MASTER IN
FINANCE

MASTER FINAL WORK
PROJECT WORK

EQUITY RESEARCH – CORTICEIRA AMORIM

FÁBIO FERREIRA MARTINS

OCTOBER – 2015

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SUPERVISION OF MASTER´S THESIS:

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Resumo

A Corticeira Amorim SGPS é líder mundial no mercado de cortiça, sendo uma empresa altamente exportadora. A sua estratégia passa por uma aposta forte em atividades de investigação e desenvolvimento e controlo de qualidade, que permitem fornecer uma qualidade diferenciadora e um leque de produtos alargado. Apesar da fraca conjuntura económica registada na Europa nos últimos anos, a empresa tem conseguido explorar novos mercados e novas tendências de modo a melhorar sustentadamente a sua rentabilidade operacional.

Este trabalho procura determinar o justo valor por acção da Corticeira Amorim, através da aplicação do método *Free Cash Flow to Firm*, que segundo a revisão de leitura é o mais adequado para a empresa em questão.

De acordo com os pressupostos utilizados, o valor da empresa fixa-se nos 5.59€ (por ação) o que concede ao papel um potencial de valorização de 18**%**, sendo atribuída uma recomendação de compra.

Abstract

Corticeira Amorim SGPS is a world leader in the cork market and a highly exporting company. Its strategy involves a strong focus on research and development and quality control activities, which provide a distinctive quality and an extended range of products. Despite the weak economic environment recorded in Europe in recent years, the company has been able to explore new markets and new trends consistently in order to sustainably improve its operating profitability.

This study seeks to determine the fair value per share of Corticeira Amorim, by applying the Free Cash Flow to Firm method, which after reading the review seems to be the most suitable for the company in question.

According to the assumptions we worked on, the company's value is fixed in 5.59 euros (per share), which gives the paper a potential appreciation of 18%, being assigned a purchase recommendation.

Keywords: Cork, value, company, growth, valuation.

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ABREVIATIONS

APT – Arbitrage Price Theory

APV – Adjusted Present Value

BU – Business Unit

CA – Corticeira Amorim

CAPEX – Capital Expenditure

CAPM – Capital Asset Pricing Model

DCF – Discounted Cash Flow

DDM – Dividend Discount Model

EBITA – Earnings Before Interests, Taxes and Amortizations

EBITDA - Earnings Before Interests, Taxes, Depreciations and Amortizations

EU – European Union

EURIBOR – Euro Interbank Offered Rate

EVA – Economic Value Added

FCFE – Free Cash Flow to Equity

FCFF - Free Cash Flow to Firm

GVA – Gross Value Added

PSI – Portugal Stock Index

SGPS – Sociedade Gestora Participações Sociais

TCA - Trichloroanisole

USA – United States of America

Introduction

This work has the final purpose to evaluate the company Corticeira Amorim SGPS in order to give an estimate of the intrinsic value per share on 31/12/2015. Through this analysis, we aim to attribute an investment recommendation by the comparison between the market price and the intrinsic value reached by this work. Despite the usefulness of this result, we should take into consideration that this analysis is based on assumptions and predictions that may be determinant to the results of this work and, consequently, its conclusion. In order to mitigate this risk, a sensitive analysis is performed.

Corticeira Amorim is the world cork leader, being committed with product diversification, market diversification and research and development. Except for the case of forests´ ownership, the company pursues a vertically integrated strategy that assures a full control of the production chain. The group activity is divided into 5 distinct business units accordingly to the products: raw materials, cork stoppers, floor and wall coverage, insulation cork and cork composites. Despite this diversification, the cork stoppers business continues to play a key role in the whole company business.

This work is structured in six major sections. The next section presents the Literature Review that gives the theoretical framework. Section 3 and 4 give a portray of cork industry and the company´s history. Corticeira Amorim valuation is conducted in section 5 and our investment recommendation is given in the last section.

2. Literature Review

2.1. Framework

In order to clearly understand the roots of an equity research method, the first section is based on a theoretical approach. Therefore, we suggest starting with the following questions: "What is value?" and "Why assess the company´s value?"

Accordingly to Koller et al. (2010), value is a standard of performance since it takes into account the long-term interests of all the stakeholders in a company. According to the same authors, it is important to keep the valuation through time and through different scenarios and circumstances to access the impact of the company´s value. Notwithstanding, it is important to stress out that the output of any valuation method should not and cannot be perceived as an absolute truth, since it is conditioned by the assumptions that are taken into account. A much straighter response is provided by Fernandez (2007) that states the importance of valuation in company buying and selling operations: indicating the highest price the buyer should pay and, on the other hand, the lowest price at which the seller should agree to sell.

2.2. Valuation Models

The first step of a valuation is to select the most suitable method regarding the company in question. There is not a rule that states which is suitable or not, nonetheless, it is important to analyze the business specificities and it is important to compare the value between other comparable companies. Pinto et al. (2010) set the following three criteria: consistency with the company in question, suitable with the available data and consistent with goal of valuation.

Broadly speaking, we can conceive four distinct approaches: the Discounted Cash Flow valuation, the accounting and liquidation value, the Relative valuation and the Contingent Claim valuation. On Figure I, the several models are synthesized accordingly to Damodaran (2007, 2012).

Figure 1 - Valuation Models

Discounted Cash Flow	Accounting and Liquidation value	Relative Valuation	Contingent Claim Valuation
Firm Valuation Models • Free Cash Flow to Firm • Economic Value Added	**Book Value**	**Price Earnig Ratio**	**Black and Scholes**
Equity Valuation Models • Dividend Discount Model • Free Cash Flow to Equity	**Liquidation value**	**EV/EBITDA**	
		Price to Book Value	
APV (Adjusted Present Value)	**Replacement cost**	**Price/ Sales per share**	**Binomial**
		V/Sales	

Source: Damodaran (2007 and 2012)

Having with starting point the characteristics of Corticeira Amorim, the necessary available data for the construction of a valuation and the purpose of this work, the Discounted Cash Flow approach appears to be the most adequate. Since the model accounts for: endogenous and exogenous assumptions; the impact of the operating strategies and the possibility to value different business (Pinto et al., 2010). Additionally, a relative valuation is performed in order to have a wider perspective in

terms of valuation outputs. Besides, those valuation methods applied to the company in study, the remaining approaches and its respective methods are also covered in **Appendix 2.**

2.2.1. Discounted Cash Flows

The discounted cash flow (DCF) methods are based on expected future cash flows discounted at a rate accordingly to its associated riskiness. (Cooper & Nyborg, 2006; Fernández, 2007)

$$\text{Value of Assets} = \frac{E(CF1)}{(1+r)} + \frac{E(CF2)}{(1+r)^2} + \frac{E(CF3)}{(1+r)^3} + \frac{E(CFn)}{(1+r)^n} \qquad (1)$$

Whereas:

$E(CF_t)$ = Expected Cash Flow in period t

r = discount rate of each estimated cash flow

n = last period of analysis

Despite these set of methods are the most used methodology in valuation firms, there is lack of consensus about its precision, since there is no guaranty that the future cash flows (and other assumptions taken into account) are accurately estimated. This may impact dramatically the valuation output (Dixit & Pindyck, 1995; Leslie & Michaels, 1997).

Accordingly to the finance literature there are several discount cash flow methodologies. This work will briefly explain the following models: Firm Valuation Models, Equity Valuation Models and Adjusted Present Value (Damodaran, 2007).

From the Discounted Cash Flow models, the most commonly used is the Free Cash Flow to the Firm (FCFF) which is discussed in the next chapter, since it will be applied on methodology.

