost of capital and subtract the R_f obtaining the implied ERP.

2.3.1.4.2. THE COST OF DEBT

This is the firm's cost of financing projects with debt. The cost of debt is determined by adding two variables: the riskless rate and the company default risk spread. According to the author (Damodaran, Investment Valuation, 2002) it is important to make a distinction between before and after tax cost of debt. The after tax cost of debt is lower because it takes into account the interest payments.

The author suggests 4 ways of estimating a firm's default risk. In the first scenario, we can estimate using the long term bonds that are traded taking the yield as the cost of debt. The second scenario, when a firm does not have traded bonds, we can use the credit rating associated to default spreads. The third scenario, when the firm is not rated, we can look at historical recent borrowings that can give us some estimate. Lastly, we can estimate a synthetic rating, this is, use the interest coverage ratios and get the rating (Damodaran, Investment Valuation, 2002).

2.3.1.5. RELATIVE VALUATION

Unlike DCF approaches, where we estimate the intrinsic value of an asset using its cash flow, at relative valuations we estimate the value of an asset taking into account similar assets priced in the market. When the market is correct, this is efficient, both valuations will converge (Damodaran, Investment Valuation, 2002).

According to the author (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006), we should take three steps when doing relative valuations. Firstly, finding comparable assets priced in the market which is very important because wrong comparables can lead to some error. Secondly, scaling the market prices to a common variable, this means, generate standardized prices so that they become comparable. Thirdly, adjusting for differences across assets.

There are several reasons for multiples popularity such as the fact that they are quicker and require less assumptions, they are simple and easier to present to clients and reflect the current mood of the market.

In the same way, relative valuation has weaknesses such as the fact that they ignore growth, risk and the firm's potential cash flow generation variables, leading to inconsistent estimates.

Finding a similar company group can be challenging and since relative valuations reflect the market mood, when the market overvalues comparable firms, that will have an impact on our valuation. The lack on transparency on relative valuation assumptions make them more willing to be manipulated.

Multiples can be divided into three different categories such as: multiples based on the company’s capitalization (equity based multiples), multiples based on the company’s value (enterprise based multiples) and growth reference multiples (Fernández, Valuation using multiples. How do analysts reach their conclusion?, 2001).

Based on this division the following table illustrates the most common multiples divided by category.

Relative Valuation	Multiples	Main drivers of value
Equity Value Multiples	Price Earnings (PER) Price to Cash Earnings (P/CE) Price to Sales (P/S) Price to Levered Free Cash Flow (P/LFCF) Price to Book Value (P/BV)	Risk, growth and payout ratio. Risk, growth and earnings. Risk, growth and sales. Risk, growth, reinvestment rate, cash flow potential. Risk, growth and ROE.
Enterprise Value Multiples	Enterprise Value to EBITDA (EV/EBITDA) Enterprise Value to EBIT (EV/EBIT) Enterprise Value to Sales (EV/SALES) Enterprise Value to Unlevered FCF (EV/FCF)	Risk, growth, tax rate and Risk, growth, tax rate and ROIC Risk, growth, tax rate, margins. Risk, growth and cash flow potential.
Growth Reference Multiples	PER to EPS growth Enterprise value to EBITDA growth	Risk and growth. Risk and growth.

EXHIBIT 4: " RELATIVE VALUATION"

Source: Fernandez, Valuation using multiples.

The PER is one of the most used Equity Value multiples according to (Fernández, Valuation using multiples. How do analysts reach their conclusion?, 2001) being also very popular for cyclical companies valuations according to (Damodaran, Investment Valuation, 2002). It links the company value to profit becoming very easy to calculate. This multiple incorporates some limitations since it is highly sensitive to capital structure changes, nonoperating items and looks at the profits rather than cashflows (Nolen Foushee, Koller, & Mehta, 2012).

The Price to Book Value is also an important multiple because it compares the price today with historical equity. Unlike PER, its main advantage regards the fact that it can be used in companies with losses.

However, since the books values are usually very influenced by accounting rules and adjustments, some analysts don’t believe this multiple measures the true value of an asset.

An alternative multiple to the Price to Book Value is Tobins Q (Damodaran, Investment Valuation, 2002). This multiple is very popular for banks valuation, however, there are other industries such as paper and pulp and insurance companies where it is also often used (Fernández, Valuation using multiples. How do analysts reach their conclusion?, 2001).

The EV/EBIT and EV/EBITDA are the most used by analysts within Enterprise value multiples. This happens because, unlike equity value multiples, those are not affected by earnings potential distortions (Nolen Foushee, Koller, & Mehta, 2012).

In one hand, EV/EBIT is a ratio less willing to be affected by the firms changes on capital structure for two reasons: first, the enterprise value includes both equity and debt, second, EBIT represents the profit available to investors. Only when the cost of capital is affected by a big change on the capital structure we may find a change in the multiple value. It is important not to forget that this multiples depend on ROIC and growth (Goedhart, Koller, & Wessels, 2005).

On the other hand, EV/EBITDA is a very appreciated multiple by analysts since the company's capital structure does not affect directly the value of the multiple and because depreciation is a non cash expense, it reflects sunk cost and not future investments (Koller, Goedhart, Wessels, & Company, 2005). Although the author (Lie & J. Lie, 2002) argues that EBITDA multiples yields better estimates than EBIT multiples, the author (Fernández, Valuation using multiples. How do analysts reach their conclusion?, 2001) presents two limitations to this multiple. The first is that it does not include changes in working capital and, second, does not consider capital investments.

2.3.1.6. VALUING CYCLICAL COMPANIES

Cyclical companies have certain characteristics that distinguish them from others. We are in the presence of a cyclical company when we observe a repeating pattern of increases and decreases on earnings. In the paper industry, there is some volatility in their product prices and raw materials, hence, we can say that it is a cyclical industry. The paper industry is highly driven

by industry factors regarding capacity and, therefore, the volatility on earnings can lead to additional complexity (Koller, Goedhart, Wessels, & Company, 2005).

Usually, commodity companies have five typical characteristics according to (Damodaran, Ups and Downs: Valuing Cyclical and Commodity Companies, 2009): the firms cycle depends deeply on the economy cycle, their earnings and cash flows are volatile, when the macro move is very negative these companies are exposed to many risk and their resources are finite.

Macroeconomic factors impact deeply these type of firms and some errors on valuation arise because analysts ignore the economic or commodity cycle.

Although, forecasting the economy cycles is hard and time consuming, so Damodaran suggests ways of valuing these companies. Using either DCF or Multiples approach the author suggests, firstly, to use normalized cash flows, growth rates and discount rates and, secondly, adjust the growth rate in order to reflect where we are in the cycle.

Finally, there is an important issue discussed by (Arnold & North , 2005) regarding the termination value computation in cyclical companies. In this context, he suggests one termination value method that is consistent with long-run cyclical cash flow.

The first strategy the author suggests is to forecast the cash flows of one entire cycle, this is, at the explicit period. And, secondly, use the cash flow of one period beyond the explicit period to determine the termination value, assuming constant perpetual growth rate. He defends that the future cash flows are so distant in time that this assumption can be validated since errors are minimal.

3. Europac

3.1. Company Presentation

Papeles y Cartones de Europa SA (Europac) is a multinational company engaged in the value chain with activities in the paper and cardboard industry. This company contains 26 industrial facilities, 2.300 direct employees and operates in four different countries: Spain, Portugal, France and Morocco.

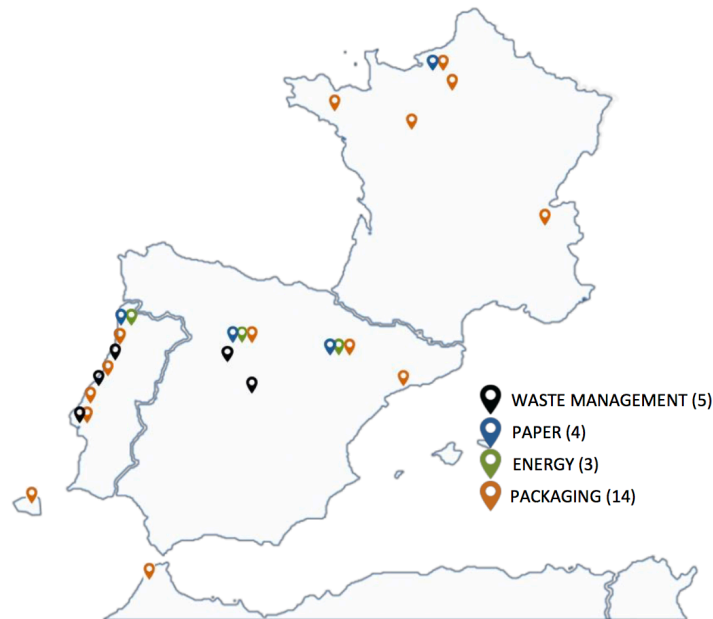


EXHIBIT 5: "EUROPAC'S GEOGRAPHIC POSITION PER BUSINESS LINE"

Source: Investor Relations.

Europac is the first recovered paper manager in Portugal and the fourth in Spain, leader in paper production in their relevant markets, fourth European kraftliner paper producer, first Portuguese market packadging supplier and fourth in Iberia and France.

This company was created in 1890 at Valladolid and became listed in 1998. Rapidly, Europac aligned its strategy and started its capacity expansion together with an internationalization process.

In 2000, Europac installed three recycled paper fabrics in Portugal, as well as 700 hectares of forest, a fabric of kraftliner paper and five cardboard and boxes factories.

The major growth started in 2008 when the company installed a recycling paper fabric and five corrugated cardboard and boxes factories, becoming one of the most important companies in the paper and packaging industry.

Becoming international, Europac was able to diversify their products and services, managing all stages of the supply chain and use synergies to become operationally and financially efficient.

3.2. Europac's Management Way

Europac manages in a way where operational and commercial processes are developed internally which turns it easier to align strategic targets with the day-to-day operations.

Europac's Management Way is based on 4 milestones: Europac Management System (EMS), Europac Operations System (EOS), Europac Sales System (ESS) and Corporate University (UNIPAC).

The EMS is a management tool developed internally for strategy and objective purposes. It is continuously changing and inspired by the industrial management systems. Following this principle, Europac is able to use all the available resources to increase the products quality.

Secondly, EOS is a model focused on improving the company's processes, reducing costs and increasing efficiency.

Thirdly, the ESS is a sales management model which focus on improving earnings and profitability, adding value to the group and its costumers.

Finally, UNIPAC is a corporate university which trains their new interns aligning them with the company's objectives, culture and values.

3.3. Europac Main Shareholders

Europac's main shareholders are Harpalus S.L (40%), Cartera Industrial REA S.A (6,6%), D. Ángel Fernández(6,4%), Norges Bank (5%), Onchena S.L (5%) and Free float (37%).

4. Industry

Papeles y Cartones de Europa SA (Europac) operates in the Paper & Packadging cyclical industry. This is an industry characterized by its maturity and big volatility on paper and corrugated cardboard prices which are responsible for the revenue ups and downs.

4.1. Global outlook

According to CEPI the overall consumption of paper and cardboard consumption increased 1% in 2016 compared with 2015. In the Eurozone the paper and packaging industry are facing weak

investment and productivity growth. In addition to this, political uncertainty in advanced economies nowadays and financial market disruptions are weakening the potential growth.

It is expected an increase of the paper and board production in global terms. Between 2010 and 2014 the industry grew by 7,6 million tones and is expected to keep growing until 2020. In the graphic below it is possible to see the forecasts per zone.

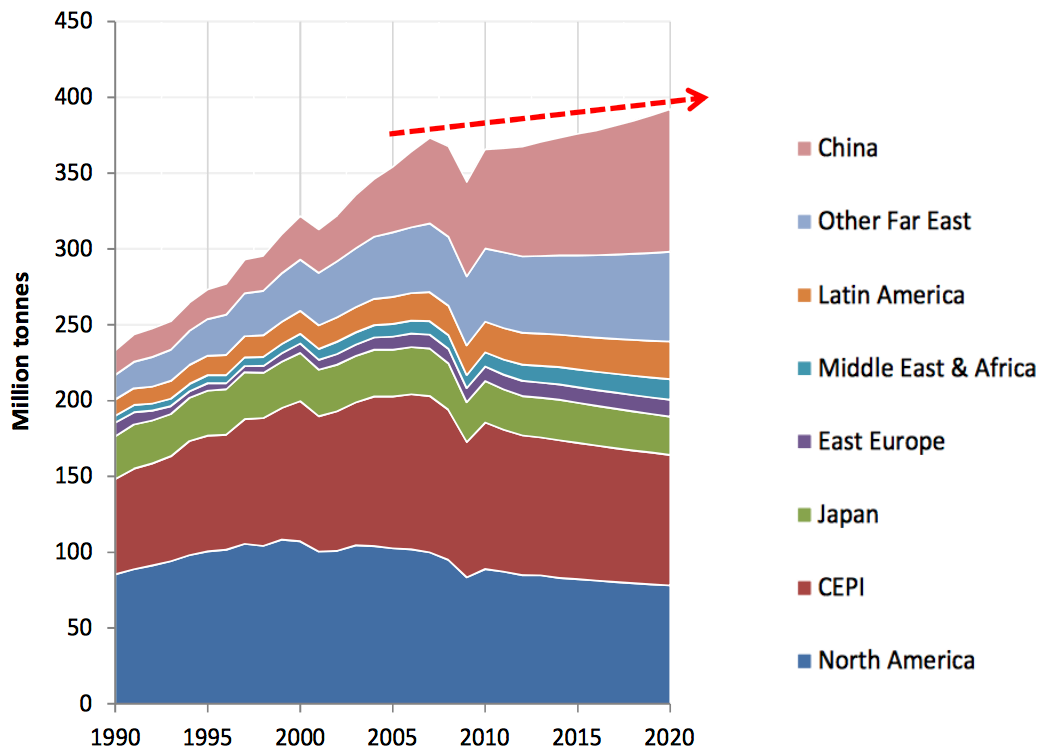


EXHIBIT 6: "PAPER AND BOARD PRODUCTION PER GEOGRAPHIC AREA"

SOURCE: HAWKINS WRIGHT

We will face a world paper demand increase of 25% until 2020, mainly in Europe where companies have been investing in new capacity in the last decade becoming leaders in terms of exports.

According to CEPI, paper and board production declined from 2015 to 2016 which in terms of figures represents a decrease of about 0,1%.

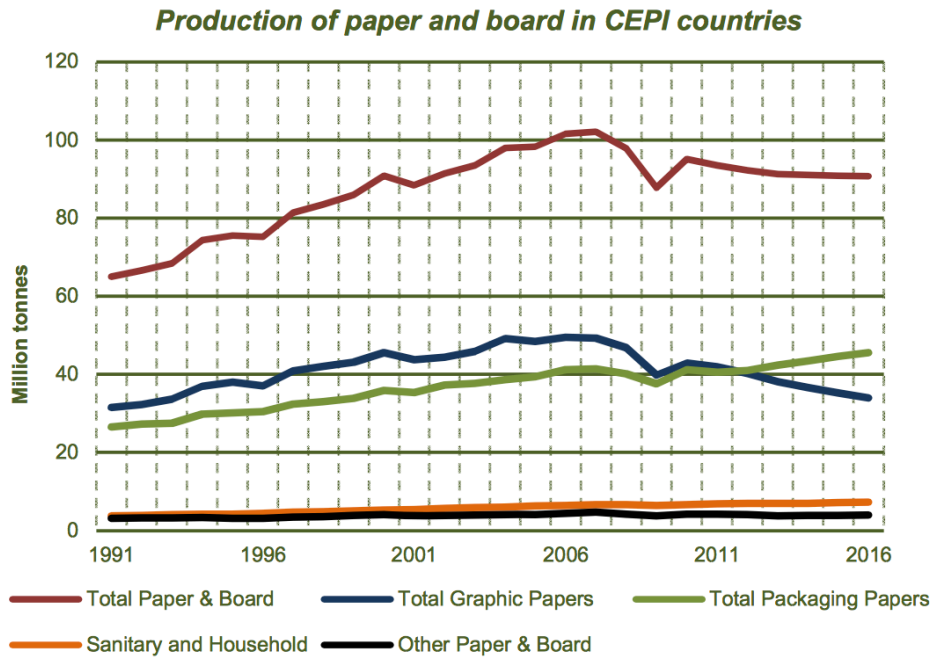


EXHIBIT 7: PAPER AND BOARD PRODUCTION.

Source: CEPI

The paper market was characterized by a decline in the output of graphic grades and, by contrast, an increase of the packaging grades. In one hand, the 3,7% decline in production of graphic grades was caused by a reduction in the printing and publishing activities. On the other hand, there was an increase of 2,3% of packadging grades compared to 2015.

In terms of Gross Domestic Product (GDP), we can see a positive trend on the countries where Europac operates. After a slowdown in the economies where Europac operates in 2015 which resulted in a reduction of demand, it is possible to forecast a small recovery in the coming years.

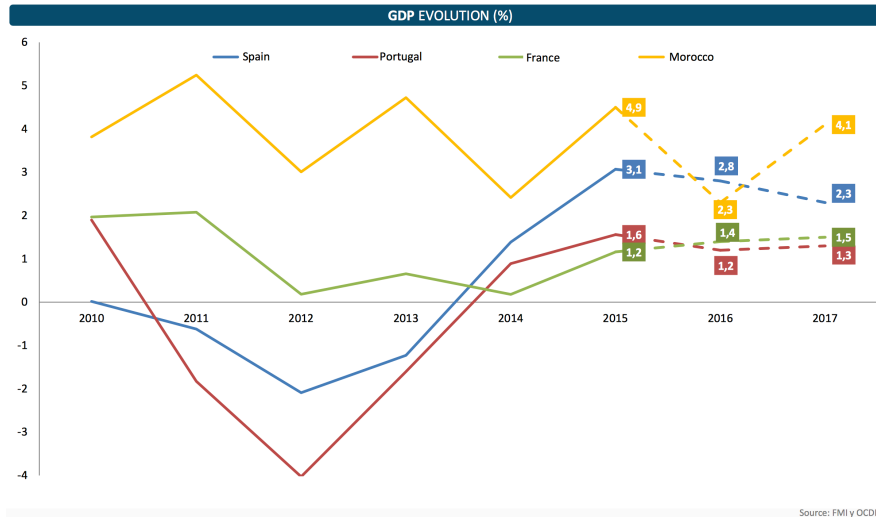


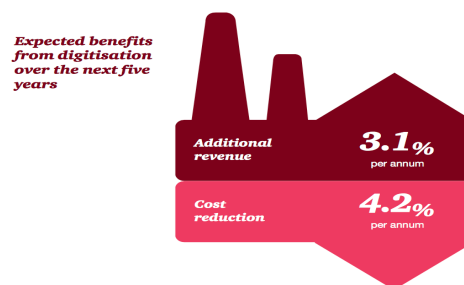
EXHIBIT 8:" GDP EVOLUTION OF SPAIN, PORTUGAL, FRANCE AND MORROCO"

Source: Investor Relations.

According to Moody's, 2016 was a year dominated by the stability in the paper and forest paper products. Moody's Investors Service expects European producers to account for around 25% of the total operating income of paper and forest products industry. European companies operating income will grow at between 0%-2% and it is expected a growth increase in the packadging industry linked to the European economy growth.

Many industries nowadays are facing a digital transformation to enhance their portfolio of produtes and Paper and Packadging are not an exception. Surveys say that paper and packaging companies are expected to invest 4% of their revenue on digital operations in the next 5 years. Digitalisation has become very important to increase sales and tigh margins of this type of industry.

Figure 2: High expectations of cost savings, increased revenue and efficiency gains (forest, paper and packaging)



Q: What benefits from digitisation do you expect in the next five years?

EXHIBIT 9: " DIGITALISATION BENEFITS"

Source: PricewaterhouseCoopers

The Spanish paper industry is expected to keep recovering after the growth in 2015, all types of paper consumption is increasing, as well as the packadging industry (5,7%). Following the European trend we see companies investing on capacity and technological innovation.

Finally, half of the Spanish paper production is sold to foreign countries and 80% of raw materials are locally sourced, due to an adoption of vertical integration.

4.2. Eucalyptus Pulp Industry (BEKP – Bleached Eucalyptus Kraft Pulp)

We are facing a price decrease in the BEKP market due to three important factors. The first factor is related with the start up of CMPC’s plant which increased the market supply in 3,5%. Being China responsible for 45% of the worldwide consumption of BEKP, the second factor is connected with the demand slowdown by the Chinese economy. Finally, the third factor is related with the substitution effect between hardwood and softwood.

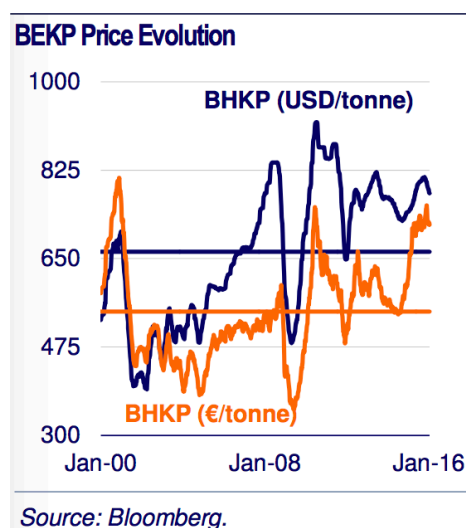


EXHIBIT 10: "BEKP PRICE EVOLUTION"

Source: BPI ER.

2016 was characterized by a huge increase in the BEKP supply with the CMPC plant in Brazil adding around 1,0 mn tonnes of new capacity to the market. At the same time, two additional plants were build, first in Brazil (Klabin) with an added capacity of 1,1 mn BEKP tonnes and the second in Indonesia (APP) adding 2 million tones capacity to the industry.

For the future we will face more challenges since 2 additional plants construction is expected. One in Três Lagoas which will add 1,8 mn tonnes and another in Eldorado which will add 2,4 mn tonnes of BEKP which will be a major challenge for the industry balance.

Gross BEKP Market Capacity Addition (k tonnes) ⁽¹⁾

	Guaiba (Brazil)	Ortigueira (Brazil)	APP (Indonesia)	Três Lagoas (Brazil)	Eldorado (Brazil)	Lwarcel (Brazil)	Capac. addition
2015	325	n.a.	n.a.	n.a.	n.a.	n.a.	325
2016	975	275	500	n.a.	n.a.	n.a.	1 750
2017	0	825	1 500	n.a.	n.a.	n.a.	2 325
2018	0	0	0	1 313	575	200	2 088
2019	0	0	0	438	1 725	600	2 763
Installed Capacity	1 300	1 100	2 000	1 750	2 300	800	9 250

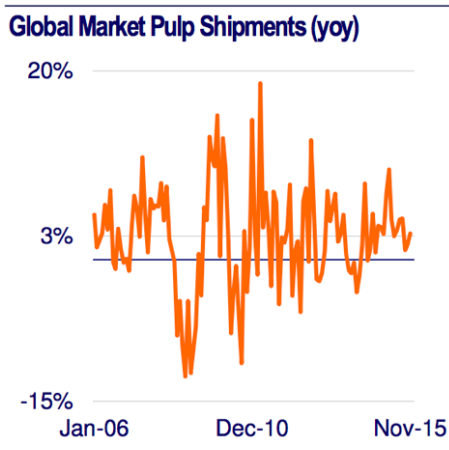
(1) assuming a 6M ramp-up period at an average 50% utilization rate

Source: BPI Equity Research.

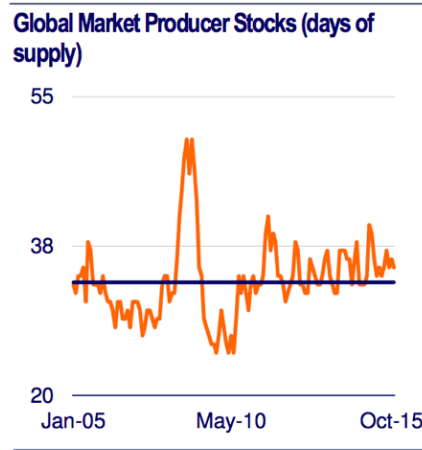
EXHIBIT 11: " GROSS BEKP MARKET CAPACITY ADDITION"

Source: BPI ER.

The BEKP demand is expected to continue to decrease due to the Chinese GDP slowdown in 2016. Looking at the Global Market Pulp Shipments and Global Market Producer Stocks (days of supply) it is possible to see a coming stability.



Source: RISI.



Source: RISI.

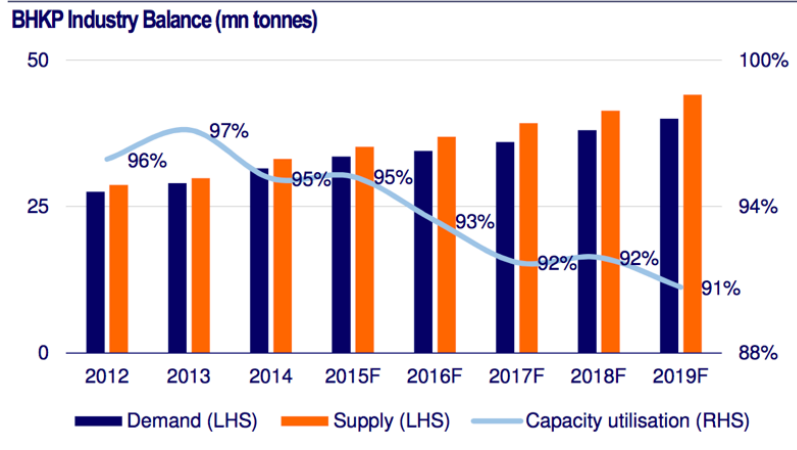
EXHIBIT 12: "GLOBAL MAR SHIPMENTS"

Source: BPI ER.

EXHIBIT 12: "GLOBAL MARKET PRODUCER STOCKS"

Source: BPI ER.

In terms of the BHKP industry balance, according to the graphic we see an increase on the supply that exceeds the demand requirements, leading to a capacity utilization of 91%.



Source: Companies and BPI Equity Research.

EXHIBIT 13: "BHKP INDUSTRY BALANCE"

Source: BPI Equity Research

In conclusion, it is important to say that 2016 was characterized by an increase on capacity installed which exceeds the demand and the Chinese GDP slowdown. In the following years, most probably we will see a price recovery due to an increase on the demand.

4.3. Paper Prices

2016 was characterized by a fall in the paper prices which was offset by volume and commercial improvements in most of the paper and packaging companies. The market situation is very favourable and sustainable with the paper prices increase announcement in 2017.

On the Kraftliner and Testeliner prices we can observe a price stability when comparing to past years. From 2007 to 2010 both paper types suffered a huge drop in prices due to the global financial crisis.

In 2011 Containerboard prices start demonstrating a very positive recover followed by some stability.

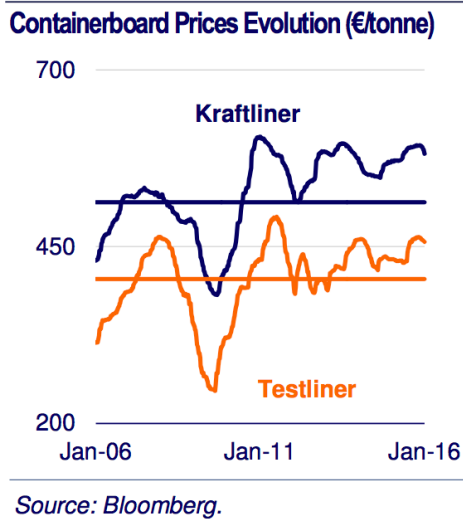


EXHIBIT 14: " CONTAINERBOARD PRICE EVOLUTION

Source: BPI Equity Research.

4.3.1. Kraftliner

The Kraftliner average sales prices in 2016 fell by 4,6% as it is possible to see in the exhibit bellow. In this context, companies in this industry will be impacted negatively on sales unless they offset with sales volume increases.

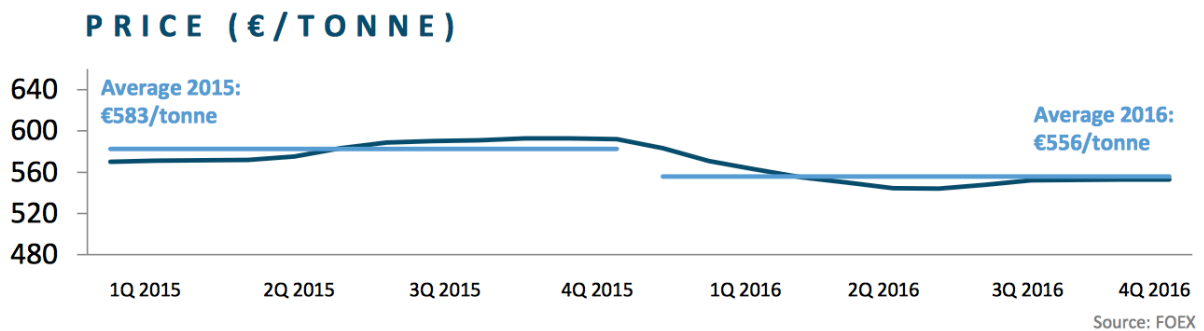


EXHIBIT 15: " KRAFTLINER PRICE EVOLUTION"

Source: Investor Relations.

Although Kraftliner prices fell, the demand for this paper stood solid as it is possible to see at the BKL Shipments in Europe exhibit below. The annual growth rate for this type of paper was 4,5% in 2016 according to WCO and this trend is reflected in the order books.

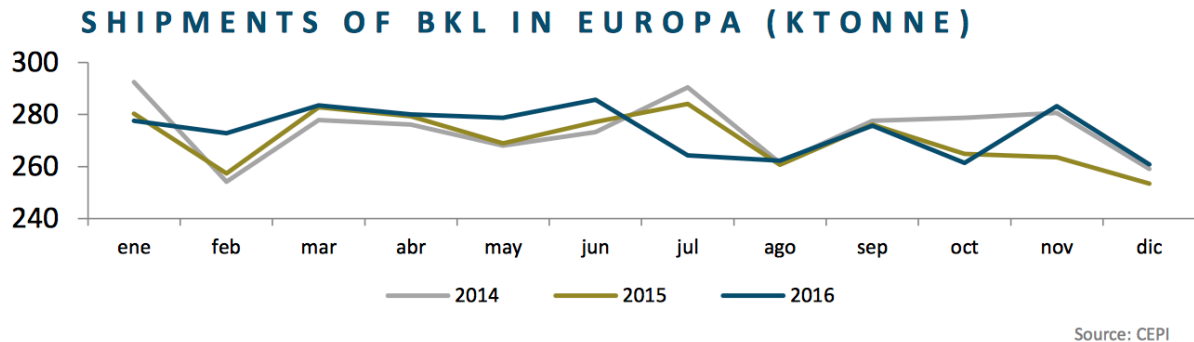


EXHIBIT 16: " BLEACHED KRAFTLINER SHIPMENTS"

Source: Investor Relations.

Moreover, it is expected a Kraftliner prices and demand increase since there is a 25% structural deficit in Europe for this kind of paper and only 5 manufacturers producing. This makes Europac able to improve its revenues on this type of paper.

4.3.2. Testeliner 2

The Testeliner average sales prices also fell in 2016 by 2,4% as it is possible to see in the exhibit bellow. Thus, companies which didn't offset with volume increased were impacted negatively in their sales value. According to FOEX, it is expected a price increase in this paper grade in 2017 due to some tension in the raw materials prices.

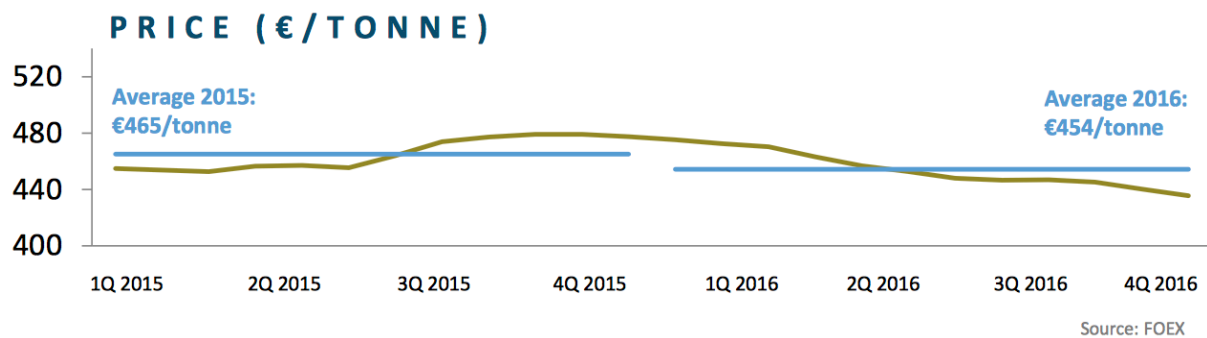


EXHIBIT 17: "TESTLINER PRICES EVOLUTION"

Source: Investor Relations.

Despite the prices negative impact, shipments for this type of paper stood solid with a demand increase of 1% in Europe.

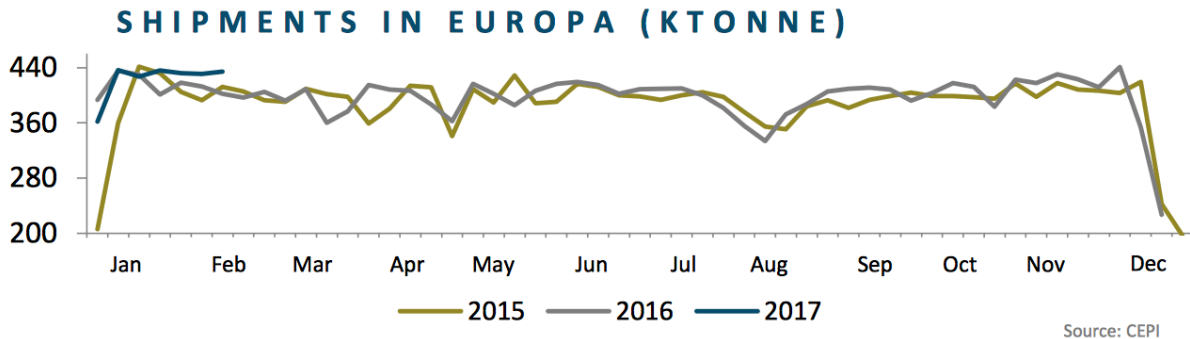


EXHIBIT 18: " TESTELINER SHIPMENTS IN EUROPE"

Source: Investor Relations.

4.3.3. Recovered Paper

The Recovered Paper Prices rose in 2016 (13€/tonne) on average as it is possible to see in the exhibit below. This was mainly due to the increase in exports to China and raw materials tension.

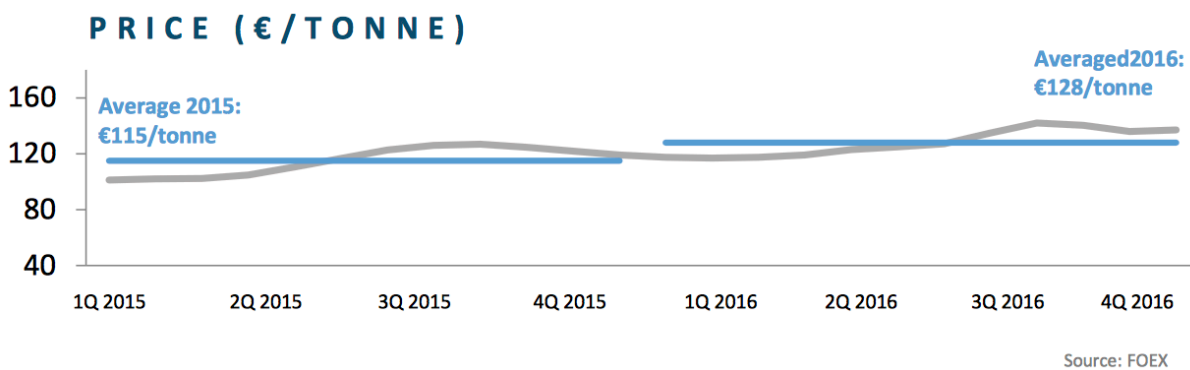


EXHIBIT 19: " RECOVERED PRICES EVOLUTION"

Source: Investor Relations.

The demand for this type of paper stays solid as it is possible to see in the export exhibit bellow. Exports to China from CEPI countries grew by 13% in 2015 and 2% in 2016.

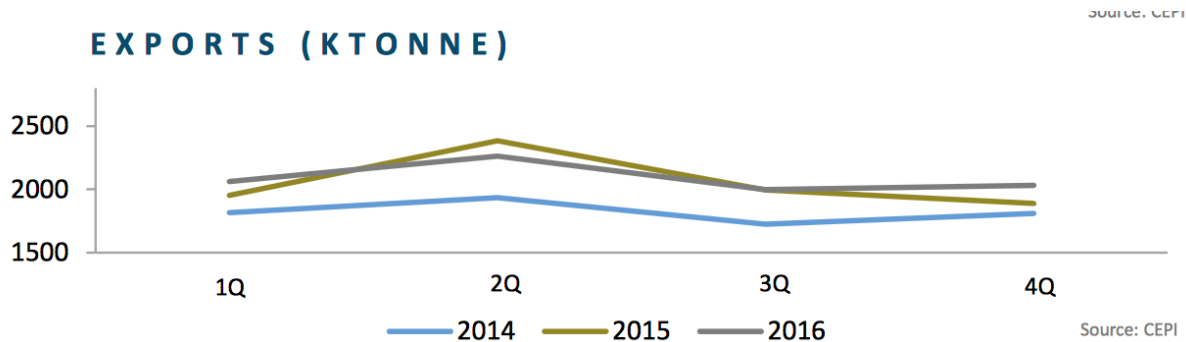


EXHIBIT 20: " RECOVERED PAPER EXPORTS"

Source: Investor Relations.

5. Strategy

Europac strategy is based on financial soundness. Only this enables growth and commitment with financial entities and shareholders. It is visible a culture of growth focusing on the optimisation and value creation of all stages of the value chain which will contribute for success and improve profitability.

5.1. Strategy from 1998 to 2014

From 1998 (when Europac became a listed) to 2014 the company started their growth, integration and financial soundness strategy. During this period of time Europac made large investments on capacity, expanding its production and purchased around 24 facilities in all business sectors.

The company expanded beyond national borders to Portugal, France and Morocco diversifying its products and services. Synergies made improved all stages of the value chain and operations, creating enough resources to finance investments without risking financial soundness.

The image illustrate Europac's historical investments and how did it impacted Europac's revenue in terms of growth.

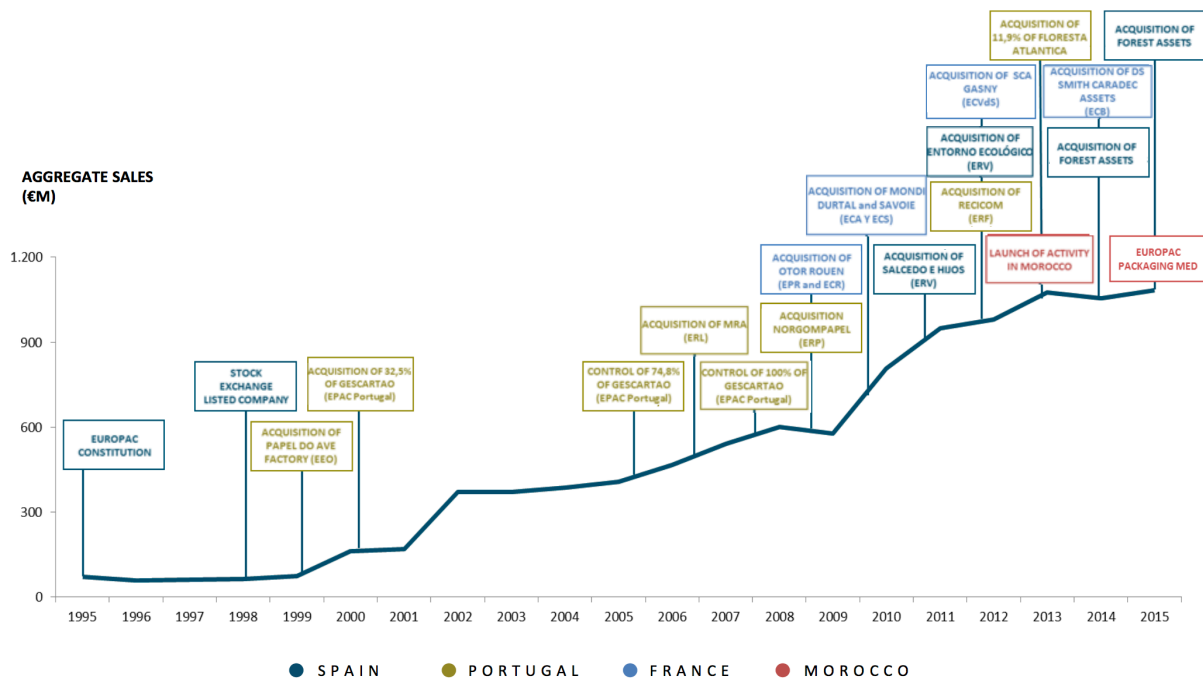


EXHIBIT 21: "EUROPAC REVENUES EVOLUTION AND INVESTMENTS"

Source: Investor Relations.

5.2. Strategy after 2014

At the early 2015, Europac group changed its previous strategy and became more focused in three objectives: margins increase, debt reduction and ROCE improvement.

Finishing the investment process, Europac became one of the most important players in the market and it was time to engage in a consolidation process. Its priority became profitability improvements in each business process along with shareholders remuneration. Thus, they set 3 target to meet until 2018 which are: 16% on EBITDA margin, Net Debt/EBITDA ratio 2x and ROCE increase between 14% and 16%.