2.2.1.1. Free Cash Flow to Firm (FCFF)

The FCFF discounts the after tax free cash flow released by operation activity at the weighted average cost of capital (WACC) which includes all types of capital: equity, debt and hybrid. Then, the claims on cash flow of debt holders and other non-equity investors are subtracted from company´s value in order to determine equity holders' value (DePamphilis, 2010; Koller et al., 2010; Luehrman, 1997). Translating this concept mathematically comes (Fernandez 2007; DePamphilis, 2010):

$$FCFF = (1 - t) * EBIT + Depreciations\ and\ Amortizations$$
$$+\ \Delta Provisions - \Delta Net\ Working\ Capital \qquad (2)$$
$$-\ Capital\ expenditures$$

Note, that the depreciations, amortizations and the variation of provisions are summed to the net operational income, instead of subtracted, since are costs which do not result in outflows.

Damodaran (2007) presents the present value of expected free cash flows to the firm being computed as it follows:

$$Value\ of\ a\ Firm = \sum_{t=1}^{t=+\infty} \frac{FCFF}{(1\ +\ WACC)^t} \qquad (3)$$

Where,

FCFFt = Free Cashflow to firm in year t

WACC = Weighted average cost of capital

Damodaran (2007), Koller et al. (2010) and Pinto et al. (2010) argue that this model is suitable to companies with a stable capital structure, since this assures a steadier WACC during the forecasted period. The companies which do not comply with this assumption will have different WACC values during the forecasted period, since leverage influence the perception of risk for the shareholders.

Further Concepts on DCF models

WACC and Capital Structure

As previously mentioned, the WACC is an average weighted by the proportion of equity and debt on capital structure, combining the cost of capital and the cost of debt. Mathematically comes:

$$WACC = \frac{E}{E + D} * k_e + \frac{D}{E + D} * k_d * (1 - T) \tag{4}$$

Where,

E-Total outstanding capital

D- Total outstanding debt

k_e cost of capital

k_d cost of capital

It is plausible to think that the capital structure can drastically change thought time, changing the WACC through time. Pinto et al. (2010) and Ferris et Petitt (2002) suggest

using *target* weights instead of current weights. These authors refer that the *target* weights are the expected ones over time.

The risk free rate is the rate of return on asset with no risk at all. Damodaran (2015) states that this variable will have impact on the cost of capital, taking the assumption that the long-term government bonds are risk free assets.

The market risk premium consists in the difference on returns between a free risk asset and a riskier asset like stocks or corporate bonds (Ross et al., 2012). Damodaran (2012) stress out that this concept will have an impact on both cost of equity and cost of debt.

The beta parameter measures the sensitivity of a company in respect to its market. Thus, if beta is larger than 1, the company ends up being riskier than the market. Damodaran (2012) shows that the historical market beta can be estimated by linear regressions of corporate stocks past returns against the proper market index's returns, representing a proxy to the true market portfolio. Blume (1971) suggests that the beta value in the future tends to the mean value of 1.0, thus the author suggest multiplying the raw beta by a weight of 2/3 and add 1 multiplied by 1/3, in order to reflect this evidence.

According to Goedhart et al. (2005) the cost of equity is estimated by the expected rate of return of the company. The asset-pricing models more often used to estimate this value are: the Capital Asset Pricing (CAPM) and Arbitrage Pricing Theory (APT). Later on, CAPM will be applied in such way that return on a stock is given by the

product of the stocks beta with market risk premium plus a rate of return in a risk free asset.

The cost of debt is a cost a company supports when borrowing money from other parties. Damodaran (2001) explains that this cost is result of: probability of default risk, level of interest rates in the market and tax deductibility associated to the interest payments. Following this train of thought, two distinct approaches are possible in order to reach an estimate to this item. The first one is only applicable to the companies that bearing long-term bonds listed in an exchange (Koller et al., 2015). If it is not the case, the cost of debt can be computed thought its historical values in order to find the pretax cost of debt. Afterwards, we apply the marginal tax rate in order to reflect the tax benefit resulting from interest (Damodaran, 2009).

Terminal Value

Damodaran (2012) explains that due to the uncertainty of futures cash flows, it is necessary to choose a time frame and then calculate the terminal value that reflects the value of the firm at that point. Subsequently, it is assumed that the firm will be facing a steady-state phase with a constant growth rate. Koller et al. (2010) recommended a time frame of 5 to 7 years while forecasting future cash flows until the terminal value, Notwithstanding sometimes it is quite difficult to determine when a company reaches that steady-state.

2.2.3. Relative valuation

Koller et al (2010) stress that with the application of the multiples, a company is able to compare its performance with the other market players. Although, the useful application of these methods, the same authors alert for the common misunderstood and misapplied of multiples, highlighting the importance of singularity of each company. Hereupon, it´s natural that, for example, two companies in the same industry, have a different P/E ratio, since they can have drastically different expected growth rates, returns on invested capital, and capital structures. Thereby Koller et al. (2010) reinforce the importance of the initial selection process of the peers, these should present similar expectations for return on invested capital and for growth. Also stressing, the multiples should not be based on historical performance but on future events, since those produce more accurate forecasts.

2.2.4. Sensitivity Analysis

Graham and Dodd (1934) stress the importance of considering a range of intrinsic values, instead of only have static values. Thus, it raises the need of performing a sensitive analysis that allows understanding what happens to a company´s value if occurs a change in some inputs.

3. Cork Industry

Despite the imprecise and non-consensual framework regarding the start of cork use or its initial main purposes, the reinvention of stoppers, in the middle ages, appears to be the booster for this material (Pestana e Tinoco, 2009). Although there are new products made by cork, there is a high exposure of the cork industry to the wine

industry. This dependence accounts for 68.4% of total sales and make France, Italy and the United States of the America, which are the key markets in wine industry (APCOR, 2013). Notwithstanding, in the last years the focus on product diversification allowed the emergence of different products and applications, in particular in the construction sector, which represents 24.5 percent of whole sales-including floors, insulation and coverings, blocks, plates, sheets, strips and other cork products (figure 1).

Figure 2 - Structure of cork sales (exports) per product type
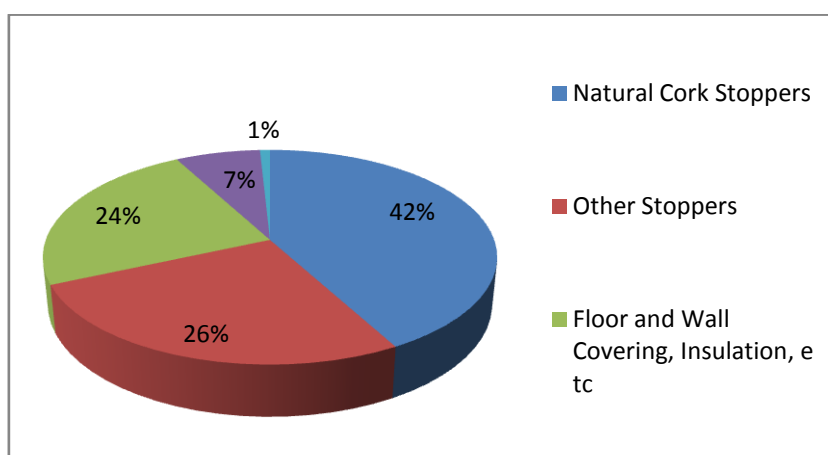
Accordingly with ADC (2012), the cork industry can be divided by three different stages: the raw cork market, the market for intermediate cork derivates and market of final cork derivatives products, which can subdivided by gross sales and retail sales. These markets are very conditioned by the rigidity of the quantity supplied and the quality of the cork, due to: specific cork soil limitations, limited density of trees per hectare and its slow growing.

Cork oak tree is a distinctive Mediterranean tree; despite all the attempts to spread the tree around the world had failed (USA, Latin America, Russia, China and South Africa). These failed experiments were not successful in producing cork with high

standards of quality that are required for industry purposes (Corticeira Amorim, 1983).