Earnings will grow due to an expected facility efficiency, fewer maintenance and investments costs. The expected improvement on the mixed paper quality, production machines efficiency and improved productivity will impact the EBITDA margin due to the cost reduction. Finally, the anticipated positive profits, reduction in financial costs and stability on working capital will improve Europac's FCFs.

6. Value Chain

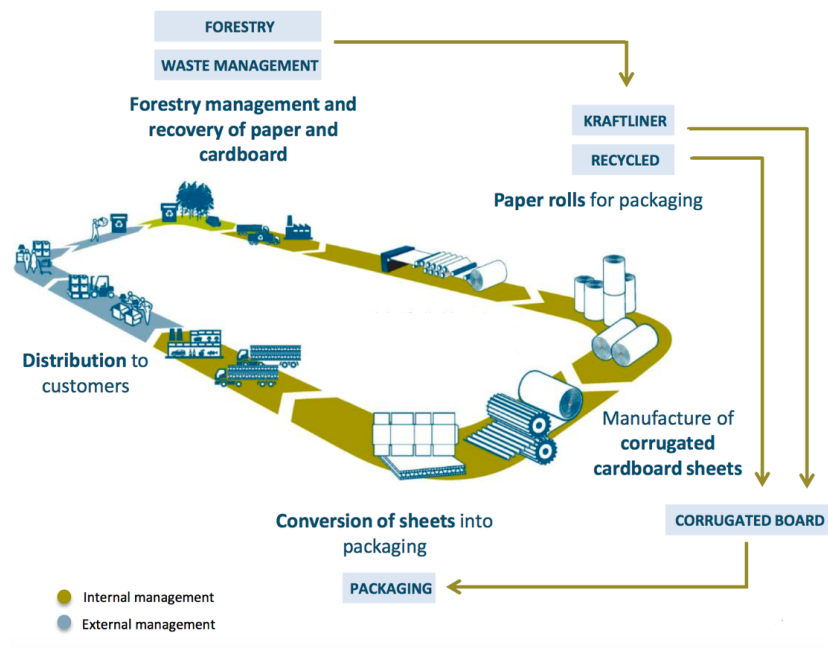


EXHIBIT 22: "EUROPAC'S VALUE CHAIN"

Source: Investor Relations.

The integrated business model focused on internationalisation and presence in the entire value chain of packaging comes up with many advantages such as: exposure reduction to market cycles and country based risk, the global market is converted into a local market since the company is self-sufficient in terms of raw materials which allows Europac to create value in each process of the value chain.

Europac has the following 5 business lines: waste and forestry management (raw material), paper, cardboard and packaging and innovation business lines. The raw materials supply comes from the forestry management and recovery of paper and cardboard line which the company uses for the production of paper rolls for packaging. The next steps of the business line regards the manufacture of the corrugated cardboard sheets transformed into packages which are finally distributed to customers.

The diverse portfolio of products and services with a wide range of paper for packaging makes this company one of the top five kraftliner, white and brown liners providers in Europe.

In the paper business line, Europac sells one of the widest range of papers for packaging on the market. Europac has five paper production factories across occidental Europe: three in Spain (Dueñas and Alcolea de Cinca), one in Portugal (Viana do Castelo) and one in France (Rouen). The Spanish and Portuguese factories are supported with an energy facility for the paper production.



EXHIBIT 23: " GEOGRAPHIC POSITION OF PAPER FACILITIES"

Source: Investor Relations.

A production capacity of 1,050,000 tonnes per year of paper makes Europac one of the biggest paper producers in Europe. Studies show that there is a big mismatch between supply and demand from kraftliner paper, containing incredible properties to humid environment which is ideal for boxes. The paper quality has been improved in the past years due to Europac's continuous investment on this variable.

The recovered paper and cardboard business line is integrated in waste management centers, three of them located in Portugal and two of them in Spain and named Europac Recicla.

Europac also offers a destruction service for confidential information which adds value to the business line.

These infrastructures comply with European Union principle of proximity in a way that the recovering waste facilities are close to its source in order to minimize environmental impact.

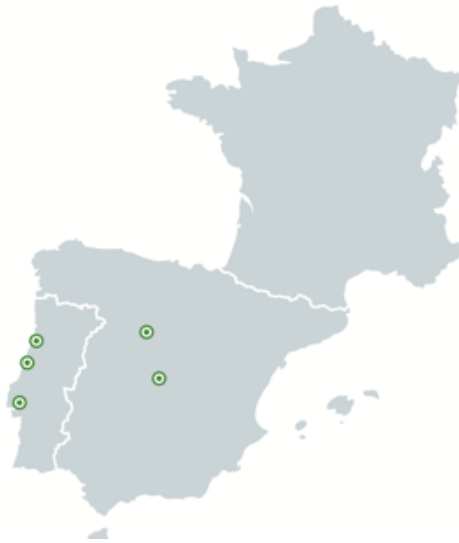


EXHIBIT 24: "GEOGRAPHIC POSITION OF WASTE MANAGEMENT FACILITIES".

Source: Investor Relations.

In order to guarantee the raw materials supply, Europac integrates forestry management in its business line. This not only adds value to the chain but also enables the company to improve control and efficiency over the raw materials, managing an area of 7,000 hectares (values from 2015).

Regarding the packaging business line, Europac group has 14 industrial facilities which produce corrugated cardboard sheets. About 68% of the packaging is canalized to agri-food industry which is very important in the French market. Europac's last major investment was in a new packaging facility in Morocco which boosted the activity and was aligned with Europac's geographic proximity strategy.

The investment in digital printing created a competitive advantage for Europac since it represents a differentiation factor. This brings new printing possibilities for the costumers which adds value to the company.

Thus, the new digital printer together with an efficient capacity to produce packadges makes it possible to meet the new world costumers needs, providing innovative solutions.

Finally, the last business line is connected with innovation. Indeed, innovation has become very important for the group in a way that it is responsible for creating innovative solutions that can differentiate Europac from its competitors.

7. Valuation Methodology

This chapter is about all the methodology used to value Europac Group. Thus you will find Europac's valuation using 2 different approaches: DCF approach (FCFF model) and Multiples approach (EV/EBITDA and PE). An additional model was tested and you may find it in the appendix (Dividend Discount Model).

For the Paper and Packaging business I used the FCFF Model because it is conceptually correct and one of the most used models given its reliability. It works very well for companies that manage their capital structure to a target level and the tax shields effect is reflected on the discount rate wacc. For this model, I constructed a base, optimistic and pessimistic scenarios with the respective probabilities to reach a YE16 price. In the base scenario sales change according to the forecasted paper prices whereas on the pessimistic scenario there is a 2% decrease on the base scenario sales value. Finally, in the optimistic scenario there is a 2% increase on the base scenario sales value and constant forecasted ratios.

In the appendix you may find an alternative approach which is the Dividend Discount Model. Since the company distributes dividends and wants to increase its shareholder commitment with a payout ratio of 50%, I decided to test this model.

In terms of relative valuation, the first step was to define a peer group that has similar characteristics with Europac. The most common multiples used in this industry are: EV/EBITDA and P/E.

Since EV/EBITDA is a very popular and reliable multiple used in this industry and is not directly affected by the capital structure of the firm, I decided to use for Europac valuation.

The P/E multiple is commonly used to value cyclical businesses such as the paper industry, links the company value to profit and is very easy to compute. However, this multiple is very sensitive to capital structure changes and nonoperating items.

Europac's business strategy changed from growth to consolidation in 2014 which means the historical data analyses required attention given the different strategies and cyclicity of the business.

The explicit period of this valuation becomes fundamental in this type of business, indeed we are talking about a cyclical company, therefore we should understand in what stage of the cycle

we are. Hence, when analysing the historical years one realised that the upward cycle finished in 2017. Therefore I used a 7 years explicit period, this is, I will forecast cashflows from 2017 to 2023 in order to include at least one cycle of the company.

In order to take Europac's historical financial statements data I used Thomson Reuters and Bloomberg because of its reliability.

7.1 Valuation Assumptions

7.1.1. Balance Sheet Forecasting Ratios and Assumptions

In order to forecast balance sheet line items I decided to built the necessary assumptions and forecasting ratios using the last 4 years historical data for the majority of the lines so that I could include an entire cycle.

Forecasting Ratios	2013	2014	2015	2016	Average
Cash/ Total Revenue				0,06	0,06
Cash & Equivalents/ Total Revenue	0,03	0,02	0,01	0,06	0,03
Short-Term Investments/ Total Revenue	0,001	0,001	0,002	0,003	0,001
Account Receivable - Trade,net/(Total Revenue/365)	27,85	27,78	36,33	40,19	30,66
Total Inventory/(Cost of Revenue/365)	74,55	75,23	72,37	72,81	74,05
Property Plant Equipment Total- Net/ Total Revenue	0,82	0,86	0,85	0,86	0,84
Intangibles - Net/Total Revenues	0,01	0,01	0,01	0,01	0,01
Long Term Investments/Total Revenue	0,01	0,01	0,01	0,02	0,01
Other Long-Term Assets, Total/Total Revenue	0,07	0,08	0,07	0,07	0,07
Accounts Payable/ (Cost of Revenue/365)	143,78	145,16	148,72	161,04	145,89
Other Current liabilities, Total/Total Revenue	0,04	0,03	0,06	0,06	0,05
Deferred Income Tax/Total Revenue	0,08	0,08	0,08	0,08	0,08
Other Liabilities, Total/ Total Revenue	0,02	0,02	0,03	0,03	0,03
Treasury Stock - Common	Assumed value constant at 5 million.				-5,00
Other Equity, Total	Average Last four years.				-2,10

EXHIBIT 25: "BALANCE SHEET FORECASTING RATIOS"

For the operating cash I computed the 2016 ratio for the forecasted period because Europac has been reducing this line to values close to 50 Million euros and, according to public information they will maintain similar balances in the future. Cash & Equivalents and Short-Term investments were forecasted as a percentage of revenue.

For the Accounts Receivable I computed the number of days receivables were outstanding in the last 4 years and then computed an average for the future years. This item forecast was obtained by multiplying the average times the sales per day of the respective year.

Total Inventory and Accounts Payable line items were forecasted in a similar way by dividing the past 4 years respective values by the cost of revenue per day and then creating an average. Given the averages, this lines items were forecasted by multiplying the average for the cost of revenue per day of the respective year.

In order to forecast Property Plant Equipment Total – net I used an average of the last 4 years ratio. Assuming disposals and transfers values constant for the forecasted period, I was able to compute the accumulated depreciation as shown in the exhibit below. Given both PPE-Net and the Accumulated Depreciation I was able to compute the PPE-Gross values.

Accumulated Depreciation, Total	Historical Data				Forecasted Data						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Beginning Depreciation	628,1	670,1	712,3	758,3	805,5	853,5	899,9	945,6	992,2	1037,4	1081,0
Plus Additions	45,2	47,3	48,9	50,0	50,8	49,2	48,6	49,4	48,0	46,5	
Less Disposals	3,3	2,4	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	
Less Transfer	0,0	2,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Accumulated Depreciation Year End	628,1	670,1	712,3	758,3	805,5	853,5	899,9	945,6	992,2	1037,4	1081,0

EXHIBIT 26: "BALANCE SHEET ACCUMULATED DEPRECIATION"

Intangibles-Net, Long Term Investments, Other Long-Term Assets, Other Current liabilities, Deferred Income Tax and Other Liabilities were forecasted based on the past 4 years ratio with total revenues.

Line items such as Other Current assets and accrued expenses were assumed to zero in the following period looking at the historical data.

Goodwill is assumed to be constant in the forecasted period and according to public information Minority interests and Notes Payable/Short term Debt will be zero in the forecasted period.

Notes Payable/Short Term Debt is assumed to be zero because the company has enough cash to pay it at once.

Current Port. of LT Debt & Capital Leases is based on Bank borrowings and ADE grant payment plan presented below.

Portion of LT Debt Payment Plan	2017	2018	2019	2020	2021	2022	2023
Bank Borrowings	38,49	21,95	36,49	40,14	52,81	91,75	91,75
Other (ADE Grant)	10,06	11,45	10,56	8,88	5,55	5,55	5,55
Total	48,55	33,40	47,05	49,02	58,36	97,30	97,30

EXHIBIT 27: "PORTION OF LT DEBT PAYMENT PLAN"

Souce: IR.

The Total Debt line is forecasted based on public information regarding Net Debt/EBITDA ratio forecasts.

Total Long Term Debt value is the difference between Total Debt and Current Port. of LT Debt & Capital Leases.

Total Value of Debt	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Notes Payable/Short Term Debt	2,5	1,5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Current Port. of LT Debt/Capital Leases	57,3	66,0	60,5	48,55	33,40	47,05	49,02	58,36	97,30	97,30
Total Long Term Debt	397,6	367,0	377,0	295,07	275,32	209,50	211,93	199,40	154,92	152,72
Total Value of Debt	457,40	434,50	437,48	343,62	308,72	256,55	260,96	257,76	252,22	250,02
Cash and Cash & Equivalents	108,80	89,90	94,77	78,53	76,05	75,06	76,35	74,18	71,84	73,14
Net Debt	348,60	344,60	342,71	265,09	232,67	181,50	184,61	183,58	180,38	176,88
Net Debt/EBITDA	3,81	3,10	2,71	2,00	2,00	1,70	1,70	1,70	1,70	1,70

EXHIBIT 28: "TOTAL VALUE OF DEBT"

Finally, Shareholders' Equity was forecasted based on the following assumptions: Common Stock will be constant assuming zero capital increases in the future; In Additional Paid-In Capital I assume that shareholders won't contribute in excess of par value of common stock in return for shares issued; In Unrealized Gain (Loss) I assume zero unrealized/revaluation gains (losses) reported in the Equity for the Forecasted period;

Retained earnings were computed as explained in the exhibit below, assuming Payout over net profit of the previous year and dividend amount as shown below.

	2016	2017	2018	2019	2020	2021	2022	2023
Retained Earnings								
Begin Retained Earnings		209,0	240,7	252,5	265,9	287,9	309,7	322,5
Add profit		61,0	48,5	42,5	47,5	50,3	42,9	42,5
Less Dividends		29,3	36,6	29,1	25,5	28,5	30,2	25,7
Others		0,0	0,0	0,0	0,0	0,0	0,0	0,0
End Retained Earnings		209,0	240,7	252,5	265,9	287,9	309,7	339,2

EXHIBIT 29: "RETAINED EARNINGS EVOLUTION"

Dividends	2015	2016	2017	2018	2019	2020	2021	2022	2023
Payout Ratio	50%	60%	60%	60%	60%	60%	60%	60%	60%
Earnings (Million €)	32,40	48,90	53,85	44,83	37,12	38,88	39,00	43,10	37,28
Dividend	16,20	29,34	32,31	26,90	22,27	23,33	23,40	25,86	

EXHIBIT 30: "DIVIDENDS FORECAST"

For simplicity purposes, treasury stock is assumed to be constant at 5 million and other equity is forecasted based on the past 4 years average.

7.1.2. P&L Forecasting Ratios and Assumptions.

For the P&L statement (base, pessimistic and optimistic scenarios) I computed the required ratios based on the past 4 years for the majority of the lines.

Forecasting Ratios	2013	2014	2015	2016	Average
Cost of revenue/Total Revenue	0,50	0,51	0,50	0,50	0,51
Selling, General, Admin.Expenses/ Total Revenue	0,16	0,17	0,18	0,18	0,17
Depreciation/ Prior Year Net property, plant and equipment	0,07	0,07	0,07	0,07	0,07
Unusual Expense (Income)	Average of the last 4 historical years.				█ -0,60
Other Operating Expense/Total Revenue	0,20	0,20	0,19	0,17	0,19
Interest Expense, Net Non-Operating				0,03	█ 0,03
Interest Income - Non-Operating/ (Short-Term Investments+Cash&Equivalents)	0,018	0,010	0,017	0,002	0,012
Investment Income - Non-Operating/ Long Term Investments	0,08	0,07	0,05	-0,03	0,04
Other, Net	Average of the last 4 historical years.				(0,3)

EXHIBIT 31: " P&L FORECASTING RATIOS"

For the revenues (base scenario) I didn't have access to production volumes, hence I assumed the company is working at full capacity and Revenues are driven by the fluctuation on the Kraft, Testliner and Revorered paper prices. For this reason, base scenario revenues change only according to the forecasted average change in paper prices. In the pessimistic scenario, revenues are assumed to be 2% lower than the base scenario, everything else remaining constant. By contrast, in the optimistic scenario, revenues are assumed to be 2% higher than the base scenario.

The Cost of Revenue was computed using an average of the past 4 years ratios times a reduction factor so that the company meet the EBITDA margin objectives and replicate the margins volatilities. This assumption is aligned with their commitment on improving efficiency in the paper production.

SGA and Other Operating Expense were forecasted using Total Revenue as a main driver for the average ratio.

The Depreciation forecasted ratio was computed using the Prior Year NET PPE as a driver and afterwards I used the average of the past 4 years for the forecasted period.

For the Unusual expenses (income) and Other – Net I used the average of the past 4 years values for simplicity.

In terms of financial expenses and incomes I used the following assumptions: Interest Expense, and for the Net Non-Operating I used the historical interest rates to forecast interest expense because is a simple, straightfoward estimation method. And, since interest expenses will not affect the FCFE they will also not affect the company valuation. For the Interest income and Investment Income I used short-term investments plus Cash&Equivalents and Long term investments.

Regarding EBITDA margin, it will meet the 16% objective in 2017 and in the following years it is expected to maintain the margin between 13,5% and 15% replicating the industry volatility.

The effective tax rate is assumed to be 25% in the explicit period and Gain (Loss) on Sale of Assets are assumed to be zero according to public information.

7.1.3. Europe Kraftliner, Testliner and Recovered Paper Prices

7.1.3.1 Kraftliner

The Forecasted prices replicate the past 4 years fluctuations as it is predicted some stability as observable in the exhibit below. YE17 price equal to 556€ plus 40€ price increase announcement by FOEX.

Kraftliner	Forecasted Prices											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
EUR/Ton	584,12 €	574,89 €	568,84 €	589,93 €	556,00 €	576,61 €	567,50 €	561,53 €	582,35 €	548,86 €	540,18 €	534,50 €
% change		-0,02	-0,01	0,04	-0,06	0,04	-0,02	-0,01	0,04	-0,06	-0,02	-0,01

Historical Values Source: FOEX Indexes Ltd

EXHIBIT 32: "KRAFTLINER PAPER PRICE FORECASTS"

7.1.3.2. Testeliner

The Forecasted prices replicate the past 3 years fluctuation and stability is predicted in the testliner prices. YE 2017 Price equal to 454€ plus the 40€ price increase announcement according to FOEX data.

Testliner 2	Forecasted Prices										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
EUR/Ton	479,76 €	456,38 €	476,74 €	454,00 €	474,25 €	451,14 €	429,16 €	448,30 €	426,92 €	406,11 €	424,23 €
% change		-0,05	0,04	-0,05	0,04	-0,05	-0,05	0,04	-0,05	-0,05	0,04

Historical Values Source: FOEX Indexes Ltd

EXHIBIT 33: "TESTELINER 2 PAPER PRICES EVOLUTION"

7.1.3.3. Recovered Paper

Due to forecasted stability in this prices I assume they will vary between 2% and -3% as it can be seen in the exhibit below.

Recoverd Paper	Forecasted Prices											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
EUR/Ton	108,95 €	112,81 €	100,95 €	118,36 €	131,85 €	134,49 €	130,45 €	133,06 €	129,07 €	131,65 €	127,70 €	130,26 €
% change		0,04	-0,11	0,17	0,11	0,02	-0,03	0,02	-0,03	0,02	-0,03	0,02

Historical Values Source: FOEX Indexes Ltd

EXHIBIT 34: "RECOVERED PAPER PRICES EVOLUTION"

7.1.3.4. Average Change

The exhibit below showcases the average change on prices which are used to estimate the change in the forecasted revenues.

Average Change in Forecasted Prices						
2017	2018	2019	2020	2021	2022	2023
0,034	-0,032	-0,013	0,017	-0,028	-0,032	0,018

EXHIBIT 35: "FORECASTED AVERAGE CHANGE ON PAPER PRICES"

Source: FOEX Indexes.

7.1.4. Capital Expenditure and Net Working Capital

The Capital Expenditure is forecasted using the following formula:

$$Capex = Net PPE_T - Net PPE_{t-1} + (Accummulated Dep_t - Accumulated Dep_{t-1})$$

According to public information Capex will be close to depreciation values.

<i>Reported in Million €</i>	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Capital Expenditure	43,9	59,3	53,1	58,1	26,0	37,6	57,2	27,3	24,4	55,1
Change in Capital Expenditure	0,90	0,35	-0,10	0,09	-0,55	0,44	0,52	-0,52	-0,11	1,26

EXHIBIT 36: " FORECASTED CAPITAL EXPENDITURE "

Regarding NWC, Europac believes it will become stable over the explicit period.