Thus, Portugal appears as the leader of Cork Oak Forest area (appendix 2).

Despite the positive contribution to environment, due to the cork stripping, Demertzi et al. (2015) and González-García et al. (2015) propose some improvements in the production procedures in order to reduce the negative environmental impact in Portugal.

3.1 Cork Industry in Portugal

In Portugal, the major concentration of cork oak forest is in the Alentejo (84.1%) (Appendix 3). Being inserted in the Forestry Industry, the Portuguese Cork business represents 16% of the GVA (Gross Value Added) of this industry and 0.2% of the national GVA (INE, 2013 and APCOR, 2014). Regarding the Portuguese trade balance, figure 3 depicts a positive contribute of the cork industry thought the last years. Although, that contribute appears to have a negative trend throughout the years in analysis, mainly, due to the fall of cork average prices (Figure 3). This fall in association with the international crisis made 2009 a year of many challenges and troubles for the industry.

Figure 3 - Trade Balance of the Portuguese Cork industry (Current Prices)
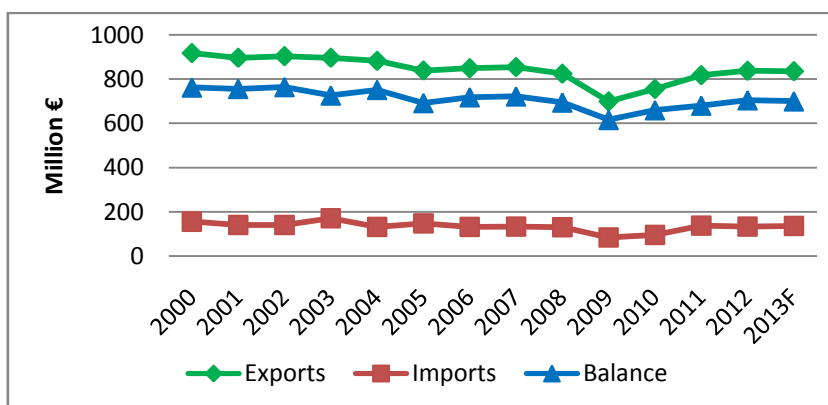
Source: APCOR   Yearbook

Figure 4 - Historical Price of Raw Cork in Portugal (€/@ in cell) ; @=14,688kg
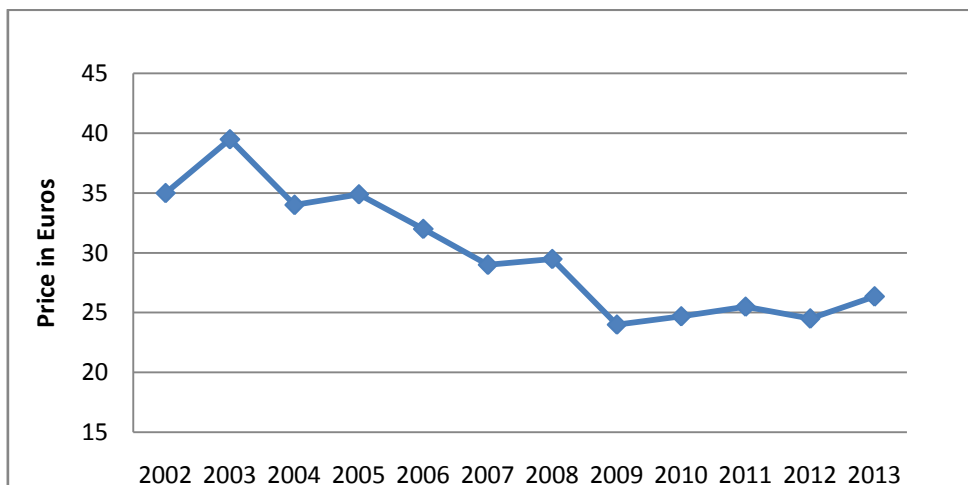
Source: UNAC 2014

Sierra-Pérez et al. (2015) characterize the Portuguese industry as an industry that produces and process raw cork with high added value, by opposition to Spain, which is mainly composed by half manufactured cork products. Exception made to the region of Cataluña, which is the global market leader in champagne stoppers.

Lastly, it is important to explain the big challenge for the sector in the last years: Trichloroanisole (TCA). This problem consists in the appearance of the cork taint in the wines and it is the basis for the rising of synthetic stoppers in the wine market. Sefton and Simpson (2005) identify the possible factors that are in the origins of TCA as: the solubility of the taint compounds in wine, their affinity for the surface and the interior parts of the cork and the volume of wine in contact with a closure.

4. Corticeira Amorim

The Corticeira Amorim (from now on, defined as CA) birth was in 1908 with the establishment of a small workshop producing cork stoppers in Santa Maria de Lamas,

in the north region of Portugal. In 1922, the company *Amorim e Irmãos* was created with the aim to export the cork stoppers, this expansion was achieved through a backward vertical integration during the next years. The official appearance of *Corticeira Amorim Lda* was in 1962 with the focus on reaching foreign markets which were considered as cork producers and, later, in cork consumer markets (Branco et al., 2014).

4.1. Cork Cluster

Branco et al. (2014) e Branco & Parejo (2011) present the importance of the cork cluster established in Santa Maria da Feira. This cluster was characterized by high specialized family nature business. Due to this, the Amorim group acquired such competitive advantages such as: lower labor costs, social networks and high degree of cooperation between the firms in the cluster. Notwithstanding, Lopes & Branco (2013) conclude that there is no empirical evidence that supports the economic advantages due to geographical concentration of cork production.

4.2. CA Today

Nowadays, the CA business model is characterized by its dominant position in the cork business; this leadership is based nearly on a 25% world market share in cork stoppers, a 80% market share in cork Insulation, 55% market share in composite cork and 65% market share in floor and wall coverage (Corticeira Amorim website).

CA business model is based on the control of the whole business production chain from raw material storage, production, distribution and sale of the final products. This vertically integrated strategy has been present in the company vision since ever and

allows the group to have a: flexibility in its production process and give a better response to different needs in the diverse markets; create entry barriers and gain competitive advantage over competitors which are mainly either producers or distributors; have a portfolio diversification that can mitigate the operational market risks and, simultaneously, adjust to the market trends and needs. In order to deeply understand the reality of CA business, a SWOT analysis is performed on the appendix 4.

4.3. Business Areas

CA is divided into five business units: Raw Materials, Cork Stoppers, Floor and Wall Coverings, Composite Cork and Insulation Cork (appendix 5).

In 2014, the company was present in more than 63 countries, with: 30 industrial units, 83 companies and 248 agents (appendix 6). Concerning the weight of sales per business units, the cork stoppers represents 60%, 22% for the Floor and Wall Coverings, the Composite cork market 15%, and 1% of the market of Insulation Cork and the rest 1% are revenues from raw materials.

4.4. Revenues, Margins and Leverage

Table I depicts that CA is a very international company, since in 2014 only 4.4% of whole revenues were generated in the Portuguese market. The high relevance of the European Union (EU) can be explained by the dependence relationship of the cork industry to the wine industry. In the chapter, France, Germany and Italy take the large share of the sales. Notwithstanding, these are very mature markets, and that is why, in the last years, CA is committed in the exploration of new markets such as USA, China

and Latin America. Actually, nowadays, USA is a key market, but it is perceived as a very compelling one, due its dimension and potential growth.

Table I - Sales Breakdown per Country

Sales breakdown per country	2014		2013	
Europen Union	341,459	60.9%	329,777	60.7%
From which: Portugal	24,834	4.4%	27,042	5.0%
Other European countries	27,310	4.9%	32,723	6.0%
United States	107,967	19.3%	99,107	18.3%
Other American countries	39,104	7.0%	37,319	6.8%
Australasia	35,749	6.4%	35,689	6.6%
Africa	8,750	1.6%	8,564	1.6%

Source: Annual Reports

As displayed in Figure 5, the year 2009 was a very tough year. Revenues fall down by about 11% mainly due to: the crisis associated with a weak demand observed worldwide and by the gain of the market share of the synthetic stoppers, in the stoppers market. In 2009, the synthetic stoppers had a 35% of market share against a 25% market share in 2004. Nonetheless, by the end of 2014, the cork made stoppers recover its market share to 70%, due to more competitive prices and benefiting from bankruptcy of four major companies of synthetic stoppers. The sustainable growth of CA revenues can be also explained by the exploration of new products developed by R&D and new markets (mainly the USA).

Figure 5 - Sales in thousands of euro
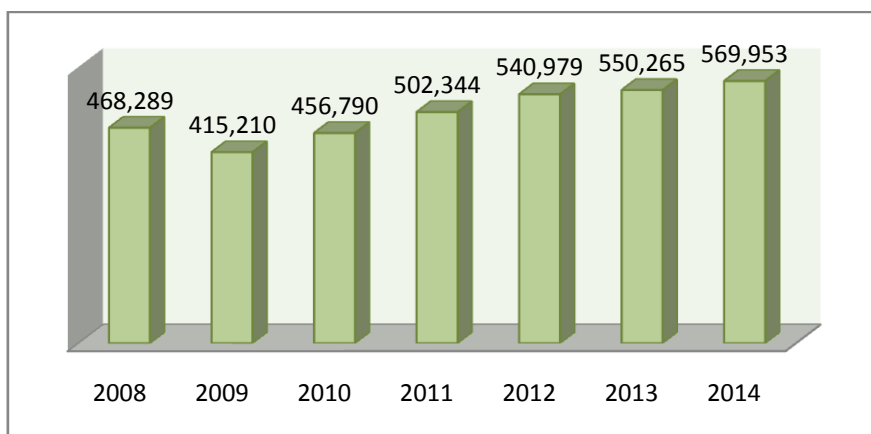
Source: Annual Reports and own calculations

Figure 6 confirms 2009 as the worst year, also in terms of EBITDA amounts, but after that year the figure depicts a general trend to growth except in 2013. In this year the fall in EBITDA is explained by the fall of EBITDA MARGIN and by unfavorable foreign exchange movements. Looking forward to 2014, the recovery of both EBITDA and EBITDA margin was mainly due to the stoppers BU, which has registered an increasing of a 13% of its own EBITDA against 2013.

Figure 6 - EBITDA and EBITDA MARGIN from 2008-2014
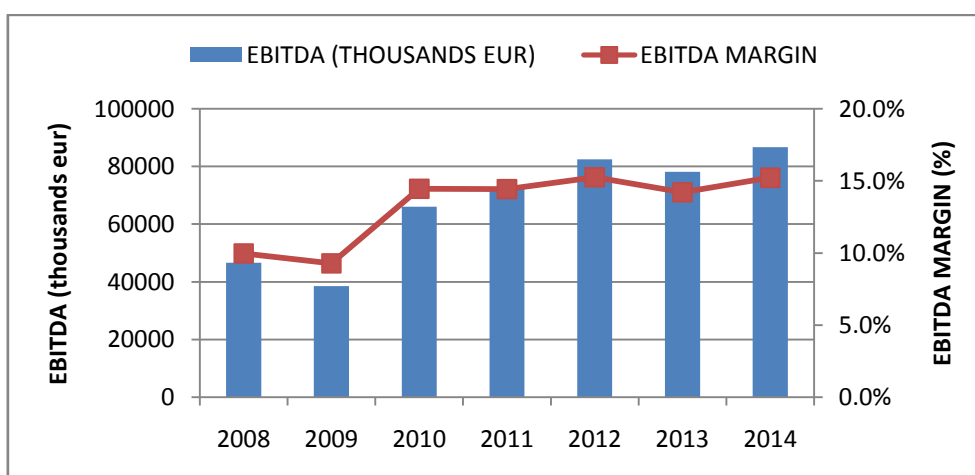
Source: Annual Reports and own calculations

The figure 7 clearly evidenced that CA has been taking a serious commitment in reducing its levels of leverage in the last years. The company has about 66 million of

euros of debt maturing within 1 year; however these obligations can be met by using the available credit lines of about 126 millions of euros. Moreover, the financing agreement with European Investment Bank of about 35 million euros (which represents 43% of the Net Debt) provides evidence that point out to a solid balance sheet structure and to mitigation of liquidity risk.

Figure 7 - Net Debt and Net Debt/EBITDA from 2008-2014
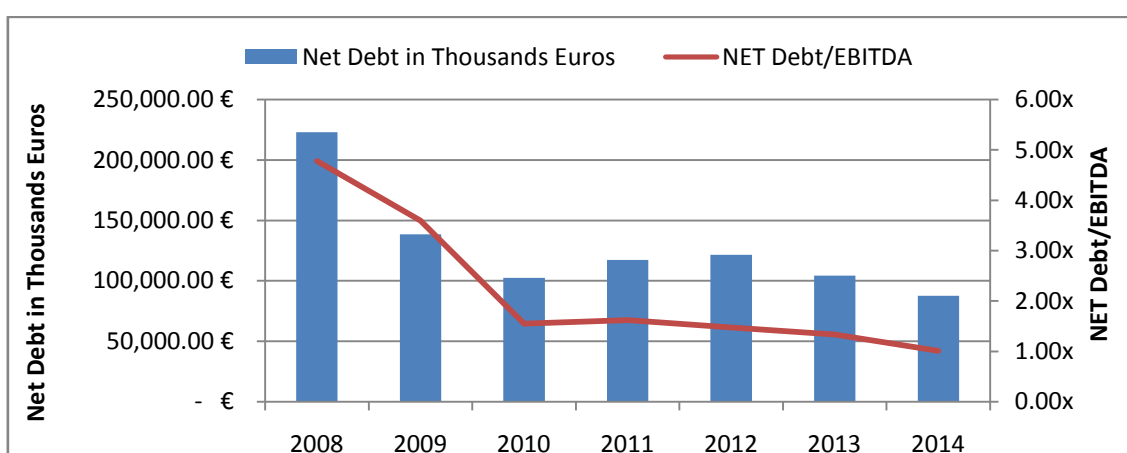
Source: Annual Reports and own calculations

CA is listed in Euronext Lisbon since 1991, but it does not make part of the PSI 20 – the main index in the Portuguese capital market. Since 2010, the stock exhibited high returns, granted by a sustainable revenues recovery and by the distribution of additional dividend payments since 2012. This performance captured my attention and led me to understand the fundamentals of the evolution over these years.

Regarding the shareholder structure, by the end of 2014, it was composed by 133 000 000 ordinary shares, of which 5% are owned by CA itself, 10% are available on the market and 85% were own by the holdings of Amorim´s Group (appendix 7). Thus, the capital structure of CA is very concentrated and it is very noticeable the relevance and the influence of the family Amorim in the company in study.

5. Methodology

The company will be valuated through the FCFF method, since this technique is more appropriate for companies with stable financial structures, which is the case of CA with a shareholder equity ratio that has been between 45.9% and 51.1% since 2009. The forecast period is 6 years, since after that it is expected that the company´s cash flow will grow at a constant rate.

In order to have another insight of company´s value, a relative valuation of the company was also elaborated, using the following multiples: enterprise value to EBITA (EV/EBITA) and price-to-earnings (P/E).

More that obtain a target price for CA, the scope of this work goes into a deep comprehension of: the cork market and its specificities, the company historical performance and its prospects for the upcoming years, taking into account the expected future macroeconomic scenario (appendix 8).