<i>Reported in Million €</i>	Historical Values			Forecasted Values						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Increase (Decrease) in Operating Cash	6,2	-9,9	-29,1	1,7	-1,6	-0,7	0,9	-1,4	-1,6	0,9
Increase (Decrease) in Accounts Receivables	-2,2	21,2	8,0	-18,6	-2,2	-0,9	1,1	-1,9	-2,1	1,1
Increase (Decrease) in Inventory	-0,5	-2,4	-0,6	1,7	-0,9	1,4	1,4	-3,2	-4,1	3,7
(Increase) Decrease in Accounts Payable	0,9	-5,4	-11,1	15,8	1,8	-2,7	-2,8	6,2	8,0	-7,4
(Increase) Decrease in Accrued Expenses	1,8	21,6	0,0	-15,8	0,5	0,2	-0,3	0,4	0,5	-0,3
(Increase) Decrease in Other Current Liabilities	7,7	-27,1	0,2	13,9	1,2	0,5	-0,6	1,1	1,1	-0,6
Change in NWC	13,9	-2	-32,6	-1,3	-1,3	-2,2	-0,2	1,2	1,9	-2,5

EXHIBIT 37: " FORECASTED CHANGE IN NWC "

7.1.5. Nonequity Claims

Europac Market Value of Debt	
<i>Reported in Million €</i>	2016
Current Liabilities	
Bank Borrowings	32,22
Syndicated Loans	0,00
Credit Facilities	0,13
Other Loans	30,53
Financial Leases	0,16
Short-Term interest with banks	1,40
Bonds and Other negotiable securities	0,00
Derivatives	0,00
Other Financial Liabilities	28,27
Non-Current Payables to fixed asset suppliers	22,11
Other Payables	6,16
Current Liabilities Total	60,49
Non-Current Liabilities	
Bank Borrowings	358,02
Bonds and Other negotiable securities	0,00
Derivatives	1,88
Other financial Liabilities:	68,25
Non-Current Payables to fixed asset suppliers	12,98
Other	55,26
Non-Current Liabilities Total	428,15
Total Market Value of Debt	488,64

EXHIBIT 38: "MV OF DEBT"

Current Liabilities equal to book values because I defend it is a good approximation to market values. By contrast, Bank Borrowings equal the discounted interest payments and principal repayment at R_d (Market Cost of Debt) and Other at Other Financial Liabilities represents the

market value of a grant received by (ADE) discounted at Rd. Below it is possible to find the computations for these values.

Maturities of the Bank Borrowings	2016	2017	2018	2019	2020	2021	2022 and other
<i>Reported in Million €</i>		38,49	21,95	36,49	40,14	52,81	183,505
Discount Factor (Rd)		0,98	0,96	0,97	0,96	0,95	0,93
Present Value		37,79	21,15	35,28	38,37	49,92	171,50
Market Value of Bank Borrowings	354,01						
Interest Expense		0,44	0,25	0,41	0,46	0,60	2,08
Discount Factor (Rd)		0,98	0,98	0,97	0,96	0,95	0,93
Present Values		0,43	0,24	0,40	0,44	0,57	1,94
Interest	4,02						
Market Value of Bank Borrowings	358,02						
Other Payment Plan		10,058	11,452	10,562	8,878	8,327	8,33
Discount Factor (Rd)		0,98	0,96	0,97	0,96	0,95	0,93
Present Value		9,87	11,04	10,21	8,49	7,87	7,78
Total Value Others	55,26						

EXHIBIT 39: "MARKET VALUE OF BANK BORROWINGS AND OTHER FL"

Source: IR

Unfunded Retirement Liabilities	
<i>Reported in Million €</i>	2016
Provisions for commitments to employees	
Defined Benefit plans:	
Pension supplements with allocated funds	7,01
Retirement Benefits	8,626
Other Long -Terms Benefits	
Seniority Awards	0,611
Total	16,247

EXHIBIT 40: " UNFUNDED RETIREMENT LIABILITIES"

Source: IR.

Europac has zero capitalized operating leases, operating provisions, preferred equity, contingent liabilities and hybrid debt.

7.1.6. Capital Structure and WACC

Europac Capital Structure	
Reported in Million €	2016
Market Value of Equity YE16	479,33
Market Value of Debt YE16	410,41
Value	889,74
E/V	54%
D/V	46%

EXHIBIT 41: "EUROPAC CAPITAL STRUCTURE"

Market Values of Equity equals closing share price at 31/12/2016 times shares outstanding and
 Market Value of Debt equals Nonequity claims minus Cash & equivalents

Given that Europac operates in the paper & packadging industry, the figures I used for the cost of capital are as shown in the exhibit below.

My Estimation	P&P
Re (Cost of Equity)	8,83%
Rf	1,60%
CRP (County Risk Premium)	2,71%
Beta Equity	0,81
MRP (Market Risk Premium)	6,20%
Rd (Cost of Debt)	1,13%
Debt-to-Value (D/V)	46%
Equity-to-Value(E/V)	54%
Tax Rate	27%
WACC	5,14%
g	1,00%

EXHIBIT 42: "EXPECTED COST OF CAPITAL"

Source: Fernandez, Damodaran, Reuters And Investor Relations.

The Re was computed based on 10 years Spanish Government Bond which, estimated beta equity, MRP taken from Pablo Fernandez and CRP taken from Damodaran. The Spanish Government Bond although not risk-free, has extremely low betas.

The Beta Equity was a figure computed using a linear regression where I end up with a raw beta. This figure represents the behaviour between stock's last five years monthly returns and IBEX 35 index last five years monthly returns.

In the table below you will find the Adjusted Beta so that it better measure Europac's stock future beta. Thus, the formula used to adjust the beta was $0,67 \times \text{RawBeta} + 0,33 \times 1$ (BLUME Formula).

Beta Regression		Raw beta	Adjusted Beta (BLUME Formula)
Beta	Slope	0,72	0,81
Alpha	Intercept	0,01	

EXHIBIT 43: "BETA REGRESSION (BLUME FORMULA)"

Source: Reuters.

The cost of debt is indexed to Euribor 6 months plus a margin between 120 and 155 basis points and this rate represents the actual cost of financing right now.

Euribor	09/03/17
1 month	-0,372%
3 months	-0,329%
6 months	-0,241%
12 months	-0,111%

EXHIBIT 44: "EURIBOR RATES AT 9/03/2017"

Source: <http://pt.euribor-rates.eu>

Margin	1,2%	1,55%
Average	1,38%	

EXHIBIT 45: "MARGIN POINTS IN ADDITION TO EURIBOR"

Finally, the P&P market has been growing below GDP in the past 3 years, therefore, I assume the P&P growth rate in 2023 will be as a proportion of the GDP 2013 growth rate.

7.1.7. GDP and P&P Growth Rates

Gross Domestic Profit Annual Growth				Forecasted Period						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Occidental Europe										
Spain	1,36%	3,21%	2,80%	2,31%	2,21%	2,21%	2,21%	2,21%	2,21%	2,21%
Portugal	0,91%	1,45%	1,16%	1,16%	1,27%	1,20%	1,20%	1,20%	1,20%	1,20%
France	0,26%	1,16%	1,23%	1,29%	1,35%	1,30%	1,30%	1,30%	1,30%	1,30%
Average Occidental Europe GDP Growth %	0,84%	1,94%	1,73%	1,58%	1,61%	1,57%	1,57%	1,57%	1,57%	1,57%
Marocco	2,42%	4,40%	2,3%	2,8%	3,0%	3,0%	3,0%	3,0%	3,0%	3,0%
Total Weighed Average GDP	0,92%	2,06%	1,75%	1,64%	1,67%	1,64%	1,64%	1,64%	1,64%	1,64%
Paper & Board Consumption Growth in CEPI countries	0,80%	1,10%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%	1,00%

EXHIBIT 46: " GDP AND P&P GROWTH RATES"

Source: OECD and CEPI.

Forecasted GDP is assumed to be constant from 2020 to 2023 and total average weighted by the revenue percentage per geographic region.

8. Valuation of Europac Group

8.1 Revenues

Europac's revenues from 2006 until 2015 have been growing at an percentage average of 10,2% per year, this is aligned with their expansion strategy in capacity and geography.

When we look at revenues per geographic area we find Portugal as the most relevant (43%), followed by France (33%), Spain (23%) and Morocco (0,7%), percentages from 2015.

In 2016, although there was a fall in the average paper prices, the paper division sales increased by 3,3% due to a raise on sales volume (3,1% kraftliner and 5% Testeliner) and operational and commercial improvements.

The packadging division also recorded an increase on sales in 2016, this because of an improvement on commercial and operational efficiency with new packadging solutions.

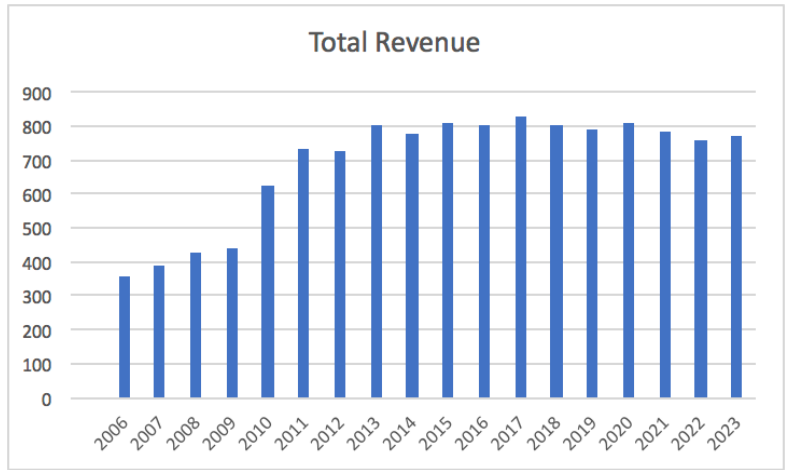


EXHIBIT 47: " TOTAL REVENUE EVOLUTION (BASE SCENARIO)"

Source: Reuters.

For the Forecasted period is possible to see some constancy due to the stability in the paper prices and machines efficiency.

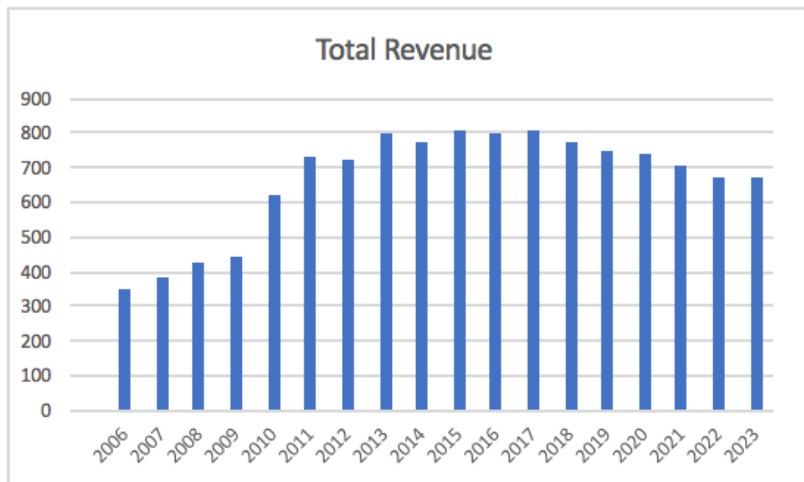


EXHIBIT 48: "TOTAL REVENUE EVOLUTION (PESSIMISTIC SCENARIO)"

Source: Reuters.

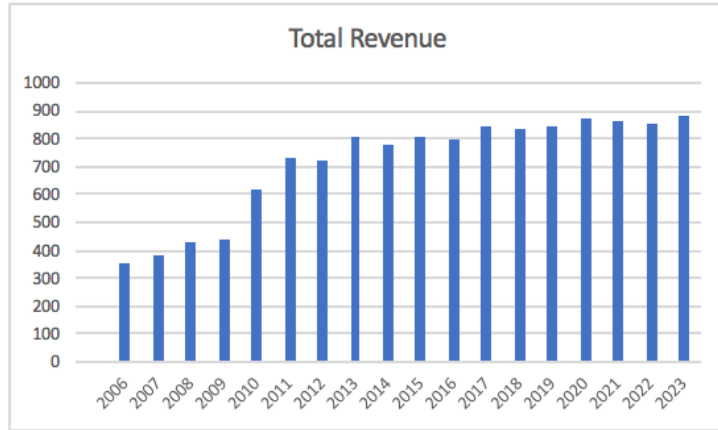


EXHIBIT 49: "TOTAL REVENUE EVOLUTION (OPTIMISTIC SCENARIO)"

Source: Reuters.

8.2. EBITDA Margin and Cost Structure

Europac EBITDA margins between 2007 and 2010 decreased significantly due to an increase on raw materials and operating expenses. In 2010 and 2011 Europac was able to improve EBITDA margin to values around 15%. This achievement was due to a considerably improvement in the recycled paper business in terms of EBITDA, as well as, demand and sales price increase.

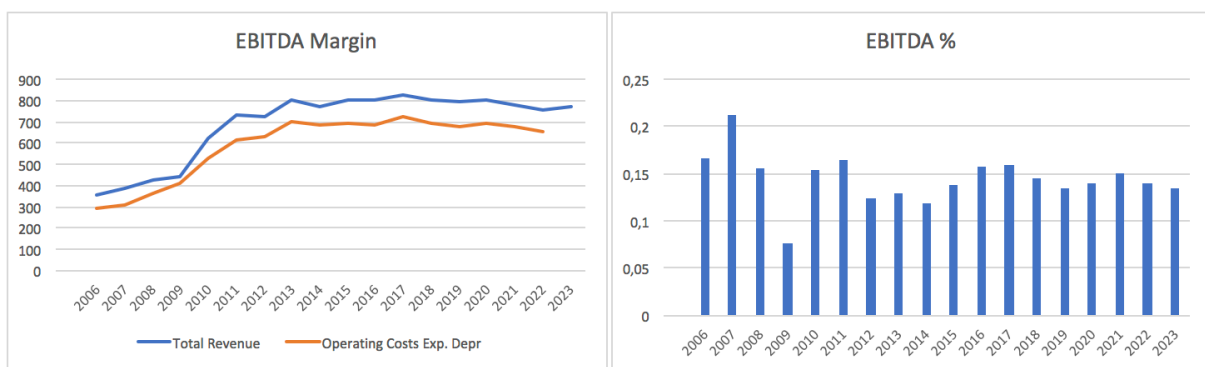


EXHIBIT 50: "EBITDA MARGIN EVOLUTION BASE SCENARIO"

The continuous capacity expansion, as well as, the efficiency improvement contributed to higher margins. Thus, we can say that the EBITDA margins depends, in this specific analysis on factors such as paper prices, volume and efficiency.

In 2015 the prices recovery along with demand pressure, smaller inventories and bigger production volumes led to an increase of the EBITDA margin.

Finally in 2016, there was a considerable improvement on margin 15,8% given Europac’s effort on improving machines efficiency, paper quality and commercialisation.

For the forecasted years we will expect EBITDA margins changing as explained in the assumptions above. Due to the change in strategy, Europac is committed on reducing the costs of revenue so that they can improve their profitability and margins for the future years.

The following table illustrate the operating cost structure of Europac group:

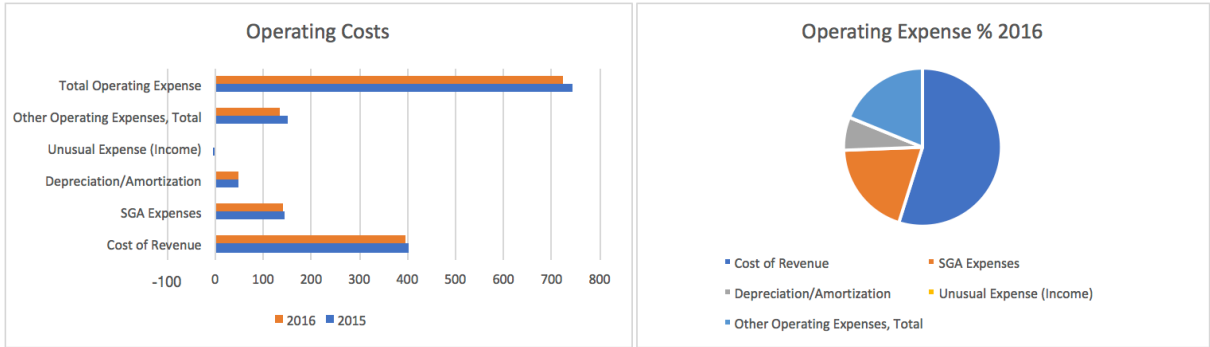


EXHIBIT 51: "EUROPAC'S COST STRUCTURE BASE SCENARIO"

As you can see the company has been committed on reducing operating costs and in 2016 it was successful reducing operational costs structure.

The most relevant costs for Europac are Costs of Revenue and Other Operating Expenses. The Costs of Revenue integrate raw materials and consumables used in the production process, therefore it makes sense to be the most relevant ones. The Other Operating Expenses incorporates many different costs being the most relevant: leases, reparation and maintenance, transport, supplies, work done externally and other external services.

The costs forecasts for the explicit period depend mainly on revenue and the cost of revenue has a reduction factor due to efficiency improvements and linked to the targeted EBITDA as already explained.

8.3. Capital Expenditure And Working Capital

From 1998 to 2014 Europac Group has been committed with a growth and integration strategy, purchasing around 24 facilities which explains some high capex values in the historical period. The resources that Europac generated were enough to finance investments without risking the financial structure and shareholders' reward.

Below, you will find Europac's capital expenditure evolution which is aligned with the past and current strategy.

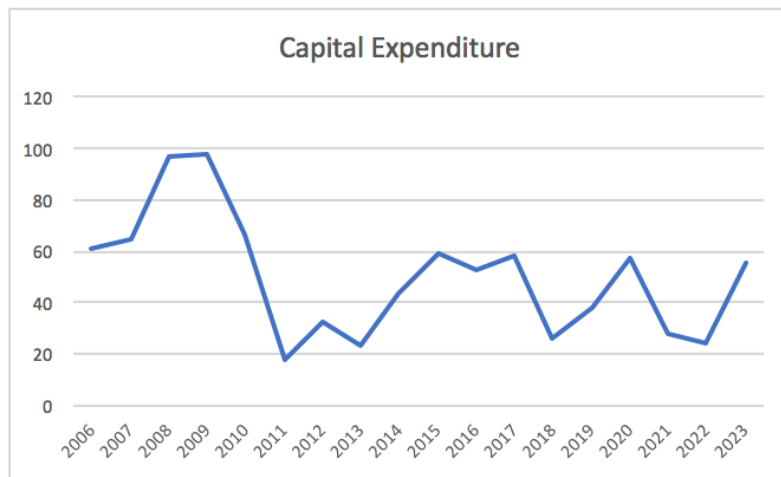


EXHIBIT 52: "EUROPAC EXPECTED CAPITAL EXPENDITURE"

In 2015, Europac concluded its investment process focusing on profitability, production process optimisation and cost of debt reduction. This explains why forecasted capital expenditure values are equal to depreciation which shows the company stability.

Before the new strategy implementation, the 3 most relevant investments in 2015 were: New Packaging Factory in Tangier (Morocco), Coated Paper Stage II in Dueñas (Spain) and Digital Printing, High-Quality Printing and Die Cutter in Dueñas, Guilhabreu and Leira.

Expressed in the exhibit below and according to public information the Changes in Working Capital will be stable due to the company consolidation commitment.

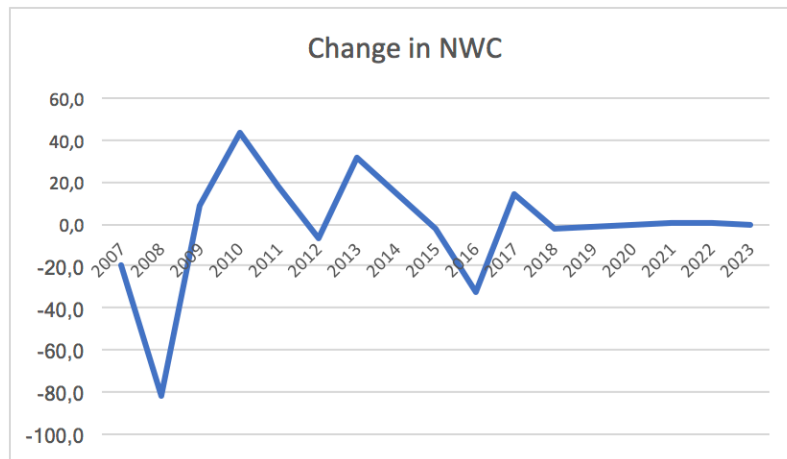


EXHIBIT 53: "EUROPAC EXPECTED CHANGE IN NWC"

8.4. Free Cash Flow Forecasts

When applying the FCFF Method, the first task we should make is to estimate the FCF's that Europac is expected to have in the explicit period.