Firstly, we analyzed the historical activity of each business unit and its forecasts: (Table II and Table III). The historical weight of each BU is presented on appendix 9.

Table II – Historical Trade Sales by Business Unit in Euros

Trades Sales by BU							
BU	2008	2009	2010	2011	2012	2013	2014
Raw materials	6,346	5,652	3,893	3,441	7,295	4,688	5,253
Cork Stoppers	257,787	236,191	266,028	291,362	317,490	329,473	353,306
Floor and Wall Coverage	131,817	111,162	110,693	117,368	123,058	118,813	113,345
Composite Cork	63,421	53,963	66,520	73,855	77,350	82,276	79,431
Insulation Cork	8,862	8,242	8,822	8,182	8,291	7,197	8,138
Holding	55	-	834	635	756	53	866
	468,290	415,210	456,790	494,842	534,240	542,500	560,340

Source: Annual Reports

Table III – Forecasted Trade Sales by Business Unit in Euros

Trades Sales by BU						
BU	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Raw materials	5,358	5,465	5,575	5,686	5,800	5,916
Cork Stoppers	385,063	406,725	429,606	446,790	462,427	476,300
Floor and Wall Coverage	110,839	108,389	109,473	110,567	111,673	113,348
Composite Cork	87,374	91,306	95,415	98,754	101,717	104,768
Insulation Cork	8,382	8,466	8,551	8,636	8,722	8,810
Holding	866	866	866	866	866	866
	597,882	621,217	649,484	671,299	691,206	710,008

Source: Annual Reports and own calculations

5.1 Revenues prospects per Business Units

5.1.1. Raw Materials

The Raw Materials BU revenues came, mostly, from sales to other units of the group.

The weight of this type of sales represented, on average of the last 7 years, roughly,

95%. For the upcoming years, the company expects a similar levels of activity for this

BU, thus we assume a 2% growth per year until 2020.

Despite, the residual contribution of the sales of this BU to the consolidated accounts,

this BU plays a major role on the production process, since its main goal is to assure

the supply of the necessary cork and its quality to the other business units. This BU is

very committed with R&D for two critical areas: the resolution of cork's sensory based

problems and modernizing cork oak growth practices. These investments seek to have

efficiency gains and to contribute to improving the quality of the cork.

5.1.2. Cork Stoppers

The Cork Stoppers BU represents more than 60% of the trade sales of the CA. This fact

makes this BU to be in the center of the major strategic decisions and movements of

the group. In terms of growth and its potential, this BU had, in 2009, a come-down by 8.4% of its business. Nonetheless, since that point, the revenues observed an appreciable sustainable growth. Here, the strategic focus was made in accentuated improvements in the sensory qualities of the products and in promoting the innovative product range available to the market (e.g. Helix and Top Series).

The forecasts for this BU are based on growth expectations in the wine industry for the upcoming years, given its dependence on that industry. Vinexpo forecasts a growth just over 1% per year for the period between 2015 and 2018 (appendix 10). However, the business observed the business observed an annual growth rate of 5.6% between 2008 and 2014. In order to capture an environment of more favorable exchange rates, especially the euro-dollar, it is forecast a sales growth by 9% in 2015 and a growth of 5.6% for 2016 and 2017. Since then, the word wine consumption and production are expected to have more modest growth, leading, progressively, to steady growth of 2% on cork stoppers on 2020.

5.1.3. Floor and Wall Coverage

The Floor & Wall Coverings BU appears as the second largest contributor for the total revenues of CA. In 2009, this BU had a come-down of more than 15% in its turnover and in the last exercises struggled for growth, oscillating between growth and contraction of its activity. These poor levels on revenues and on profitability are justified by the exposure of this BU to the construction sector, which was one of the most affected with the crisis. In 2014, the turnover for this BU decreased by 4.6%, mainly due to the political and economic situation prevailing in Eastern Europe and the

sanctions applied to Russia. Besides this struggles, this BU has shown a tremendous improvement in terms of EBITDA margin, since this margin was 8.8% in 2008 and 13.3% in 2014. This improvement was driven by the constant implementation of optimization measures to processes and their respective resources.

Regarding the revenues forecast for this BU, despite the encouraging prospects for the construction sector (**appendix 11**), we should consider that the historical 6-year average of annual growth rates was -2.2% due to the aforementioned struggles. Thus, we assume a -2.2% decreasing for 2015 and 2016 and since then a growth of 1.5% growth per year until 2020.

5.1.4. Composite Cork

As well as all the others units, the Cork Composite BU observed a recovering from the general turnover decay in 2009. The dependence with building, aeronautical, wine and appliances, whose activity levels were very negatively impacted by the crisis, drove to that decay. In 2014, this unit observed a decrease of its turnover by 3.5%. This shortfall is explained by: the deactivation of Drauvil production unit and substantial decrease in sales of goods (-6.6M€). The company expects that the systematic development of innovative products and the higher efficiency resulting from the geographical concentration in Portugal will be the drivers of growth. This way, for the upcoming years, we estimate a 10% growth for 2015, due to high exposure to USD. Thus, a weaker euro-dollar will be the driver for growth, particularly, in this BU. For 2016, we estimate that the growth will be at the average annual growth as 2008-2014, which was 4.5% and after that it is expected to gradually slow down until 3% in 2020.

5.1.5. Insulation Cork

This is the less representative BU, in terms of revenues from total sales. Since 2008, this BU has shown a negative trend in its numbers. Regarding revenue perspective for the upcoming years, despite the 6-year average annual growth rate was about -1%, the 2015 it is estimated a growth of about 3% and from then of 1%. This expected recovery is based on: this BU observed a positive growth of more than 13% in 2014 and it is expected that will explore the opportunities regarding the cork agglomerates in the Asian and Middle East markets to expand its activity levels.

5.2 Operating Expenses

At this point, we take the assumption suggested by Koller et al. (2010), in which, the operating costs are forecasted using the average historical weight of each item on sales. Nevertheless, the depreciations were forecasted using the historical weight on gross fixed assets as the forecast driver. Thus, it is assumed that this rate will keep stable during the forecasted period.

After forecasting the operating expenses, it is reached the EBITDA, which is split by BU, accordingly to the historical contribution of each BU to the EBITDA of the company as the depicted on Table IV and Table V.

Table IV – Historical EBITDA Split per Business unit

EBITDA Split								
BU	2008	2009	2010	2011	2012	2013	2014	Weight
Raw materials	9,816	4,079	20,143	19,598	14,200	15,829	17,492	21.0%
Cork Stoppers	23,678	29,374	34,118	37,385	45,791	41,414	46,830	56.1%
Floor and Wall Coverage	9,924	1,229	6,327	10,315	14,436	15,177	15,520	14.7%
Composite Cork	1,672	4,564	7,334	8,041	8,877	6,726	7,748	9.4%
Insulation Cork	1,903	2,114	2,299	2,010	1,759	1,349	1,653	3.1%
Holding	-339	-2,838	-4,215	-4,912	-2,598	-2,368	-2,520	-4.3%
	46,654	38,522	66,006	72,437	82,465	78,127	86,722	100%

Source: Annual Reports

Table V – Forecasted EBITDA Split per Business unit

EBITDA Split						
BU	2015	2016	2017	2018	2019	2020
Raw materials	18,808	19,542	20,431	21,117	21,744	22,335
Cork Stoppers	50,313	52,277	54,655	56,491	58,166	59,749
Floor and Wall Coverage	13,206	13,722	14,346	14,828	15,268	15,683
Composite Cork	8,447	8,776	9,176	9,484	9,765	10,031
Insulation Cork	2,765	2,873	3,004	3,105	3,197	3,284
Holding	-3,887	-4,039	-4,222	-4,364	-4,493	-4,616
	89,653	93,152	97,390	100,662	103,646	106,466

Source: Annual Reports and own calculations

5.3 Gross Fixed Assets and Net Fixed Assets

There is a need to forecast gross fixed assets since it is assumed that the depreciations were derived from a constant rate of these values. Thus, the gross fixed assets were forecasted based on its historical growth per category, instead of using the sales as the forecast driver (Table VI and Table VII).