In the exhibits below you can find the FCFF in the base, pessimistic and optimistic scenarios:

Free Cash Flow to the Firm							
<i>Reported in Million €</i>	2017	2018	2019	2020	2021	2022	2023
EBIT	82,51	65,50	57,53	64,17	67,96	58,09	57,55
EBITx(1-tax rate)	61,89	49,13	43,15	48,13	50,97	43,57	43,16
Depreciation	50,03	50,83	49,23	48,58	49,42	48,02	46,50
Capex	58,12	26,04	37,56	57,21	27,34	24,44	55,15
Change in working capital	14,43	-2,54	-1,62	0,84	1,48	-1,61	-0,74
FCFF	39,37	76,46	56,44	38,67	71,57	68,74	35,26

EXHIBIT 54: "FCFF BASE SCENARIO"

Free Cash Flow to the Firm							
<i>Reported in Million €</i>	2017	2018	2019	2020	2021	2022	2023
EBIT	79,88	64,76	51,29	51,62	49,68	52,81	43,90
EBITx(1-tax rate)	59,91	48,57	38,47	38,72	37,26	39,61	32,93
Depreciation	50,03	50,83	49,23	48,58	49,42	48,02	46,50
Capex	58,12	26,04	37,56	57,21	27,34	24,44	55,15
Change in working capital	14,43	-2,54	-1,62	0,84	1,48	-1,61	-0,74
FCFF	37,39	75,90	51,76	29,25	57,85	64,79	25,03

EXHIBIT 55: "FCFF PESSIMISTIC SCENARIO"

Free Cash Flow to the Firm							
<i>Reported in Million €</i>	2017	2018	2019	2020	2021	2022	2023
EBIT	85,15	74,34	64,03	68,91	71,49	80,00	72,93
EBITx(1-tax rate)	63,86	55,75	48,02	51,68	53,62	60,00	54,70
Depreciation	50,03	50,83	49,23	48,58	49,42	48,02	46,50
Capex	58,12	26,04	37,56	57,21	27,34	24,44	55,15
Change in working capital	14,43	-2,54	-1,62	0,84	1,48	-1,61	-0,74
FCFF	41,35	83,08	61,32	42,22	74,21	85,18	46,80

EXHIBIT 56: "FCFF OPTIMISTIC SCENARIO"

The effective tax rate was 27,2% in 2016 however according to public information it is expected to decrease to 25% in the following years. Since depreciation is not a cash expense, I added it to the cash flow value and subtracted the Capex. Remains only change in NWC to be subtracted and we obtain the expected FCFF.

The good and positive FCFF forecasts have been responsible for Europac's shareholders commitment. In this context, the company is able to reward the shareholders at high payout ratios.

9. Europac Group Financial Analysis

9.1 Financing Policy

9.1.1. ROCE and Invested Capital

According to the table bellow, in one hand, we observe an historical ROCE between 5% and 9%. Usually the higher this ratio the better because it means the company is using the capital employed more efficiently. According to my forecasts, Europac is going to improve this figure to 10% in 2017, however, it is still far from the objective.

Balance Sheet Financials											
<i>Values in Million €</i>	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Assets	1072,1	1078,5	1089,7	1119,3	1089,5	1060,4	1049,3	1065,0	1035,7	1009,7	1028,5
Current Liabilities	320,0	265,0	283,6	287,6	267,0	250,5	279,6	274,1	252,9	284,0	288,9
Capital Employed	752,1	813,5	806,1	831,7	822,5	809,9	769,7	791,0	782,8	725,7	739,6
EBIT	54,9	44,5	62,5	77,7	82,5	65,5	57,5	64,2	68,0	58,1	57,5
ROCE	7,3%	5,5%	7,8%	9,3%	10,0%	8,1%	7,5%	8,1%	8,7%	8,0%	7,8%
Equity	173,1	180,0	187,2	194,7	194,7	194,7	194,7	194,7	194,7	194,7	194,7
Total Debt	440,4	457,4	434,5	437,5	343,6	308,7	256,6	268,0	273,7	252,2	250,0
Invested Capital	613,5	637,4	621,7	632,2	538,4	503,5	451,3	462,8	468,5	447,0	444,8

EXHIBIT 57: "BALANCE SHEET FINANCIALS"

On the other hand, when we look at the invested capital figure we see Europac reducing its debt and improving its equity values which provides financial soundness to the company.

9.1.2. Shareholders Remuneration

In the 2016 General Shareholders's Meeting it was approved the payment of a dividend amounting 16,2 million euros over the 2015 net profit which represents a 50% payout ratio. The company complied with its shareholder remuneration policy and paid 0,1804 euros per share including the interim payment of 0,0531 euros per share.

Given the good cash flows generation, there is a proposal to increase the payout ratio to 60% in 2017.

Dividends	Forecasted								
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Payout Ratio		50%	60%	60%	60%	60%	60%	60%	60%
Earnings (Million €)	32,40	48,90	53,85	44,83	37,12	38,88	39,00	43,10	37,28
Total Cash Dividends		16,20	29,34	32,31	26,90	22,27	23,33	23,40	25,86
Shares Outstanding		91,3	91,3	91,3	91,3	91,3	91,3	91,3	91,3
DPS		0,18	0,32	0,35	0,29	0,24	0,26	0,26	0,28

EXHIBIT 58: "SHAREHOLDERS REMUNERATION"

Source: IR.

9.1.3. Debt, Interest Burden and Unfunded Retirement Liabilities

Europac Debt Structure (€ Millions) <i>Reported in Million €</i>	2014	2015	2016
Current Liabilities			
Bank Borrowings	33,60	48,64	32,22
Syndicated Loans	0,00	0,00	0,00
Credit Facilities	1,21	0,22	0,13
Other Loans	29,09	46,67	30,53
Financial Leases	0,78	0,29	0,16
Short-Term interest with banks	2,52	1,46	1,40
Bonds and Other negotiable securities	10,00	0,00	0,00
Derivatives	0,25	0,00	0,00
Other Financial Liabilities	15,92	18,83	28,27
Non-Current Payables to fixed asset suppliers	15,85	18,80	22,11
Other Payables	0,07	0,03	6,16
Current Liabilities Total	59,77	67,47	60,49
Non-Current Liabilities			
Bank Borrowings	329,79	308,11	329,82
Syndicated Loans	243,89	250,00	290,00
Other Loans	90,00	64,01	44,44
Financial Leases	1,08	0,68	0,46
Deffered Interest Expense	(5,18)	(6,59)	(5,07)
Bonds and Other negotiable securities	0,00	0,00	0,00
Derivatives	5,57	3,92	1,88
Other financial Liabilities:	62,27	54,98	45,28
Non-Current Payables to fixed asset suppliers	21,48	17,86	12,98
Other	40,79	37,11	32,30
Non-Current Liabilities Total	397,62	367,00	376,98
Total Book Value of Debt	457,39	434,47	437,48

EXHIBIT 59: "DEBT BOOK VALUE EVOLUTION"

Source: www.europacgroup.com

Europac has been improving its debt values and financing at lower costs as you can see in the exhibit above. Current liabilities have been reduced in terms of credit facilities, other loans and financial leases. Regarding Non-Current figures we see a reduction of Other Loans, Financial Leases, Derivatives and other financial liabilities.

As you can see in the exhibit below, Europac is expected to improve its interest burden comparing with 2016. This is possible because the company can finance at lower costs than in the previous years.

Interest Burden								
<i>Values in Million €</i>	2016	2017	2018	2019	2020	2021	2022	2023
EBITDA	126,6	132,5	116,3	106,8	112,8	117,4	106,1	104,0
Interest Expense, Net Non-Operating	12,2	9,6	8,6	7,2	7,5	7,6	7,0	7,0
Interest Burden	9,6%	7,2%	7,4%	6,7%	6,6%	6,5%	6,6%	6,7%

EXHIBIT 60: " INTEREST BURDEN"

In terms of Unfunded Retirement Liabilities we can see that Europac has been increasing this value reaching 16,2 millions in 2016. This was a result of an increase of pension supplements, Retirement benefits and seniority awards.

<i>Reported in Million €</i>	2014	2015	2016
Provisions for commitments to employees			
Defined Benefit plans:			
Pension supplements with allocated funds	5,963	5,413	7,01
Retirement Benefits	8,459	8,103	8,626
Other Long -Terms Benefits			
Seniority Awards	0,639	0,593	0,611
Total	15,061	14,109	16,247

EXHIBIT 61: "PROVISIONS FOR COMMITMENTS WITH EMPLOYEES"

Source: Investor Relations.

9.2. Performance indicators

In terms of profitability we find Europac increasing its margins throughout the years. From 2013 to 2015 we saw Europac improving its margins mainly due to favourable paper prices and machines efficiency. The forecasted margins are expected to improve until 2017 and maintain a close level for the next years.

Profitability											
<i>Values in Million €</i>	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue	802,0	775,1	805,7	801,2	828,4	802,3	791,8	805,4	782,5	757,9	771,5
Gross Profit	397,0	376,4	403,1	404,4	429,8	404,2	390,9	401,8	398,2	378,0	380,9
EBITDA	104,1	91,4	111,2	126,6	132,5	116,3	106,8	112,8	117,4	106,1	104,0
EBIT	54,9	44,5	62,5	77,7	82,5	65,5	57,5	64,2	68,0	58,1	57,5
Net Income	27,4	24,8	32,4	48,9	53,8	42,0	37,1	41,9	44,6	37,6	37,3
<i>Values in %</i>	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Gross Margin	49,5%	48,6%	50,0%	50,5%	51,9%	50,4%	49,4%	49,9%	50,9%	49,9%	49,4%
EBITDA Margin	13,0%	11,8%	13,8%	15,8%	16,0%	14,5%	13,5%	14,0%	15,0%	14,0%	13,5%
EBIT Margin	6,8%	5,7%	7,8%	9,7%	10,0%	8,2%	7,3%	8,0%	8,7%	7,7%	7,5%
Profit Margin	3,4%	3,2%	4,0%	6,1%	6,5%	5,2%	4,7%	5,2%	5,7%	5,0%	4,8%

EXHIBIT 62: "EUROPAC PROFITABILITIES"

Europac is a company with a controlled level of leverage, committed with a debt cost and value reduction. According to the exhibit below Europac has been reducing its D/E ratio which is good for the company.

In the Net Debt/EBITDA figure, we see an effort towards a reduction of this ratio through the debt repayment. Europac in the forecasted period will generate enough cash to reduce debt, make small investments and pay the shareholders according to public information.

Leverage	Historical Data				Forecasted Data						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
D/E Ratio	2,21	2,20	2,06	2,03	1,59	1,46	1,37	1,30	1,15	1,05	1,03
Net Debt /EBITDA	3,17	3,81	3,10	2,71	2,00	2,00	1,70	1,70	1,70	1,70	1,70

EXHIBIT 63: "EUROPAC LEVERAGE"

Source: Reuters.

The return on invested capital improved from 2013 to 2016 about 3,2% and is expected to improve until 2017. This means, the company is improving its capacity to generate net income with capital invested.

In terms of return on equity, Europac is improving its efficiency to 13,2% in 2016, which can be attractive for investors. However according to my forecasts these returns will decrease given that shareholders equity is expected to increase more than net profits.

The assets turnover shows values close to 72% in 2016 and close to 75% in the forecasted period which shows Europac group is using efficiently each Euro spent on assets.

Another measure of efficiency it's the return on capital employed. In this figure we can see an improvement from 2013 to 2016 and I believe for the forecasted period they will keep

improving, creating value for the shareholders. However, according to my forecasts they will not meet the 14% objective in 2018 because their EBIT is not going to grow as much as a 14% ratio requires.

Operating Returns											
<i>Values in %</i>	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ROIC	4,5%	3,9%	5,2%	7,7%	10,0%	8,3%	8,2%	9,0%	9,5%	8,4%	8,4%
ROE	8,2%	7,4%	9,1%	13,2%	12,8%	9,7%	8,4%	9,1%	9,3%	7,6%	7,3%
Asset Turnover	74,8%	71,9%	73,9%	71,6%	76,0%	75,7%	75,5%	75,6%	75,6%	75,2%	75,3%
ROCE	7,3%	5,5%	7,8%	9,3%	10,0%	8,1%	7,5%	8,1%	8,7%	8,0%	7,8%

EXHIBIT 64: "OPERATING RETURNS"

Source: Historical Data Reuters.

9.3. Stock Exchange Performance

Europac Stock Market Performance					
	2013	2014	2015	2016	16/03/17
Share price (Year end Prices)	3,42	3,54	5,00	5,25	6,29
Shares Outstanding (Million Shares)	95,8	94,6	94,0	91,3	91,3
Market Capitalization (Million €)	327,4	335,0	470,0	479,3	574,1
EV/EBITDA	6,39	6,4	6,71	6,69	7,38
Price-to-Earnings Ratio	13,72	11,58	11,51	10,87	12,46

EXHIBIT 65: "STOCK PERFORMANCE"

Source: Reuters.

The exhibit above shows that Europac has been increasing its market share value throughout the years, as well as their market capitalization. This happened due to good investors expectations for this company.

Europac has been trading at good multiples which means the company is improving its value year by year and is expected to grow in the future.

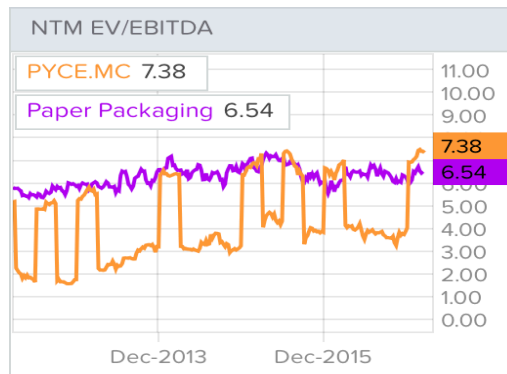


EXHIBIT 66: "EV/EBITDA PERFORMANCE"

Source: Reuters.

As it is shown, Europac is trading at a higher multiple than the Paper and Packaging market which means investor are expecting Europac to grow.

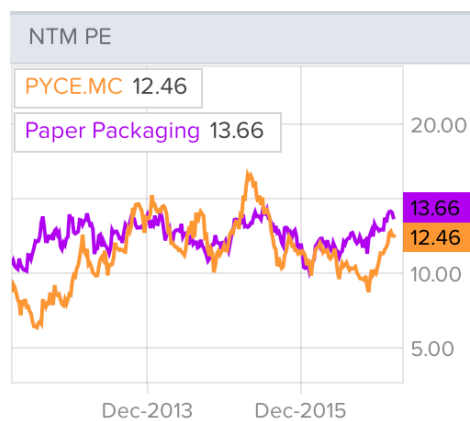


EXHIBIT 67: " PER PERFORMANCE"

Source: Reuters.

In the exhibit above, you can see that the company is trading below the market, this can significate that the company has potential to grow.

At the exhibit below, you can see that Europac has been rebuilding confidence within the investors, consolidating its accounts and improving their cashflows and profitabilities. Their commitement with the shareholder, cash generation and debt reduction are responsible for this upward share price improvement.



EXHIBIT 68: "EUROPAC'S STOCK 5Y PERFORMANCE"

Source: Reuters

2016 was characterized by many political events which impacted directly the economy. Within this events we can highlight the British Referendum, the US elections and the Spanish market uncertainty due to the political deadlock of the government.

Thus, Europac share price rose by 5% during 2016, above the rate for the IBEX35 which fell by 2%, the Ibox Medium Cap which fell by 6,6%. By contrast, Ibox Small Cap rose by 8% over 2016.

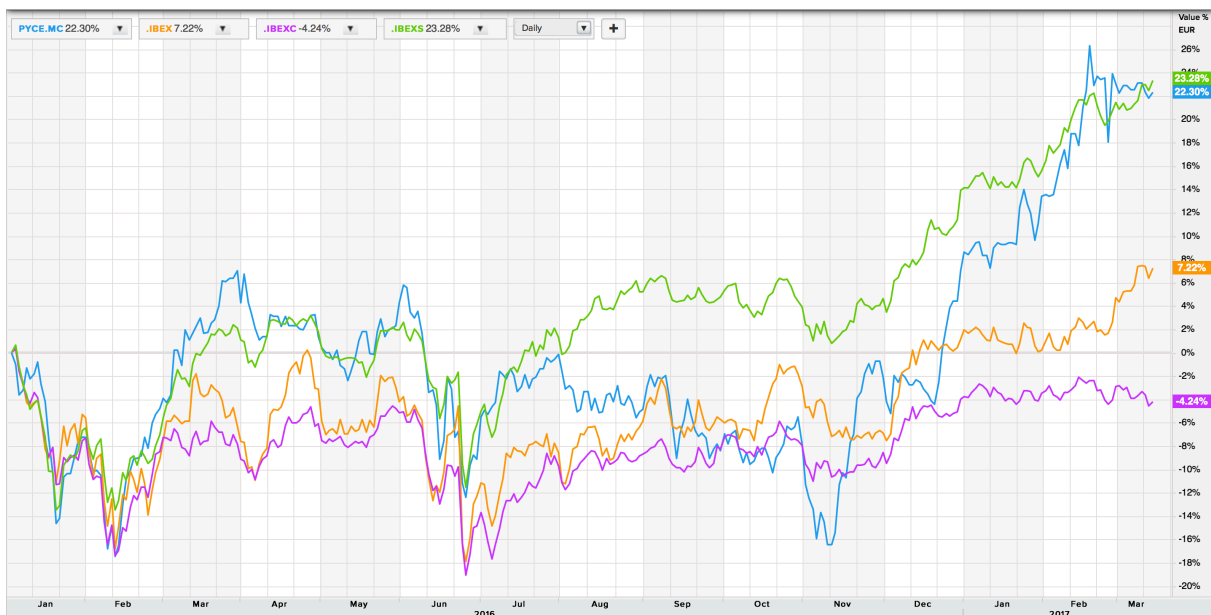


EXHIBIT 69: "EUROPAC STOCK AGAINST MARKET PERFORMANCE"

Source: Reuters.

10. FCFF Core Valuation

For the FCFF model I built a base, optimistic and pessimistic scenarios. First, in the base scenario revenue evolves according to changes in the forecasted paper prices. Second, in the optimistic scenario I predicted an increase of 2% of the base scenario sales. Finally, in the pessimistic scenario I predicted a decrease of 2% of the base scenario sales. For reasonability of the model I attributed a probability of happening to each of these 3 scenarios. (90% Base Scenario; 5% Pessimistic Scenario, 5% Optimistic Scenario). The base scenario is the most likely to happen for it has a higher probability than the pessimistic and optimistic scenarios.

Presented below you will find the firm FCFF valuation in the base, pessimistic and optimistic scenarios where each annual expected FCFF was discounted at the after-tax wacc and the terminal value was computed using the 2023 year FCFF times the expected growth in perpetuity discounted at the appropriate rate. Although this company operates in a cyclical industry, I used the last year FCFF of the explicit period for the terminal value because it is so distant in time that errors will be minimal.

Summing all the present values to the 2016 excess cash I found an Enterprise Value which I subtracted the Market value of debt and unfunded employment commitments to compute the equity value of the firm.

Base Scenario			
Year	FCFF	Discount Factor (After-Tax Wacc)	PV
2017	39,37 €	0,95	37,45 €
2018	76,46 €	0,90	69,17 €
2019	56,44 €	0,86	48,56 €
2020	38,67 €	0,82	31,64 €
2021	71,57 €	0,78	55,71 €
2022	68,74 €	0,74	50,89 €
2023	35,26 €	0,70	24,83 €
Continuation Value	860,54 €	0,70	605,95 €
Present value of all cash flows			924,20 €
Excess Cash			94,77 €
Enterprise Value			1 018,97 €
Nonequity claims			505,18 €
Equity			513,79 €
Shares Outstanding			91,30
Value Per Share			5,63 €

Probability 90%

EXHIBIT 70: "EUROPAC FCFF VALUATION BASE SCENARIO"

Pessimistic Scenario			
Year	FCFF	Discount Factor (After-Tax Wacc)	PV
2017	37,39 €	0,95	35,56 €
2018	75,90 €	0,90	68,66 €
2019	51,76 €	0,86	44,54 €
2020	29,25 €	0,82	23,94 €
2021	57,85 €	0,78	45,03 €
2022	64,79 €	0,74	47,97 €
2023	25,03 €	0,70	17,62 €
Continuation Value	610,82 €	0,70	430,12 €
Present value of all cash flows			713,44 €
Excess Cash			94,77 €
Enterprise Value			808,21 €
Nonequity Claims			505,18 €
Equity			303,03 €
Shares Outstanding			91,30
Value Per Share			3,32 €

Probability 5%

EXHIBIT 71: "EUROPAC FCFF VALUATION PESSIMISTIC SCENARIO"

Optimistic Scenario			
Year	FCFF	Discount Factor (After-Tax Wacc)	PV
2027	41,35 €	0,95	39,33 €
2018	83,08 €	0,90	75,16 €
2019	61,32 €	0,86	52,76 €
2020	42,22 €	0,82	34,55 €
2021	74,21 €	0,78	57,77 €
2022	85,18 €	0,74	63,06 €
2023	46,80 €	0,70	32,95 €
Continuation Value	1 142,08 €	0,70	804,20 €
Present value of all cash flows			1 159,78 €
Excess Cash			94,77 €
Enterprise Value			1 254,55 €
Nonequity Claims			505,18 €
Equity			749,37 €
Shares Outstanding			91,30
Value Per Share			8,21 €

Probability 5%

EXHIBIT 72: "EUROPAC FCFF VALUATION OPTIMISTIC SCENARIO"

For the YE16 Fair Value Price I multiplied each probability for the share price and I reached a Final YE16 Fair Value Price of 5,64€ per share compared with a 5,25€ market share price.

Enterprise value	925,44 €
Excess Cash	94,77 €
Nonequity Claims	505,18 €
Equity	515,03 €
Shares Outstanding	91,30
YE16 Fair Value	5,64 €

EXHIBIT 73: "EUROPAC FAIR VALUE YE16"

11. Multiples Valuation

11.1 Peer Group

The first step taken in order to find a representative peer group was to locate relevant companies that operate in the paper & packaging industry. The following table shows the peer group big picture.

Company	Country	Industry	Market cap. (in M€)	EBITDA Margin (2015)	EBIT Margin (2015)	Total Assets in M€	ROA
Europac	Spain	Paper Products	408,95 €	13,2%	7,8%	1 090,00 €	3,0%
Altri	Portugal	Paper Products	656,26 €	33,8%	25,3%	1 195,00 €	9,7%
Ence	Spain	Paper Products	494,57 €	29,5%	16,1%	1 207,80 €	4,2%
Navigator Company	Portugal	Paper Products	1 920,00 €	24,6%	17,1%	2 429,90 €	7,7%
Smurfit Kappa	Ireland	Paper Packaging	4 850,00 €	14,2%	8,9%	8 512,00 €	4,9%
Mondi	United Kingdom	Paper Packaging	9 135,50 €	19,5%	13,2%	6 469,00 €	10,1%
DS Smith	United Kingdom	Paper Packaging	4 425,00 €	12,3%	6,1%	4 875,04 €	4,5%
SCA	Sweden	Personal Products	17 109 480,90 €	16,3%	9,5%	15 573,83 €	4,9%
Iberpapel Gestion	Spain	Paper Products	222,41 €	14,4%	9,9%	264,30 €	6,1%
Metsa	Finland	Paper Products	1 990,00 €	11,2%	9,9%	2 220,10 €	6,3%

EXHIBIT 74: "PEER GROUP BIG PICTURE"

Source: Reuters.

Company	ROE (comn Eqty)	LT D/A	D/E	Net Debt/EBITDA	Beta Equity (5Y monthly)	CAPEX/Sales	WC / Sales growth	Depreciation in M€	Depreciation / Total assets
Europac	9,4%	33,7%	121,9%	3,2%	0,7	7,36%	2,2%	48,70 €	4,5%
Altri	39,6%	47,5%	212,1%	2,1%	1,2	5,57%	14,0%	52,80 €	4,4%
Ence	9,0%	69,2%	72,1%	1,3%	0,77	8,13%	5,0%	59,00 €	4,9%
Navigator Company	14,8%	28,3%	60,3%	1,1%	1,8	9,30%	-13,3%	121,60 €	5,0%
Smurfit Kappa	18,2%	38,0%	152,6%	2,5%	1,89	5,41%	-1,3%	338,00 €	4,0%
Mondi	21,7%	10,1%	54,0%	1,2%	2,2	22,29%	-1,2%	368,00 €	5,7%
DS Smith	15,5%	4,5%	112,3%	1,9%	0,99	19,84%	-1,3%	51,00 €	1,0%
SCA	10,2%	14,0%	47,2%	1,7%	0,76	6,58%	0,2%	839,68 €	5,4%
Iberpapel Gestion	7,6%	0,9%	2,7%	-	0,26	5,94%	0,6%	9,90 €	3,7%
Metsa	14,7%	27,5%	63,8%	1,7%		8,72%	1,8%	99,70 €	4,5%

EXHIBIT 75: "PEER GROUP BIG PICTURE"

Source: Reuters.

For the representative group I analysed the big picture in a selective process finding what were the most similar to Europac in terms of industry, margins, assets, returns, debt and other figures.

Finishing the selective process, I shortened the big picture to the most representative set of companies. Thus, the following table shows the peer I consider the most representative.

Company	Country	Industry	Market cap. (in M€)	EBITDA Margin (2015)	EBIT Margin (2015)	Total Assets in M€	ROA	ROE (comm Eqty)
Europac	Spain	Paper Products	408,95 €	13,2%	7,8%	1 090,00 €	3,0%	9,4%
Ence	Spain	Paper Products	494,57 €	29,5%	16,1%	1 207,80 €	4,2%	9,0%
Smurfit Kappa	Ireland	Paper Packaging	4 850,00 €	14,2%	8,9%	8 512,00 €	4,9%	18,2%
SCA	Sweden	Personal Products	17 109 480,90 €	16,3%	9,5%	15 573,83 €	4,9%	10,2%
Iberpapel Gestion	Spain	Paper Products	222,41 €	14,4%	9,9%	264,30 €	6,1%	7,6%
DS Smith	United Kingdom	Paper Packaging	4 425,00 €	12,3%	6,1%	4 875,04 €	4,5%	15,5%

EXHIBIT 76: "SELECTED PEER GROUP"

Source: Reuters.

Company	Country	Industry	LT D/A	D/E	Net Debt/EBITDA	Beta Equity (5Y monthly)	CAPEX/Sales	WC / Sales growth	Depreciation in M€	Depreciation / Total assets
Europac	Spain	Paper Products	33,7%	121,9%	3,2%	0,7	7,36%	2,2%	48,70 €	4,5%
Ence	Spain	Paper Products	69,2%	72,1%	1,3%	0,77	8,13%	5,0%	59,00 €	4,9%
Smurfit Kappa	Ireland	Paper Packaging	38,0%	152,6%	2,5%	1,89	5,41%	-1,3%	338,00 €	4,0%
SCA	Sweden	Personal Products	14,0%	47,2%	1,7%	0,76	6,58%	0,2%	- €	0,0%
Iberpapel Gestion	Spain	Paper Products	0,9%	2,7%	-	0,26	5,94%	0,6%	9,90 €	3,7%
DS Smith	United Kingdom	Paper Packaging	4,5%	112,3%	1,9%	0,99	19,84%	-1,3%	51,00 €	1,0%

EXHIBIT 77: "SELECTED PEER GROUP"

Source: Reuters.

11.2 Multiples Core Valuation

Selected the representative peer group, it was time to find each firm's figures in terms of the best multiples for this industry. Therefore, I considered the EV/EBITDA and Price-to-Earnings ratio the most appropriate multiples given the industry Europac Group operates.

	EV/EBITDA	PER
Europac	6,45	9,96
Ence	5,42	12,21
Smurfit Kappa	6,51	9,98
SCA	9,77	16,76
Iberpapel Gestion	5,59	13,49
DS Smith	8,45	12,84
Average	7,148	13,056

Values date: 3 December 2016

Source: Eikon Reuters Terminal

EXHIBIT 78: "PEER GROUP MULTIPLES AVERAGE"

With the peer group established, I was able to compute the peer multiples average and use it for the Europac group valuation. According to the table, Europac is traded below the peer group average in the 2 multiples chosen. This can be explained by the possible uncertainty of the investor on Europac capacity to grow and generate earnings comparing with the peers as well as different margins. The change in Europac strategy from expansion to consolidation can also explain the fact that is traded at lower multiples than the industry average.

Given the peer group average I was able to estimate what would be the value for Europac in 2016. Thus, in the table below you will find Europac's price per share according to each multiple.

<i>Reported In Million €</i>	EV/EBITDA	PER
Enterprise Value	904,94 €	
(+) Excess Cash	94,77 €	
(-) Debt	505,18 €	
Equity value	494,53 €	638,44 €
Shares outstanding	91,30	91,30
Price per share (P0)	5,42 €	6,99 €

EXHIBIT 79: "EUROPAC RELATIVE VALUATION"

Therefore, I computed a fair 2016 price according to EV/EBITDA of 5,42€ per share and according to PER of 6,99€ per share. These values are higher than 5,25€ market share price which means the share price might be undervalued.

12. FCFF Sensitivity Analysis

In order to understand the impact of some variables in the price target recommendation I decided to create a sensitivity analysis where we can assess the impact of changes in growth and after-tax wacc on the value of the company.

Sensitivity Analysis	Growth Rate			
	0%	0,5%	1,0%	1,5%
	4,78%	5,59 €	6,49 €	7,67 €
WACC	5,28%	4,65 €	5,64 €	6,22 €
	5,78%	3,88 €	4,43 €	5,10 €

EXHIBIT 80: "SENSITIVITY ANALYSIS"

In this model, it is possible to understand how sensitive the FCFF models are to growth changes. Only one small percentage change in the growth variable can have a significant impact in the share price and thus I would say the fair value share price would be between 4,65€ and 5,64€ for 2016 year end.

13. Investment Bank Comparison

The previous valuations will be compared with BPI Equity Research where analysts responsible for Europac Group are José Rito and Bruno Bessa. At January 2016 BPI equity research did its FCFF valuation publishing a YE16 fair value price of 5,83€ and a YE16 Target Price of 5.20€ per share with a small company discount of 10%. My FCFF valuation ended up with a YE16 Fair Value price of 5,64€ which is 7,4% above the market share price and 3,4% below BPI Valuation.

In terms of Multiples BPI published PER averaging 12,4 and an EV/EBTDA of 7,6 against this dissertation values of 13,05 for PER and 7,1 for EV/EBITDA.

Different assumptions, figures and peer groups explain the difference between our target prices. In the table below you will find the most relevant differences between our valuations:

Valuation Comparasion	Thesis Valuation	BPI Equity Research
Valuation Method	I used a FCFF method for P&P building a base, pessimistic and Optimistic Scenario with respective probabilities.	BPI's analyst used a FCFF method for P&P and Energy and then a sum of parts for the total value.
Explicit Period	I used na explicit period of 6 years (2017-2023) Because of the company stability and because i wanted incorporate a entire cycle.	According to BPI Equity Research they used a 4 years explicit period.
Revenue Expectations	I constructed a base, pessimistic (2% decrease) and optimistic (2% increase) scenarios for the revenues expectations. Base Scenario depending on Kraftliner, Testeliner and Recovered paper average prices change.	BPI Equity Research expected more optimistic revenues. Forecasts based on GDP, paper prices and paper production volumes.
EBIT Expectations	In the base and pessimistic scenario more conservative. In the Optimistic Scenario more optimistic.	More Optimistic.
Effective Tax Rate Expectations	27,2% effective tax rate for 2016, decreasing to 25% from 2017 until 2023.	BPI expect 27,4% effective tax rate in 2016 for P&P and 26,5% for Energy.
P&P Cost of Capital	Rf = 1,86% CRP = 2,71% MRP = 6,20% Beta Equity = 0,81 Re = 9,09% Rd = 1,13% D/V = 43% E/V=57% Wacc = 5,51% g = 1,0%	Rf = 3,25% CRP = 0,77% MRP = 6% Beta Equity = 1,0 Re = 9,7% Rd = 6% D/V = 30% E/V = 70% Wacc = 8,1% g = 2%
Energy Cost of Capital	According to Europac Energy is used for the paper production and is not sold.	They assumed as another source of value, thus: Rf = 3,25% CRP = 1,1% MRP = 6% Beta Equity = 0,8 Re = 9,4% Rd = 6,4% D/V = 45% E/V = 55% Wacc = 7,3% g = 0%
Net Debt Expectations	My Net Debt expectation for 2016 will be 410,41 million €.	BPI Equity Reasearch Net Debt expectations will be 346 million €.
Cash Expectations	My cash expactations will be aligned with Europac strategy, therefore they will have in balance Operating cash around 50 millions and Cash & Equivalente around 25 Millions.	Given the fact that Europac is using cash to reduce debt level and distribute dividends, i found reasonable that Europac would reduce Cash & Equivalentes on balance to 50 million € from 2016 to 2023.
Price Fair Value	YE16 Price Fair Value = 5,64€	YE16 Price Fair Values = 5,83€
Relative Valuation	EV/EBITDA = 7,1 and PER = 13,05	EV/EBITDA = 7,6 and PER = 12,4

EXHIBIT 81: "VALUATION COMPARASITON"

In the following table it is possible to illustrate the differences between revenue, EBITDA, Margins and Capex.

P&P Base Scenario	Thesis 2016	BPI 2016	Thesis 2017	BPI 2017	Thesis 2018	BPI 2018	Thesis 2019	Thesis 2020	Thesis 2021	Thesis 2022	Thesis 2023
<i>Values in Million €</i>											
Revenue	801,2	860,0	828,4	854,0	802,3	840,0	791,8	805,4	782,5	757,9	771,5
EBITDA	126,6	120,0	132,5	117,0	116,3	131,0	106,8	112,8	117,4	106,1	104,0
EBIDA Margin	15,8%	14,0%	16,0%	13,7%	14,5%	15,6%	13,5%	14,0%	15,0%	14,0%	13,5%
Capex	53,10 €	26,00 €	58,12 €	28,00 €	26,04 €	29,00 €	37,56 €	57,21 €	27,34 €	24,44 €	55,15 €

EXHIBIT 82: "THESIS VS BPI"

In Revenues I have more conservative expectations than BPI. In terms of EBITDA I am more optimistic about 2017 and more conservative about 2018. The main difference on revenue relies on the different drivers. The 4 years comparison is due to the fact there is a mismatch on our explicit periods.

We have similar expectations regarding margins being my values more optimistic. Unlike BPI, my capex equals the depreciation values based on Europac's Investor Relations information.

Given the significant differences on EBITDA, tax rates, depreciation and NWC, my FCF are expected to be lower than BPI.

The FCFF Valuation summary is shown in the exhibit below:

P&P	Thesis	BPI
<i>Values in Million €</i>	2016	2016
Enterprise Values	925,44 €	860,00 €
Net Debt	410,41 €	346,00 €
Fin. Investments	0	11,00 €
Equity	515,03 €	525,00 €
YE2016 Fair Value	5,64 €	5,83 €
S/C Disc.	0,1	0,1
YE2016 Target Value	5,08 €	5,20 €

EXHIBIT 83: "VALUATION SUMMARY"

BPI uses not only a FCFF method but also a lower D/V ratio (30%) which has a significant impact on the cost of capital.

In addition to this, not only the differences in the Enterprise value but also in the net debt resulted in different Equity values. I expect an equity value of 515,03 million € against 525 million € from BPI.

Differences in cost of capital and growth rates resulted in different fair value prices of 5,83€ (BPI) and 5,64€ (Thesis).

14. Conclusion

In order to suggest a fair value price for the company I used the DCF FCFF model. The FCFF model is conceptually correct and gave me a fair value price for Europac of 5,64€ compared with a market share price of 5,25€. After cross checking with EV/EBITDA multiple which gave me a share price of 5,42€, I suspect the company share price YE16 is undervalued.

My expectations are based in a conservative perspective. Europac Group is committed on reducing debt and pay the shareholders, increase its margins through cost efficiency and become efficient on the capital employed. Moreover, according to the figures, Europac is improving its ROIC and diversifying its products portfolio, investing in very profitable areas such as digital printing and investors know that revenues will improve.

It is expected that the effective tax rate will decrease over the explicit period which will increase the FCFF. Moreover, Leverage reduction is expected and this will give soundness to the company and reduce its risk.

15. Limitations

15.1. Dissertation Author Model Limitation

The models used incorporate some limitations either on DCF and multiples approaches. In the FCFF approach we may find some limitation since the company will reduce its debt and, thus, change slightly the capital structure. Once the after-tax wacc is not adjusted each year, there will be some limitations on the tax shield incorporations leading to some errors on the valuation. Also the probabilistic approach incorporates some limitations to the model.

Finally, the multiples valuation and the peer group selection can be debatable and they can be a possible limitation. Furthermore, the market can be wrong, multiples are easy to manipulate and we do not have to make assumptions on the multiples valuation.

15.2. BPI Equity Research Limitations

As far I am concerned, some possible limitations of BPI's FCFF model are related with the explicit period used, valuation of Energy business which is an input for the paper production

and the cost of capital. In one hand, the explicit period used was very short which can lead to some errors on the valuation, the shorter the length the bigger the probability for errors.

On the other hand, they present for the paper and packaging a wacc of 8,1% based on a risk free of 3,25% and a equity beta of 1.0 which I believe its erroneous. A risk-free rate of 3,25% is not risk free and although the company operates in a cyclical industry I believe it has a lower beta equity. Their cost of debt I believe it is the historical cost of debt (5,8%) and not the cost of financing right now which is much lower.

16. Recommendations

Although I computed a DDM and Multiples, my recommendations are based on the FCFF model because I believe it is the most consistent model. In this context, I recommend to buy Europac share because according to my valuation the YE2016 share is underpriced 7% below.

This means, I strongly believe the market will adjust making investors able to make a capital gain in the future 6 months.

The recommendation based on a FCFF model was sustained by the EV/EBITDA multiple which sustains my idea of the share being undervalued.

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17.2. Web Sites

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<http://www.cepi.org/system/files/public/documents/positionpapers/competitivenessandtrade/2010/2010PapermeetsEU%20values.pdf>

<http://www.pwc.com/gx/en/forest-paper-packaging/pdf/forest-paper-packaging-key-findings.pdf>

<http://pt.euribor-rates.eu>

<http://www.europacgroup.com/PT/RelacionInversores/InformacionEconomicoFinanciera/Pages/cuentasanuales.aspx>

17.3. Industry Associations

European Pulp and Paper Industry (CEPI);

Spanish Association of Pulp and Paper Manufacturers (ASPAPPEL);

Portuguese Paper Industry Association.

17.4. Investment Banks Research

BPI Equity Research Reports: Europac 26 June 2016, Europac January 2016, Iberian Pulp & Paper, Altri January 2016, Ence January 2016, Portucel January 2016 and Semapa January 2016.

17.5. Other Sources

Thomson Reuters Terminal Católica-Lisbon;

Bloomberg Terminal at Nova Business School;

Damodaran Website;

Hawkins Wright.

18. Appendix

18.1. Additional Literature

18.1.1 Assets Based Valuation

These valuation methods are also named balance sheet-based methods when the firm's value depends on its balance sheet.

A company's balance sheet is something like a picture taken to a company at a certain date to give the investors an idea of what the company owns or owes as well as the amount invested by the shareholders. Hence, this methods value a company from a static point of view and do not consider the company's future (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007).

Therefore, these models limitation are related with the fact that they do not consider the company's future evolution, industry current situation, organizational problems, etc.

Book value

According to the autor (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007), a company's book value (net worth) represents the value of shareholder's equity. Hence, when we subtract Total liabilities to Total assets we can determine its book value.

Adjusted Book Value

This is a method which faces the subjective criteria used on the balance sheet values of a company. Therefore, we can say that when the Total assets and Total liabilities values match their market value, by subtracting one to another, we can find the adjusted net worth (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007).

Liquidation Value

Another Assets-Based method is the LV which consists in measuring the value of a company as it is liquidated, this means, estimate the value of the remaining assets of a company after

paying their debt liabilities (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007).

Although this method seems really straightforward and easy to implement, at the same time it has some limitations incorporated. That is, this method is usually used in a specific situation where a company is bought with the intention of being sold in a near future (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007).

Substantial value

Finally, this method determine the value of a company by computing the investment or cost that should be incurred in order to build an identical company with the same assets (Fernandez, Company Valuation Methods. The most common errors in valuation, 2007).

18.1.2. Additional DCF methods Literature

Adjusted Present Value (APV)

Most of the financial analysts discount all future cash flows at a constant weighted average cost of capital, assuming the company targets a specific debt-to-value ratio. Usually, debt grows in line with the company value, however sometimes firms can change their capital structure. This change in the capital structure arises because companies with significant amount of debt pay it down as the cashflow improves, lowering debt-to-value ratio.

Hence, making a valuation based on a constant wacc would overstate the value of the tax shield and the APV come up as an alternative model.

The APV splits the value of operations into two componets: first, the value of the company as it was all-equity financed (unlevered). Second, the value of the tax shields that arise from debt financing (Koller, Goedhart, Wessels, & Company, 2005).

According to (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006) for the APV we start by valuing the firm as it was unlevered and later we consider the benefits (tax benefits) and costs of borrowing (risk of bankruptcy).

$$APV = \text{Enterprise Value as if the Company was All Equity Financed} \\ + PV(\text{Tax Shields}) - PV \text{ Expected Bankruptcy Costs}$$

This model follows Modigliani and Miller work who proposed that in a market with no taxes, this is, a perfect market, a company's choice of financial structure will not affect the value of its assets. Therefore, only imperfection in the market can affect the enterprise value (Koller, Goedhart, Wessels, & Company, 2005).

In addition to this, according to Modigliani and Miller some imperfection such as taxes, can incentive firms to increase debt due to interest tax shields benefits. Therefore:

$$V_L = V_U + VTS$$

Damodaran suggests a three steps way of computing the APV: first we compute the unlevered value of the firm, second we determine the value of the expected tax benefits from borrowing and third we determine the expected bankruptcy costs (Damodaran, Investment Valuation, 2002).