Table VI – Historical Gross Fixed Assets in Euros

GROSS ASSETS							
ASSETS TYPE	2008	2009	2010	2011	2012	2013	2014
TOTAL GROSS PPE	497,711	515,609	520,580	535,737	580,225	597,859	615,687
Lands and builduings	215,568	217,006	206,169	209,776	218,624	225,357	229,817
Machinery	248,109	264,889	277,480	286,731	320,142	326,674	348,850
Other	34,035	33,714	36,931	39,230	41,459	45,828	37,020
Intangible Assets	1,059	1,257	4,214	3,168	3,822	4,136	4,670
Investment property	17,196	10,149	14,320	15,078	15,641	15,489	15,432

Source: Annual Reports

Table VII – Forecasted Gross Fixed Assets in Euros

GROSS ASSETS						
ASSETS TYPE	2015	2016	2017	2018	2019	2020
TOTAL GROSS PPE	622,562	629,513	636,542	643,649	650,836	658,103
Lands and builduings	232,383	234,978	237,601	240,254	242,937	245,650
Machinery	352,745	356,684	360,666	364,693	368,765	372,883
Other	37,433	37,851	38,274	38,701	39,133	39,570
Intangible Assets	4,722	4,775	4,828	4,882	4,937	4,992
Investment property	15,604	15,779	15,955	16,133	16,313	16,495

Source: Annual Reports and own calculations

The net fixed assets forecast is computed thought the historical weights on gross fixed assets per item (on Table VIII), this approach was followed since it is assumed the company will not realize additional investments in the upcoming years.

Table VIII – Weight of Net Fixed Assets on Gross Fixed Assets

Net Assets/Gross Assets							
ASSETS TYPE	2008	2009	2010	2011	2012	2013	2014
Lands and builduings	41%	39%	39%	38%	38%	38%	38%
Machinery	28%	29%	27%	26%	26%	24%	25%
Other	15%	43%	34%	44%	39%	46%	22%
Intangible Assets	76%	54%	15%	13%	14%	17%	23%
Investment property	100%	100%	54%	50%	39%	34%	34%

Source: Annual Reports and own calculations

5.4. Capex & Net Working Capital

The CAPEX forecasts for the whole company are based on the annual variation of net fixed assets plus the total year depreciation. This amount is split by BU using the historical weights of each one in the whole CAPEX. It was assumed that CA will continue to invest in R&D activities in order to promote new cork solutions.

In respect to net working capital, the forecasts are based on the historical weight of each item in the sales. Nonetheless, for the inventories and the Trade Payables we used the historical weights of each item in cost of goods sold (Tables XI and Table XII). After forecasted the variation of Net working Capital, the amounts were split by BU accordingly the amounts of the major company of each BU (Table XIII).

Table IX – Historical Capex Breakdown by BU

CAPEX							
BU	2008	2009	2010	2011	2012	2013	2014
TOTAL	27,046	16,043	16,684	25,564	21,373	26,834	21,220
Raw materials	1,118	939	793	4,050	1,994	3,792	2,816
Cork Stoppers	8,875	7,144	9,463	12,253	13,152	11,920	12,917
Floor and Wall Coverag	12,430	5,367	3,798	2,964	1,267	3,507	1,409
Composite Cork	3,830	1,995	2,128	5,465	4,118	7,205	3,334
Insulation Cork	738	562	480	800	775	401	562
Holding	55	36	22	32	67	9	182

Source: Annual Reports

Table X - Forecasted Capex Breakdown by BU

CAPEX						
BU	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
TOTAL	37,839	27,033	27,335	27,640	27,948	28,260
Raw materials	4,338	3,099	3,134	3,169	3,204	3,240
Cork Stoppers	20,545	14,678	14,841	15,007	15,175	15,344
Floor and Wall Coverage	4,540	3,244	3,280	3,317	3,354	3,391
Composite Cork	7,262	5,188	5,246	5,305	5,364	5,424
Insulation Cork	1,042	745	753	761	770	779
Holding	111	79	80	81	82	83

Source: Annual Reports and own calculations

Table XI – NWC Breakdown

NWC									
Items	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**AVERAGE**	**DRIVER**
Inventories	205,659	174,789	184,798	224,922	231,211	244,063	247,633	86.86%	**WEIGHT COGS**
Trade receivables	103,423	98,584	110,311	116,758	124,108	121,069	122,606	23.00%	**WEIGHT ON SALES**
Current tax assets	20,322	16,570	16,595	3,092	4,852	8,026	2,233	0.85%	**WEIGHT ON SALES**
Other current assets	16,148	7,693	9,777	30,730	31,414	33,616	25,673	4.48%	**WEIGHT ON SALES**
Trade payables	33,267	74,601	97,787	105,939	99,240	125,203	115,303	41.21%	**WEIGHT COGS**
Other creditors	37,955	32,589	26,941	39,125	40,082	42,822	44,007	7.57%	**WEIGHT ON SALES**
Current tax liabilities	11,756	9,375	11,059	5,264	7,848	2,495	2,520	1.52%	**WEIGHT ON SALES**

Source: Annual Reports and own calculations

Table XII – Forecasted NWC Breakdown

NWC						
Items	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Inventories	260,123	270,275	282,573	292,065	300,725	308,906
Trade receivables	137,514	142,881	149,382	154,400	158,978	163,303
Current tax assets	5,098	5,297	5,538	5,725	5,894	6,055
Other current assets	26,767	27,811	29,077	30,054	30,945	31,787
Trade payables	123,424	128,241	134,076	138,580	142,689	146,571
Other creditors	45,275	47,042	49,183	50,835	52,342	53,766
Current tax liabilities	9,081	9,435	9,864	10,196	10,498	10,784

Source: Annual Reports and own calculations

Table XIII – ΔNWC forecast per BU

ΔNWC						
BU	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Raw materials	4,691	2,991	3,624	2,797	2,552	2,410
Cork Stoppers	5,107	3,256	3,945	3,044	2,778	2,624
Floor and Wall Cover.	2,527	1,611	1,952	1,506	1,375	1,298
Composite Cork	2,439	1,555	1,884	1,454	1,327	1,253
Insulation Cork	641	409	495	382	349	329
Holding	2	2	2	1	1	1

Source: Own calculations

5.5. WACC and Capital Structure

The German government bond for 10 years is used to estimate the risk free asset, thus it will be use the yield of this by the end of 2014– **0.77%** accordingly with Bloomberg.

The CA´s raw beta was approximately **0.70**, which was reached using the monthly returns for the CA´s stock price and the general PSI index (since CA is not part of PSI 20). However the adjusted beta is **0.80**, after making the adjustment proposed by Blume (1971) in the literature review.

Concerning the corporate tax rate, it was considered the Portuguese marginal tax rate, since a major part of company taxable income is based on Portugal. Presently, this tax comprises: the nominal rate (21%), a municipal surcharge (1.5%) and a State surcharge (that can reach 7%). Thus, the corporate tax marginal rate is **29.5%** for 2015; nevertheless it is expected to have a decrease to **27.5%** in 2016 and for **25.5%** in 2017. Since then, this rate is expected to remain steady during the forecast period.