The following APV formula is inspired on (Damodaran, Investment Valuation, 2002) and assumes the cash flows grow at a constant rate in perpetuity:

$$APV = \frac{FCFF_0 \times (1 + g)}{R_u - g} + T_c \times D - \pi_a BC$$

UNLEVERED FIRM VALUE

When the cashflows do not grow at a constant rate the unlevered value is determined by the following formula:

$$V_u = \frac{FCFF_1}{1 + R_u} + \frac{FCFF_2}{(1 + R_u)^2} + \frac{FCFF_3}{(1 + R_u)^3} + \dots + \frac{FCFF_n + TV_n}{(1 + R_u)^n}$$

Where: $TV_n = \frac{FCFF_n \times (1 - g)}{R_u - g}$

PV INTEREST TAX SHIELDS

There is no consensus in the existing literature regarding the correct way of computing the interest tax shield value. Myers (1974) proposed to discount the tax savings at the cost of debt because of the payment of interest. By contrast, Harris and Pringle (1985) suggested discounting the tax savings at the cost of capital for the unlevered firm.

In addition to these arguments, Modigliani-Millers (1963) argues that when a firm has permanent debt we should discount at the risk-free the tax savings as a perpetuity (Fernandez, The value of the tax shield is NOT equal to the present value of the tax shields, 2002).

Therefore, according to Fernández paper, Mayers (1994) suggested the following formula for the present value of the tax shields:

$$VTS = \frac{T_c \times R_D \times D}{R_D}$$

By contrast, Harris and Pringle (1985) suggest the following formula for the present value of the tax shields:

$$VTS = \frac{T_c \times R_D \times D}{R_U}$$

Finally, Modigliani-Millers (1963) suggest a different formula for the present value of the tax shields (assuming risk-free debt):

$$VTS = \frac{T_c \times R_f \times D}{R_f}$$

Fernández disagrees with the above formulas arguing that the correct way of measuring the value of the tax shields is the difference between two present values, this is, the difference between the present value of the levered firm and the present value of the unlevered firm.

There is a further important distinction where Miles and Enzzel argue that, for companies that target a constant Debt-to-Value ratio, they should discount the tax savings at K_d for the first year and K_u for the next further years (Fernandez, The correct value of tax shields. An analysis of 23 theories., 2002).

Since there is a large number of alternatives when determining the value of the tax shields, Copeland, Koller and Murrin (2000) assert that the decision should be taken by the readers

when deciding which way fits the best their company (Fernandez, The value of the tax shield is NOT equal to the present value of the tax shields, 2002).

BANKRUPTCY COSTS AND FINANCIAL DISTRESS

Damodaran proposed a way to determine the expected bankruptcy costs and net effect. He suggests that, the first step we should take is to estimate the probability of default caused by an increase of debt value, as well as, the direct and indirect costs of bankruptcy. Having the probability of default together with the present value of the bankruptcy costs, we are able to compute the present value of the expected bankruptcy costs through the following formula:

$$\begin{aligned} PV \text{ of Expected Bankruptcy costs} &= Prob. Bankruptcy costs \times PV \text{ Bankruptcy costs} \\ &= \pi \times BC \end{aligned}$$

According to (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006) in one hand, we are able to estimate the probability of bankruptcy costs through bond's rating associated with a default probability. On the other hand, the bankruptcy costs can be estimated from studies regarding the magnitude of the cost. Although direct costs are relatively small, the indirect cost can be substantial.

As the firm increases its debt value over the optimal level, the cost of financing debt increases and the firm become riskier. Thus, the risk of bankruptcy increases as the debt load increases. In this context, a firm should increase debt as long as the present value of the tax shields are higher than the present value of financial distress costs. When the present value of the tax shields is lower than the present value of financial distress, the firm will destroy value.

In order to determine the present value of financial distress costs we need three components: the probability of financial distress, the magnitude of the costs and the appropriate discount rate for the distress costs (Berk & DeMarzo, 2014).

$$PV \text{ Financial Distress Costs} = Probability \text{ of } F. \text{Distress} \times PV \text{ of } F. \text{Distress}$$

Damodaran argues that in most of valuations we ignore distress which ends up on unrealistic valuations. The problem is that the risk of distress in the real world is much more common than analysts may think. Why do analysts believe distress costs are not relevant? In one hand, because they only value large firms, publicly traded where distress is very unlikely to happen. On the other hand they argue that access to capital is unconstrained, this is, they believe firms with high growth are not likely to be forced out of business because they are able to raise capital (equity) to keep going. Furthermore, there are some that believe that DCF models already incorporate the effect of distress.

Three additional reasons for ignoring financial distress costs into the valuation models are the following. First, they argue that the discounted rate is adjusted to the possibility of distress. Second, the expected cashflows are adjusted to the possibility of distress. Third, they argue that even when a firm is on distress, it will be able to sell their assets and receive the present value of the expected cash flows (Damodaran, *The Cost of Distress: Survival, Truncation Risk and Valuation*, 2006).

Financial distress costs represents an important issue when it concerns to firm valuations, in particular, for high leveraged firms which are riskier. In this context, looking at some figures, (Korteweg, 2006) research in to 244 firms in many different industries between 1994-2004 shows that expected financial costs range between 0-11% being usually on average 4%. When a firm is in bankruptcy the cost of distress may rise to 31%.

Concluding, the APV method is very versatile and reliable according to (Luehrman, 1997) in a way that works when wacc does not work since it requires fewer restrictive assumptions. Moreover, the APV power rely on the fact that it provides relevant managerial information. This means that managers can, not only analyse how much an asset is worth but also where the value comes from.

FCFF or APV?

Both models have pros and cons which make each model more suitable for firms with different characteristics. For instance, FCFF model is more suitable for valuations regarding projects, business units and companies who target a certain capital structure. By contrast, APV model is more suitable for companies with high amounts and unstable debt ratios in countries with complex tax legislation (Sabal, 2007) (Koller, Goedhart, Wessels, & Company, 2005).

In one hand, when using FCF model, the company's first concern is to forecast the business cashflows excluding financing cashflows such as interest, principals and dividends. Second, adjust the discount rate to incorporate the value created or destroyed by the firm financing structure. Hence, since WACC is a tax-adjusted discount rate, companies use it in order to account for the value driven by interest tax shields. The virtue of using the WACC to discount the FCF comes with a price, this means, it is only suitable for firms with simple and static capital structure characteristics. When we use WACC in cases where capital structures change frequently, this discount rate needs to be adjusted extensively, not only for tax shields but also for costs, subsidies, hedges, exotic debt securities and dynamic capital structures. This can lead to misestimate WACC which lead to misestimated valuations. Thus, the more complicated the capital structure, tax position or fund raising strategy, the more mistakes will be done.

On the other hand, the APV, according to (Damodaran, Investment Valuation, 2002) has some advantages for managers and analysts since it separates the sources of value in a company. The Author of (Luehrman T.) shares the same opinion when he argues that APV is a better alternative since it applies the DCF to each business's different kind of cashflows and then adding the present values. Since the idea of the APV model is value additivity, we can use it to break the valuation into pieces and make better managerial decisions.

However, one of the APV limitations is the fact that the probability of default is hard to estimate as well as the bankruptcy cost. This makes many analysts ignore the expected bankruptcy costs leading to overvalued valuations (Damodaran, Investment Valuation, 2002).

In conclusion, both authors (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006) and (Luehrman, 1997) argued that if both models are correctly applied we can reach to identical valuations.

Capital Cash Flow Model

Similar to all DCF models, this method is a common technique used to value risky cash flow. It is very similar to FCF in an algebraic perspective, although it treats interest tax shields differently. The main difference relies on the fact that, at the FCF method, interest tax shields are excluded from the FCF and the tax deductability is incorporated as a decrease in the cost of capital (after-tax WACC). By contrast, at the CCF the cashflows incorporate all capital providers cash flows including interest tax shields. Thus, CCF's are equal to FCF plus interest

tax shields. In this context, the CCF method uses the before tax asset associated to the rickness of the asset (Ruback, 2002).

Consequently the following formula illustrates how can we determine the value of a company through CCF:

$$CCF_n = FCF_n + \text{Interest Tax Shield}$$

$$EV = \frac{CCF_1}{1+WACC_{BT}} + \frac{CCF_2}{(1+WACC_{BT})^2} + \frac{CCF_3}{(1+WACC_{BT})^3} + \dots + \frac{CCF_n+RV_n}{(1+WACC_{BT})^n} \quad \text{Where: } RV = \frac{CCF_n \times (1+g)}{WACC_{BT}-g}$$

$$WACC_{BT} = \frac{E}{D+E} \times R_e + \frac{D}{D+E} \times R_d$$

CCF or FCFF?

Since both these models make similar assumptions about the cash flows, capital structure and taxes, the author (Ruback, 2002) considers both models as equivalent. Hence, when applied correctly using equal information and assumptions, they provide identical valuations. Therefore, the choice between both models relies on the easiest to use, or the one with less likelihood for error.

In conclusion, at the article (Booth, 2007), the author argues that he doesn't find any additional advantage of CCF over FCFF.

CCF or APV

Usually APV valuations are bigger than CCF because, although they discount the FCF at the same cost of capital, they use different discount rates for the interest tax shield (APV uses K_d where CCF uses $BTWacc$).

Thus, when the debt is assumed to be fixed the author suggests to use the APV, whereas when the debt is proportional to value, we should use CCF (Ruback, 2002).

Free Cash Flow to Equity

Unlike the FCFF method, in this model we can value the equity directly by discounting each equity cash flow at the equity cost of capital (Koller, Goedhart, Wessels, & Company, 2005).

In fact, we can conclude that this model can be considered a way of discounting potential dividends according to (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006).

How can we compute the FCFE and the Value?

$$\begin{aligned}
 FCFE = & \text{Net Income} + \text{Depreciation} - \text{Capital Expenditure} \\
 & - \text{Changes in non cash Working Capital} - (\text{New Debt Issue} \\
 & - \text{Debt Repayments})
 \end{aligned}$$

$$E = \frac{FCFE_1}{1 + R_e} + \frac{FCFE_2}{(1 + R_e)^2} + \frac{FCFE_3}{(1 + R_e)^3} + \dots + \frac{FCFE_n + TV_n}{(1 + R_e)^n}$$

With consistent assumptions the value determined using either FCFF or FCFE models is the same, however equity cash flow models are hard to use sometimes. This happens because, matching the equity cash flows with the appropriate rate is challenging (Koller, Goedhart, Wessels, & Company, 2005).

Moreover, due to the nature of the cash flow, the FCFF becomes less likely for errors since in the FCFE we have to consider new debt issuance and debt repayments (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006).

Dividend Discount Model (DDM)

This model is based on the cashflow that investors may receive when buying publicly traded stocks in the market, this is, dividends. By discounting the dividend cashflows at the appropriate discount rate we can, in a simple way, determine the equity value of a company.

This model relies on the present value rule of a source of value of a stock, this is, the dividends which is the payment an investor is expected to receive when holding a stock. Therefore, according to the author, the value of a stock is determined by (Damodaran, Investment Valuation, 2002):

$$V_e = \sum_{t=1}^{\infty} \frac{E(DPS_t)}{(1 + K_e)^t}$$

Where:

$E(DPSt)$ is the expected dividend per share;

K_e is the cost of equity.

The expected dividends are based on 2 assumptions, these are, the expected growth on earning and payout ratio. One of the main advantages of this model relies on the simplicity and intuitivity whereas the second advantage relates with the fact that this model requires fewer assumptions regarding expected dividend cashflows. Moreover, dividends usually are stable in firms which means that valuations under DDM are less volatile than DCF valuations (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006).

Economic Value Added

When a firm makes an investment or has a portfolio of investments, EVA models appears as a measure surplus value, this means, the excess return (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006). Thus, we can compute EVA in the following manner:

$$\begin{aligned} EVA &= (ROIC - WACC) \times \text{Capital Invested} \\ &= \text{After Tax Operating income} - (WACC \times \text{Capital invested}) \end{aligned}$$

According to the author of the article (Damodaran, Valuation Approaches and Metrics: A Survey of the Theory, 2006) the NPV and EVA are somehow linked since the NPV is the present value of the EVA of the firms projects. Thus the following formula can explain this linkage:

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

Therefore, we can see that this model relies on three different inputs, this is, return on capital, the cost of capital on investments and capital invested.

Taking the book value to estimate the market value of the capital invested on assets requires some adjustments such as: converting operating lease into debt, capitalizing R&D expenses and eliminating the one-time effect.

Although the usual view about EVA defends that this method measures the shareholder's value creation, there are some authors that defend the opposite. At the article (Fernandez , EVA,

Economic profit and Cash value added do NOT measure shareholders value creation, 2001) , the author shows data evidence suggesting that the accounting figures are incorrect to compute the shareholders value creation.

Should we include the Country Risk Premium?

Recently, with globalization, the country risk premium appeared as a very important issue in valuation. Should we include it when valuating equity or not? And if yes, where should we incorporate it? Cash-flows or discount rate?

Damodaran states that, in one hand it is true that investors can eliminate part of the country risk by diversifying equities in many countries. However, on the other hand, the country risk cannot be fully eliminated through diversification due to the increasing correlation between the markets (Damodaran, Country Risk and Company Exposure: Theory and Practice, 2003).

18.1.3. Contingent Valuation

Making a valuation using options, implies making a valuation on real assets rather than financial assets. Thus, according to (Damodaran, Investment Valuation, 2002) we use real option to value real assets.

Using DCF techniques to value a firm which provides some future flexibility is impossible. In this context, real options valuations come up when there are future possibilities for action. When do we know we have future flexibility? When we have the option to develop, abandon or hold a certain project, option to change the use of a certain asset and option to defer investments (Fernández, Valuing real options: frequently made errors, 2001).

Damodaran suggests two important models for the options valuation, these are, binomial model and black-scholes model.

The binomial model is based on the assumption that an asset's price, at a certain time, can move up or down. The objective is to replicate one portfolio that includes risk-free borrowing or lending and an underlying asset that provides the same cash flows as the option valued.

Through the Black-Scholes model we can value an option based on a small number of inputs such as: Price of the commodity, strike price of the option, maturity, risk-free rate and volatility.

Since I don't consider this valuation methods important for my valuation, I will no not futher develop this issue.

18.2. Additional Core Valuation Methods

18.2.1. Dividend Discount Models

According to the past years reports, Europac has been committed to its shareholders, distributing dividends in the past 5 years. The payout ratio differs in the past years, however with the cash flow improvements they have been able to increase to 50% in the past 3 years. Public information about the last shareholders meeting say that Europac will keep the 50% payout ratio for 2016. The Directors board proposed to increase the payout ratio to 60%, therefore I assumed it will be increased in 2017.

Based on my earnings expectations for the explicit period I was able to compute the total cash dividends of each year.

Dividends	Forecasted								
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Payout Ratio		50%	60%	60%	60%	60%	60%	60%	60%
Earnings (Million €)	32,40	48,90	53,85	42,00	37,12	38,88	37,87	37,64	37,28
Total Cash Dividends		16,20	29,34	32,31	25,20	22,27	23,33	22,72	22,58
Shares Outstanding		91,3	91,3	91,3	91,3	91,3	91,3	91,3	91,3
DPS		0,18	0,32	0,35	0,28	0,24	0,26	0,25	0,25

EXHIBIT 84: "FORECASTED DIVIDENDS PER SHARE"

Source: Investor Relations.

Having the DPS figures for each year and discounting it at the appropriate rate Re of 9,09% I could compute the present values.

The terminal value was computed using the 2023 years expected DPS multiplied by the expected growth rate in perpetuity and discounted at Re . Suming all present values I got an equity fair value per share of 3,25€.

Year	DPS	Discount Factor (Re)	PV
2017	0,32 €	0,92	0,29 €
2018	0,35 €	0,84	0,30 €
2019	0,28 €	0,77	0,21 €
2020	0,24 €	0,71	0,17 €
2021	0,26 €	0,65	0,17 €
2022	0,25 €	0,59	0,15 €
2023	0,25 €	0,54	0,13 €
Continuation Value	3,35 €	0,54	1,82 €
Price	3,25 €		

EXHIBIT 85: "DIVIDEND DISCOUNT MODEL VALUATION"

This valuation seems very low when compared to the current value however this is explained by the fact that, the closer the dividends amount is to the FCF the closer the DDM value is to the true value of the firms.

For this Valuation I made some of assumptions such as: Europac decides to increase the payout ratio to 60% at the General Meeting; Payout over net profit of the previous year; Shares Outstanding will be constant in the forecasted period.

18.3. Financial Statements

18.3.1. Balance sheet

Balance Sheet										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Assets (€ Millions)										
Cash and Short Term Investments	109,2	91,4	97,1	79,4	76,9	75,9	77,2	75,0	72,6	73,9
Cash	89,6	79,7	50,6	52,3	50,7	50,0	50,9	49,4	47,9	48,8
Cash & Equivalents	19,2	10,2	44,1	26,2	25,4	25,0	25,5	24,7	24,0	24,4
Short Term Investments	0,4	1,6	2,3	0,9	0,8	0,8	0,8	0,8	0,8	0,8
Accounts Receivable - Trade, Net	38,9	59,4	50,1							
Accounts Receivable - Trade, Gross	55,8	0,0	0,0							
Provision for Doubtful Accounts	(16,9)	0,0	0,0							
Total Receivables, Net	59,0	80,2	88,2	69,6	67,4	66,5	67,6	65,7	63,7	64,8
Receivables - Other	20,1	20,8	38,1							
Total Inventory	82,2	79,8	79,2	80,9	80,8	81,3	82,7	79,9	77,1	79,3
Inventories - Finished Goods	22,6	21,6								
Inventories - Work In Progress	0,8	0,9								
Inventories - Raw Materials	58,2	56,7								
Inventories - Other	0,7	0,6								
Other Current Assets, Total	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Discontinued Operations - Current Asset	0,0	0,0	0,0							
Total Current Assets	250,4	251,4	264,4	229,8	225,0	223,7	227,6	220,6	213,3	218,0
Property/Plant/Equipment, Total - Gross	1 336,9	1 393,5	1443,8	1501,9	1528,0	1565,5	1622,7	1650,1	1674,5	1729,7
Buildings - Gross	0,0	0,0								
Land/Improvements - Gross	281,4	290,0								
Machinery/Equipment - Gross	976,2	1 021,7								
Construction in Progress - Gross	51,3	53,5								
Other Property/Plant/Equipment - Gross	27,9	28,3								
Property/Plant/Equipment, Total - Net	666,8	681,3	685,5	696,4	674,5	665,6	677,1	657,9	637,1	648,6
Accumulated Depreciation, Total	(670,1)	(712,3)	758,3	805,5	853,5	899,9	945,6	992,2	1037,4	1081,0
Goodwill, Net	89,4	89,4	89,4	89,4	89,4	89,4	89,4	89,4	89,4	89,4
Goodwill - Gross	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Intangibles, Net	7,5	6,2	6,2	7,5	7,2	7,2	7,3	7,1	6,8	7,0
Intangibles - Gross	24,7	25,8								
Accumulated Intangible Amortization	(17,2)	(19,5)								
Long Term Investments	5,8	6,0	18,5	6,3	6,1	6,0	6,1	5,9	5,8	5,9
LT Investment - Affiliate Companies	1,6	1,6								
LT Investments - Other	4,2	4,3								
Other Long Term Assets, Total	58,5	55,4	55,3	60,1	58,2	57,4	58,4	56,8	55,0	56,0
Deferred Income Tax - Long Term Asset	53,1	49,1	48,3							
Other Long Term Assets	5,4	6,3	7,0							
Total Assets	1 078,5	1 089,7	1119,3	1 089,5	1 060,4	1 049,3	1 065,9	1 037,7	1 007,5	1 024,8

EXHIBIT 86: " BS CURRENT AND TOTAL ASSETS "

Liabilities (€ Millions)										
Accounts Payable	158,6	164,0	175,1	159,3	159,1	160,2	163,0	157,4	151,8	156,1
Accrued Expenses	21,6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Notes Payable/Short Term Debt	2,5	1,5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Current Port. of LT Debt/Capital Leases	57,3	66,0	60,5	62,5	60,6	59,8	60,8	59,1	57,2	58,3
Other Current liabilities, Total	25,1	52,2	52,0	38,1	36,9	36,4	37,1	36,0	34,9	35,5
Income Taxes Payable	11,3	2,4	3,1							
Other Payables	11,2	44,7	45,3							
Other Current Liabilities	2,6	5,1	3,7							
Total Current Liabilities	265,0	283,6	287,6	260,0	256,6	256,4	260,9	252,5	243,9	249,9
Total Long Term Debt	397,6	367,0	377,0	281,1	248,1	196,8	200,1	198,7	195,0	191,8
Long Term Debt	396,6	366,3	329,8							
Capital Lease Obligations	1,0	0,7	47,2							
Total Debt	457,4	434,5	437,5	343,6	308,7	256,6	261,0	257,8	252,2	250,0
Deferred Income Tax	60,8	61,2	61,8	64,6	62,6	61,7	62,8	61,0	59,1	60,2
Deferred Income Tax - LT Liability	60,8	61,2	61,8							
Minority Interest	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other Liabilities, Total	18,0	21,4	23,4	20,8	20,1	19,9	20,2	19,6	19,0	19,3
Reserves	16,6	14,8	16,8							
Pension Benefits - Underfunded	0,0	0,0	0,0							
Other Long Term Liabilities	1,4	6,6	6,6							
Total Liabilities	741,4	733,2	749,7	626,4	587,4	534,8	544,0	531,8	517,0	521,2
Shareholders Equity (€ Millions)										
Common Stock, Total	180,0	187,2	194,7	194,7	194,7	194,7	194,7	194,7	194,7	194,7
Common Stock	180,0	187,2	194,7							
Additional Paid-In Capital	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retained Earnings (Accumulated Deficit)	171,8	185,4	209,0	233,5	243,2	255,1	271,7	286,3	301,2	315,9
Treasury Stock - Common	(10,8)	(13,7)	-38,0	-5,0	-5,0	-5,0	-5,0	-5,0	-5,0	-5,0
Unrealized Gain (Loss)	0,0	0,0	1,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other Equity, Total	(4,0)	(2,4)	2,1	-2,1	-2,1	-2,1	-2,1	-2,1	-2,1	-2,1
Translation Adjustment	0,0	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other Equity	0,0	0,0	2,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other Comprehensive Income	(4,0)	(2,6)	-0,4							
Total Equity	337,1	356,5	369,5	421,1	430,8	442,8	459,4	473,9	488,8	503,5
Total Liabilities & Shareholders' Equity	1 078,5	1 089,7	1 119,2	1 047,5	1 018,2	977,6	1 003,4	1 005,7	1 005,8	1 024,7

EXHIBIT 87: " BS TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY"

18.3.2. Profit & Loss Statement

	P&L Base Scenario									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Revenue	805,7									
Net Sales	805,7									
Other Revenue, Total	--									
Other Revenue	--									
Total Revenue	805,7	801,2	828,4	802,3	791,8	805,4	782,5	757,9	771,5	
Cost of Revenue, Total	402,5	396,8	398,5	398,0	400,9	403,6	384,3	379,8	390,6	
Cost of Revenue	402,5	396,8								
Gross Profit	403,1	404,4	429,8	404,2	390,9	401,8	398,2	378,0	380,9	
Selling/General/Admin. Expenses, Total	143,8	141,4	140,6	136,2	134,4	136,7	132,8	128,7	131,0	
Selling/General/Administrative Expense	34,0	27,6								
Labor & Related Expense	109,8	113,9								
Depreciation/Amortization	48,7	48,9	50,0	50,8	49,2	48,6	49,4	48,0	46,5	
Depreciation	48,7	48,9								
Unusual Expense (Income)	(4,3)	0,2	-0,6	-0,6	-0,6	-0,6	-0,6	-0,6	-0,6	
Impairment-Assets Held for Use	(4,3)									
Other Operating Expenses, Total	152,5	136,2	157,3	152,3	150,3	152,9	148,6	143,9	146,5	
Other Operating Expense	160,4	152,1								
Other, Net	(7,9)	(15,9)								
Total Operating Expense	743,2	731,1	777,1	742,9	724,2	739,4	728,4	698,0	704,2	
Operating Income	62,5	77,7	82,5	65,5	57,5	64,2	68,0	58,1	57,5	
Interest Expense, Net Non-Operating	(15,1)	(12,2)	(9,58)	(8,61)	(7,15)	(7,47)	(7,63)	(7,03)	(6,97)	
Interest Expense - Non-Operating	(15,1)	(12,2)								
Interest/Invest Income - Non-Operating	0,4	(0,6)	0,81	0,57	0,56	0,56	0,56	0,54	0,54	
Interest Income - Non-Operating	0,2	0,1	0,55	0,32	0,31	0,31	0,31	0,30	0,29	
Investment Income - Non-Operating	0,3	(0,6)	0,26	0,25	0,25	0,25	0,25	0,24	0,24	
Interest Inc.(Exp.),Net-Non-Op., Total	(14,7)	(12,80)	(10,39)	(9,18)	(7,71)	(8,03)	(8,19)	(7,57)	(7,51)	
Gain (Loss) on Sale of Assets	--	0,0	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Other, Net	(1,9)	2,4	(0,33)	(0,33)	(0,33)	(0,33)	(0,33)	(0,33)	(0,33)	
Other Non-Operating Income (Expense)	(1,9)	2,4	(0,33)	(0,33)	(0,33)	(0,33)	(0,33)	(0,33)	(0,33)	
Net Income Before Taxes	45,9	67,2	71,80	56,00	49,50	55,81	59,44	50,19	49,71	
Provision for Income Taxes	13,4	18,3	17,95	14,00	12,37	13,95	14,86	12,55	12,43	
Net Income After Taxes	32,4	48,9	53,85	42,00	37,12	41,86	44,58	37,64	37,28	
Minority Interest	--	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Net Income Before Extra. Items	32,4	48,9	53,8	42,0	37,1	41,9	44,6	37,6	37,3	
Discontinued Operations	--	--	--	--	--	--	--	--	--	
Total Extraordinary Items	--	--	--	--	--	--	--	--	--	
Net Income	32,4	48,9	53,8	42,0	37,1	41,9	44,6	37,6	37,3	

EXHIBIT 88: "P&L BASE SCENARIO"

P&L Pessimistic Scenario									
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue	805,7								
Net Sales	805,7								
Other Revenue, Total	--								
Other Revenue	--								
Total Revenue	805,7	801,2	811,8	770,5	745,2	742,9	707,3	671,3	669,8
Cost of Revenue, Total	402,5	396,8	390,6	378,4	377,3	376,1	354,5	329,7	339,1
Cost of Revenue	402,5	396,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Gross Profit	403,1	404,4	421,2	392,1	367,9	366,7	352,9	341,6	330,7
Selling/General/Admin. Expenses, Total	143,8	141,4	137,8	130,8	126,5	126,1	120,1	114,0	113,7
Selling/General/Administrative Expense	34,0	27,6							
Labor & Related Expense	109,8	113,9							
Depreciation/Amortization	48,7	48,9	50,0	50,8	49,2	48,6	49,4	48,0	46,5
Depreciation	48,7	48,9							
Unusual Expense (Income)	(4,3)	0,2	(0,6)	(0,6)	(0,6)	(0,6)	(0,6)	(0,6)	(0,6)
Impairment-Assets Held for Use	(4,3)	0,0							
Other Operating Expenses, Total	152,5	136,2	154,1	146,3	141,5	141,0	134,3	127,5	127,2
Other Operating Expense	160,4	152,1							
Other, Net	(7,9)	(15,9)							
Total Operating Expense	743,2	731,1	762,6	719,4	684,5	681,9	656,0	630,5	617,4
Operating Income	62,5	77,7	79,9	64,8	51,3	51,6	49,7	52,8	43,9
Interest Expense, Net Non-Operating	(15,1)	(12,2)	(9,6)	(8,6)	(7,2)	(7,5)	(7,6)	(7,0)	(7,0)
Interest Expense - Non-Operating	(15,1)	(12,2)							
Interest/Invest Income - Non-Operating	0,4	(0,6)	0,8	0,6	0,6	0,6	0,6	0,5	0,5
Interest Income - Non-Operating	0,2	0,1	0,5	0,3	0,3	0,3	0,3	0,3	0,3
Investment Income - Non-Operating	0,3	(0,6)	0,3	0,3	0,2	0,3	0,2	0,2	0,2
Interest Inc.(Exp.),Net-Non-Op., Total	(14,7)	(12,8)	(10,4)	(9,2)	(7,7)	(8,0)	(8,2)	(7,6)	(7,5)
Gain (Loss) on Sale of Assets	--	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other, Net	(1,9)	2,4	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)
Other Non-Operating Income (Expense)	(1,9)	2,4	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)
Net Income Before Taxes	45,9	67,2	69,2	55,3	43,3	43,3	41,2	44,9	36,1
Provision for Income Taxes	13,4	18,3	17,3	13,8	10,8	10,8	10,3	11,2	9,0
Net Income After Taxes	32,4	48,9	51,9	41,4	32,4	32,4	30,9	33,7	27,1
Minority Interest	--	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net Income Before Extra. Items	32,4	48,9	51,9	41,4	32,4	32,4	30,9	33,7	27,1
Discontinued Operations	--	--	--	--	--	--	--	--	--
Total Extraordinary Items	--	--	--	--	--	--	--	--	--
Net Income	32,4	48,9	51,9	41,4	32,4	32,4	30,9	33,7	27,1

EXHIBIT 89: "P&L PESSIMISTIC SCENARIO"

P&L Optimistic Scenario									
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue	805,7								
Net Sales	805,7								
Other Revenue, Total	--								
Other Revenue	--								
Total Revenue	805,7	801,2	844,9	834,7	840,2	871,8	864,0	853,5	886,2
Cost of Revenue, Total	402,5	396,8	406,5	410,0	425,4	441,4	433,0	419,1	448,7
Cost of Revenue	402,5	396,8							
Gross Profit	403,1	404,4	438,4	424,7	414,8	430,4	431,0	434,3	437,5
Selling/General/Admin. Expenses, Total	143,8	141,4	143,4	141,7	142,6	148,0	146,7	144,9	150,4
Selling/General/Administrative Expense	34,0	27,6							
Labor & Related Expense	109,8	113,9							
Depreciation/Amortization	48,7	48,9	50,0	50,8	49,2	48,6	49,4	48,0	46,5
Depreciation	48,7	48,9							
Unusual Expense (Income)	(4,3)	0,2	(0,6)	(0,6)	(0,6)	(0,6)	(0,6)	(0,6)	(0,6)
Impairment-Assets Held for Use	(4,3)	0,0							
Other Operating Expenses, Total	152,5	136,2	160,4	158,5	159,5	165,5	164,0	162,0	168,2
Other Operating Expense	160,4	152,1							
Other, Net	(7,9)	(15,9)							
Total Operating Expense	743,2	731,1	791,7	775,1	765,6	791,9	790,5	788,7	802,1
Operating Income	62,5	77,7	85,2	74,3	64,0	68,9	71,5	80,0	72,9
Interest Expense, Net Non-Operating	(15,1)	(12,2)	(9,6)	(8,6)	(7,2)	(7,5)	(7,6)	(7,0)	(7,0)
Interest Expense - Non-Operating	(15,1)	(12,2)							
Interest/Invest Income - Non-Operating	0,4	(0,6)	0,8	0,6	0,6	0,6	0,6	0,5	0,5
Interest Income - Non-Operating	0,2	0,1	0,5	0,3	0,3	0,3	0,3	0,3	0,3
Investment Income - Non-Operating	0,3	(0,6)	0,3	0,3	0,2	0,3	0,2	0,2	0,2
Interest Inc.(Exp.),Net-Non-Op., Total	(14,7)	(12,8)	(10,4)	(9,2)	(7,7)	(8,0)	(8,2)	(7,6)	(7,5)
Gain (Loss) on Sale of Assets	--	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other, Net	(1,9)	2,4	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)
Other Non-Operating Income (Expense)	(1,9)	2,4	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)
Net Income Before Taxes	45,9	67,2	74,4	64,8	56,0	60,6	63,0	72,1	65,1
Provision for Income Taxes	13,4	18,3	18,6	16,2	14,0	15,1	15,7	18,0	16,3
Net Income After Taxes	32,4	48,9	55,8	48,6	42,0	45,4	47,2	54,1	48,8
Minority Interest	--	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net Income Before Extra. Items	32,4	48,9	55,8	48,6	42,0	45,4	47,2	54,1	48,8
Discontinued Operations	--	--	--	--	--	--	--	--	--
Total Extraordinary Items	--	--	--	--	--	--	--	--	--
Net Income	32,4	48,9	55,8	48,6	42,0	45,4	47,2	54,1	48,8

EXHIBIT 90: " P&L OPTIMISTIC SCENARIO"

18.3.3. Cash-Flow Statement

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cash Flow-Operating Activities (€ Millions)											
Net Income	13,4	43,4	12,2	(25,3)	35,1	51,0	14,8	34,0	23,7	45,9	67,2
Depreciation	29,8	31,3	36,5	41,0	40,5	47,0	49,0	49,2	46,9	48,7	48,9
Other Adjustments to the Result, Net	--	2,9	12,5	10,8	14,7	(3,5)	19,7	18,3	16,2	9,1	7,7
Provisions	1,6	--	--	--	--	--	--	--	--	--	--
Provision for Assets Impairment	--	--	--	--	--	--	--	--	--	--	--
Pension Plan Changes	--	--	--	--	--	--	--	--	--	--	--
Provision PAAD	--	--	--	--	--	--	--	--	--	--	--
Minority Interest	--	--	--	--	--	--	--	--	--	--	--
Financial Income	(1,6)	--	--	--	--	--	--	--	--	--	--
Financial Expense	12,8	--	--	--	--	--	--	--	--	--	--
Grants	(1,1)	--	--	--	--	--	--	--	--	--	--
Other Operating Cash Flow	--	--	--	--	--	--	--	--	--	--	0,0
Balancing Item - Change in Cash	--	--	--	--	--	--	--	--	0,0	0,0	--
Dividends Received	--	--	--	--	--	0,0	0,0	0,0	0,0	0,0	0,1
Changes in Working Capital	--	12,4	43,3	20,2	29,7	18,5	(4,5)	(2,0)	6,4	(13,5)	8,4
Perimeter Variation	--	--	--	--	--	--	--	--	--	--	--
Inventories	2,3	--	--	--	--	--	--	--	--	--	--
Accounts Receivables	(7,2)	--	--	--	--	--	--	--	--	--	--
Income Tax Cost	0,0	--	--	--	--	--	--	--	--	--	--
Derivatives Result	0,0	--	--	--	--	--	--	--	--	--	--
Participations	0,0	--	--	--	--	--	--	--	--	--	--
Sale of Assets	0,0	--	--	--	--	--	--	--	--	--	--
Sale of Participations	0,0	--	--	--	--	--	--	--	--	--	--
Trade Provisions	0,0	--	--	--	--	--	--	--	--	--	--
Non-Financial Instruments	(0,7)	--	--	--	--	--	--	--	--	--	--
Accounts Payables	7,3	--	--	--	--	--	--	--	--	--	--
Interest Paid	(12,8)	(17,5)	0,0	0,0	0,0	--	--	--	--	--	--
Pension Fund Payments	0,0	--	--	--	--	--	--	--	--	--	--
Cash Taxes Paid	0,0	(12,0)	(13,8)	(4,5)	(5,3)	(17,4)	(8,4)	(3,0)	(13,4)	(6,6)	(10,9)
Other Operating Cash Flow	--	(1,1)	(3,9)	(2,8)	(3,0)	(2,7)	(1,3)	(1,3)	(1,2)	(1,0)	(0,3)
Cash from Operating Activities	43,8	59,4	86,8	39,4	111,8	92,8	69,3	95,4	78,6	82,6	121,1

EXHIBIT 91: "CASH FLOW FROM OPERATING ACTIVITIES"

Cash Flow-Investing Activities (€ Millions)											
Acquisition of Business	--	(18,8)	(64,3)	(23,8)	(0,2)	0,0	--	(22,5)	0,0	--	(0,6)
Sale of Subsidiaries	0,0	2,3	0,4	0,0	0,0	--	--	--	--	--	--
Balancing Item - Investing	--	--	--	--	--	--	--	--	0,0	--	0,0
Interest Received	1,6	3,6	3,8	1,2	0,3	2,2	2,3	0,5	0,5	0,4	0,2
Dividends Received	--	--	--	--	0,0	0,0	--	--	--	--	--
Outflows of Cash from Investing Activiti	--	--	--	--	--	--	--	--	--	--	0,0
Purchase of Participation Investments	0,0	--	--	--	--	--	--	--	--	--	--
Purchase of Other Investments	(17,1)	--	--	--	--	--	--	0,0	(0,4)	(1,1)	(0,3)
Purchase of Tangibles	(61,1)	(65,0)	(97,0)	(97,5)	(66,3)	(18,0)	(32,5)	(23,1)	(43,9)	(59,3)	(53,1)
Other Investing CF	--	--	--	--	--	--	--	0,0	--	--	--
Perimeter Variation	--	--	--	--	--	--	--	--	--	--	--
Goodwill	--	--	--	--	--	--	--	--	--	--	--
Purchase of Tangibles	--	--	--	--	--	--	--	--	--	--	--
Purchase of Intangibles	--	--	--	--	--	--	--	--	--	--	--
Purchase of Financial Investment	--	--	(0,8)	(0,1)	(1,6)	(0,3)	(0,2)	--	--	--	--
Sale of Other Financial Assets	--	3,8	0,3	0,6	0,2	0,0	2,7	2,9	0,0	--	0,3
Sale of Other Assets	--	--	--	--	--	(1,3)	0,0	0,0	0,2	0,2	--
Grants	0,0	--	--	--	--	--	--	--	--	--	--
Purchase of Other Assets	--	--	--	--	0,2	0,6	0,5	(0,7)	(0,7)	(1,6)	(0,3)
Sale of Assets	0,0	12,1	10,3	3,4	1,9	2,1	2,8	2,0	0,6	3,9	1,7
Cash from Investing Activities	(76,6)	(62,0)	(147,3)	(116,2)	(65,5)	(14,6)	(24,3)	(40,8)	(43,7)	(57,4)	(52,2)

EXHIBIT 92: "CASH FLOW FROM INVESTING ACTIVITIES"

Cash Flow-Financing Activities (€ Millions)											
Shares Issued	--	2,6	--	--	--	--	--	--	--	--	--
Common Stock, Net	--	--	--	--	--	0,0	(1,6)	0,0	--	(2,7)	(3,8)
Purchase of Own Shares	(0,6)	(3,5)	0,0	(2,0)	(0,1)	0,5	0,0	1,1	(5,0)	--	--
Sale of Shares	--	--	0,1	0,0	0,0	--	--	--	--	--	--
Dividends	(1,8)	(3,4)	(5,9)	(2,2)	0,0	(10,4)	(16,0)	(13,3)	(13,7)	(12,4)	(16,2)
Balancing Item - Financing	--	--	--	--	--	--	--	--	--	0,0	--
Profits	--	--	--	--	--	--	--	--	--	--	--
Provisions	--	--	--	--	--	--	--	--	--	--	--
Grants	10,1	--	--	--	--	--	--	--	--	--	--
Minority Interest	--	--	--	--	--	--	--	--	--	--	--
LT Debt Issued	50,5	39,5	111,8	52,4	5,5	60,3	--	--	152,6	41,5	40,0
Debt Repaid	--	--	--	--	--	(105,1)	(7,9)	(16,7)	(148,5)	(59,4)	(72,2)
LT Debt Variation	--	--	--	--	--	--	--	--	--	--	--
Other Creditors	0,0	--	--	--	--	--	--	--	--	--	--
ST Debt	--	--	--	--	--	--	--	--	--	--	--
Increase of Capital	0,8	--	--	--	--	--	--	--	--	--	--
Common Stock, Net	0,0	--	--	--	--	--	--	--	--	--	--
Other Equity Instruments	6,7	--	--	--	--	--	--	0,0	--	--	--
Investment Gains	0,3	--	--	--	--	--	--	--	--	--	--
Interest Paid	--	0,0	(19,7)	(19,8)	(22,9)	(22,8)	(21,5)	(22,3)	(22,3)	(19,4)	(11,6)
Other Financing Cash Flow	--	0,1	1,0	1,1	1,3	0,9	0,0	0,1	0,0	8,2	--
Cash from Financing Activities	66,1	35,2	87,3	29,5	(16,2)	(76,5)	(47,0)	(51,0)	(36,8)	(44,1)	(63,8)
Foreign Exchange Effects	--	0,0	(0,2)	(0,2)	0,0	--	0,0	0,1	0,0	(0,1)	(0,1)
Net Change in Cash	33,3	32,6	26,6	(47,5)	30,0	1,6	(1,9)	3,6	(1,9)	(19,0)	4,9
Net Cash-Beginning Balance	32,3	65,6	98,2	124,8	77,3	107,4	109,0	107,1	110,7	108,8	89,8
Net Cash-Ending Balance	65,6	98,2	124,8	77,3	107,4	109,0	107,1	110,7	108,8	89,8	94,8
Cash Interest Paid	12,8	17,5	19,7	19,8	22,9	22,8	21,5	22,3	22,3	19,4	11,6
Cash Taxes Paid	0,0	12,0	13,8	4,5	5,3	17,4	8,4	3,0	13,4	6,6	10,9
Free Cash Flow	(17,3)	(5,6)	(10,3)	(58,1)	45,5	74,7	36,8	72,3	34,6	23,3	68,0

EXHIBIT 93: " CASH FLOW FROM FINANCING ACTIVITIES"