Since there are no outstanding corporate bonds of the company, it is necessary to take an alternative approach. We suggest looking for the average interest rate supported by the company in the previous years and compare to six months Euribor at the first of January of each year. This maturity was chosen, since a relevant part of company´s debt is indexed to this rate. The Table XIV presents a diminishing trend in the cost of the money in the last two exercises, reflecting a lower interest rate environment.

Table XV – Historical Cost of Debt (%) and Historical EURIBOR (%)

Historical Cost of Debt and EURIBOR at 6M									
Rates	2007	2008	2009	2010	2011	2012	2013	2014	Forecast
Cost of debt	5.00%	5.31%	2.94%	2.34%	4.75%	5.09%	4.40%	3.73%	2.50%
6M EURIBOR	3.86%	4.70%	2.95%	1.00%	1.22%	1.61%	0.32%	0.39%	0.17%

Source: Annual Reports and European Central Bank

Despite those historical values, it will be assumed a lower cost of debt for the forecasted period, since: the signed agreement of a line of credit provided by the European Investment Bank at lower rate than any other existing available credit lines and by the continuation of the diminishing of EURIBOR rates – 0.169% – as first January of 2015. Thus, the pre-tax cost of debt applied in our model is about **2.5%.** Despite appears to be an optimistic value; actually it is a realistic one, since on the first half of 2015 the company supported a **2.25%** rate (Consolidated Accounts First Half 2015)

The market risk premium estimate of Corticeira Amorim is based on the weighted equity risk premiums by sales per region. This approach was made due to the high internationalization of the company, thus sales per region are assumed to be a reliable proxy to the company markets exposure. This approach takes into consideration the market risk premiums per region provided by Damodaran on his academic website Fig. X. With both things combined, the estimation of the risk premium is about **7.18%.** Multiplying that value by the beta and adding the risk free rate, the estimated cost of equity is **6.49%.**

Although the literature argues that the weight of debt and equity should be calculated with the market values, in this analysis the book value of debt is applied since there is no available market price to the company´s debt. Nevertheless, it is important to refer that the company states an expected autonomy ratio (Equity/Assets), solely based on book values, between 40% and 50% for the upcoming years. Thus, the 50% will be accounted as the expected proportion of equity on the capital, since by the end of 2014, the financial autonomy ratio was 51.8%.

5.6. Terminal Value

After 2020, it is assumed that consolidated revenues will grow at 2.7%, as a result of a weighted average of the perpetual growths in sales of each BU. The perpetual FCFF growth is estimated by subtracting one percentage point to the perpetual growth of sales of each BU, in order to reflect a growth in costs. With the perpetual growth of cash flows for each BU, we computed the equivalent cash flow growth for the whole company, only assuming a perpetual growth for Holding´s cash flows. With this approach a 1.6% perpetual growth was estimated. This growth reflects the IMF estimates for GDP and inflation (appendix 9) in the main markets where the company is present.

There was to take more assumptions and make more forecasts regarding the following items: Cash and interest bearing loans, dividends, net financial costs and minor interests. The estimations are present in the appendixes 12, 13, 14 and 15, respectively.

5.11. Value of each BU

Tables XV, XVI, XVII, XVIII, XIX present the estimations for the upcoming years for each BU, the estimations for Holding are presented in the appendix 16.

Table XVI – Raw Materials Estimated Value (Thousands Euro)

Raw Materials	2014	2015	2016	2017	2018	2019	2020	
Revenues	5,253	5,358	5,465	5,575	5,686	5,800	5,916	
EBITDA	17,492	18,808	19,542	20,431	21,117	21,744	22,335	
EBIT	14,614	15,867	16,568	17,424	18,077	18,669	19,226	
TAXES	4,589	4,681	4,556	4,443	4,610	4,761	4,903	
Dep. And Amor.	2,878	2,941	2,974	3,007	3,041	3,075	3,109	
Operat. CF	12,903	14,127	14,986	15,988	16,508	16,983	17,432	
∆NWC	19	4,691	2,991	3,624	2,797	2,552	2,410	
Capex	2,816	4,338	3,099	3,134	3,169	3,204	3,240	
FCFF	10,069	5,098	8,895	9,230	10,542	11,227	11,782	
WACC	5.54%							
PV FCFF		-	8,427.99	8,286.44	8,967.14	9,047.91	8,996.59	
TV								303,610.30
PV of TV								219,657.80
BU VALUE	263,383.86							

Source: Annual Reports and own calculations

Table XVII – Cork Stoppers Estimated Value (Thousands Euro)

Cork Stoppers	2014	2015	2016	2017	2018	2019	2020	
Revenues	353,306	385,063	406,725	429,606	446,790	462,427	476,300	
EBITDA	46,830	50,313	52,277	54,655	56,491	58,166	59,749	
EBIT	35,725	38,987	40,824	43,075	44,782	46,326	47,776	
TAXES	11,218	11,501	11,227	10,984	11,419	11,813	12,183	
Dep. And Amor.	11,105	11,326	11,452	11,580	11,710	11,840	11,973	
Operat. CF	35,612	38,812	41,050	43,671	45,072	46,353	47,566	
∆NWC	20	5,107	3,256	3,945	3,044	2,778	2,624	
Capex	12,917	20,545	14,678	14,841	15,007	15,175	15,344	
FCFF	22,675	13,160	23,116	24,885	27,020	28,401	29,598	
WACC	5.54%							
PV FCFF		-	21,902	22,340	22,983	22,888	22,600	
TV								762,700
PV of TV								551,803
BU VALUE	664,516							

Source: Annual Reports and own calculations

Table XVIII - Floor and Wall Coverage Estimated Value (Thousands Euro)

F&W coverage	2014	2015	2016	2017	2018	2019	2020	
Revenues	113,345	110,839	108,389	109,473	110,567	111,673	113,348	
EBITDA	15,520	13,206	13,722	14,346	14,828	15,268	15,683	
EBIT	10,861	7,364	7,814	8,372	8,788	9,160	9,507	
TAXES	3,410	2,172	2,149	2,135	2,241	2,336	2,424	
Dep. And Amor.	4,659	5,843	5,908	5,974	6,041	6,108	6,176	
Operat. CF	12,110	11,034	11,573	12,211	12,587	12,932	13,259	
∆NWC	10	2,527	1,611	1,952	1,506	1,375	1,298	
Capex	1,409	4,540	3,244	3,280	3,317	3,354	3,391	
FCFF	10,691	3,967	6,718	6,979	7,764	8,204	8,570	
WACC	5.54%							
PV FCFF		-	6,365	6,266	6,604	6,612	6,544	
TV								220,827
PV of TV								159,765
BU VALUE	192,156							

Source: Annual Reports and own calculations

Table XIX – Composite Cork Estimated Value (Thousands Euro)

Composite cork	2014	2015	2016	2017	2018	2019	2020	
Revenues	79,431	87,374	91,306	95,415	98,754	101,717	104,768	
EBITDA	7,748	8,447	8,776	9,176	9,484	9,765	10,031	
EBIT	4,772	4,748	5,036	5,394	5,660	5,898	6,121	
TAXES	1,498	1,401	1,385	1,375	1,443	1,504	1,561	
Dep. And Amor.	2,976	3,699	3,740	3,782	3,824	3,867	3,910	
Operat. CF	6,250	7,046	7,391	7,800	8,041	8,261	8,470	
ΔNWC	10	2,439	1,555	1,884	1,454	1,327	1,253	
Capex	3,334	7,262	5,188	5,246	5,305	5,364	5,424	
FCFF	2,906	- 2,655	648	670	1,282	1,570	1,793	
WACC	5.54%							
PV FCFF		-	614	602	1,090	1,266	1,369	
TV								46,204
PV of TV								33,428
BU VALUE	38,369							

Source: Annual Reports and own calculations

Table XX - Insulation Cork Estimated Value (Thousands Euro)

Insulation Cork	2014	2015	2016	2017	2018	2019	2020	
Revenues	8,138	8,382	8,466	8,551	8,636	8,722	8,810	
EBITDA	1,653	2,765	2,873	3,004	3,105	3,197	3,284	
EBIT	1,040	2,071	2,171	2,294	2,387	2,471	2,550	
TAXES	327	611	597	585	609	630	650	
Dep. And Amor.	613	694	702	710	718	726	734	
Operat. CF	1,326	2,154	2,276	2,419	2,496	2,567	2,634	
ΔNWC	3	641	409	495	382	349	329	
Capex	562	1,042	745	753	761	770	779	
FCFF	762	471	1,122	1,170	1,352	1,448	1,525	
WACC	5.54%							
PV FCFF		-	1,063	1,051	1,150	1,167	1,165	
TV								39,309
PV of TV								28,440
BU VALUE	34,036							

Source: Annual Reports and own calculations

5.12. Company Valuation

After sum the values of each BU, there is a need to take some adjustments. On Table

XX, we start by subtracting the value of the adjusted net debt forecasted as end of

2015. This item includes the confirmed credit lines. Afterwards, there was also

subtracted to the company´s value the value of provisions, minorities, and derivatives.

On other hand, the financial investments are added to equity value. By the end, it is

applied a small cap discount of 20%, since the company has a very low free float

(under 100 million Euros). This discount it is a very common practice though

investment banking equity researches as applied BPI Equity Research on Corticeira Amorim SGPS. With this methodology, the estimated intrinsic value per share is 5.59€, which confers a 18% potential growth to the stock, when compared to its quoted price on 31/08/2015. Once again, it is crucial to say that this price may not be reach, since this exercise was based in economic and sector assumptions that may not occur.

Table XXI – Equity Valuation

Signal	ITEMS		Method
=	Sum of the parts VAL	1,132,749	
(-)	Adjusted Net Debt YE15	134,752	incl. Other MLT Creditors and Confirming credit lines
(-)	Provisions	27,951	forecast for 2015
(-)	Minorities	13,784	forecast for 2015
(-)	Derivatives	41,178	book value by the end of 2014
(+)	Financial Investments	13,734	forecast for 2015
=	Equity Value	928,818	
/	Outstanding Shares	133,000	
=	Fair value YE14 €	6.98 €	
*	Small Cap discount	20%	
=	Price Target	5.59 €	

Source: Annual Reports and own calculations

5.11. Relative Valuation

In order to give another perspective of analysis, it is important to apply the relative valuation. For the purpose, it was picked two multiples: enterprise value to EBITA (EV/EBITA) and price-to-earnings (P/E). The main difference between the two multiples lies on the fact that (P/E) ratio focuses on share price, rather than enterprise value. Although the fame about the P/E ratio, this multiple is affected by capital structure and net income. Regarding the peer group of CA, it is exclusively composed on by listed companies in the cork business, since the company´s business is all about cork composed products. Applying this filter we only get OENEO, which is a French-based company and it is the world´s second largest cork based-producer (after CA). Having only one company in the peer group it may skew the conclusion of the multiples, but

we believe that is more important to restrict the peer group to exclusively public traded cork-based companies.

The price for CA shares was about 6.07€ (table XXI). Notwithstanding, the estimated price per share computed with DCF was about 6.70€. A lower estimated price through the relative valuation may be explained by lack of liquidity of both companies´ shares. Thus, it´s natural, that investors, especially, institutional ones, are not willing to invest in papers with such lack of liquidity, due to more volatile prices.

Table XXII – Relative Valuation

Companies	EV/EBITDA (2015)	PER (2015)
Cort. Amorim	7.44	14.8
OENEO	9.01	19.29
Cort. Amorim EBITDA 2015	89652 k€	
Cort. Amorim EPS 2015		0.31 €
Cort. Amorim Price target	6.07 €	6.07 €

Source: Reuters and own calculations

5.12. Sensitivity Analysis

As said before, the DCF is constructed under the assumptions, which may not capture the reality. Thus, a sensitivity analysis seems to show how the value of a company changes with a change in one or more assumed values. For this case, it is constructed a combined sensitivity analysis to the WACC and to the growth in perpetuity (g). As depicted on the table XXIII, the WACC appears to have a significant impact on the company´s value, with opposition to g. By way of illustration, a hypothetical rise of a half percentage point in the cost of capital would represent a value per share of 4.78€.

Table XXIV - Sensitivity Analysis

		G						
		0.10%	0.60%	1.10%	1.60%	2.10%	2.60%	3.10%
	3.54%	13.03 €	13.04 €	13.06 €	13.07 €	13.09 €	13.10 €	13.11 €
	4.04%	10.00 €	10.01 €	10.02 €	10.03 €	10.05 €	10.06 €	10.07 €
	4.54%	8.01 €	8.02 €	8.03 €	8.04 €	8.05 €	8.06 €	8.07 €
	5.04%	6.61 €	6.62 €	6.62 €	6.63 €	6.64 €	6.65 €	6.66 €
WACC	5.54%	5.57 €	5.57 €	5.58 €	5.59 €	5.59 €	5.60 €	5.61 €
	6.04%	4.76 €	4.77 €	4.77 €	4.78 €	4.79 €	4.79 €	4.80 €
	6.54%	4.12 €	4.13 €	4.13 €	4.14 €	4.14 €	4.15 €	4.15 €
	7.04%	3.61 €	3.61 €	3.61 €	3.62 €	3.62 €	3.63 €	3.63 €
	7.54%	3.18 €	3.18 €	3.18 €	3.19 €	3.19 €	3.20 €	3.20 €
	8.04%	2.81 €	2.82 €	2.82 €	2.82 €	2.83 €	2.83 €	2.83 €
	8.54%	2.51 €	2.51 €	2.51 €	2.51 €	2.52 €	2.52 €	2.52 €
	9.04%	2.24 €	2.24 €	2.24 €	2.25 €	2.25 €	2.25 €	2.26 €

Source: Own calculations

6. Conclusions

In the last years, Corticeira Amorim has shown an ability to consistently improve its figures by improving gross margins due to more efficient production process and by adopting a high level of internationalization and diversification of the products supplied achieved through an important engagement with R&D actives. Thus, with the continuation of this strategic actuation, it is expected that the company will continue to prosper in the upcoming years.

Nevertheless, there are also threats to the business, especially in what concerns the Floor and Wall Coverage BU, since the embargos applied to Russia and the political instability in the other countries in Eastern Europe have been harmful to the sales of this BU. The Cork Stoppers BU also faces a major problem: the lower cost of alternative stoppers. Besides being true that this threat was stronger and more visible in 2008 and 2009 it still persists. The company has successfully introduced innovative stoppers that enhance the customers' satisfaction and help to mitigate that risk.

The estimated price by FCFF valuation is 5.59€ per share, which concedes a potential growth of 18%, when compared to its quoted price in 31/08/2015 of 4.75€. Nevertheless, the sensitivity analysis highlights the importance of the WACC and its impacts on the output. On the other hand, the relative valuation estimated price is about 6.07€. With all that considered, it is given a buy recommendation to the Corticeira Amorim shares.

6. Conclusions

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Corticeira Amorim Accounts and Facts:

2007-2014 Corticeira Amorim Annual Reports and Accounts

Corticeira Amorim Website - http://www.amorim.com/

Appendix

Appendix 1 - Cork Oak Forest area by country

Country	Area (hectares)*	Percentage
Portugal	736,775	34
Spain	574,248	27
Morocco	383,120	18
Algeria	230,000	11
Tunisia	85,771	4
France	65,228	3
Italy	64,800	3
TOTAL	2,139,942	100

Source: Cork Sector in Numbers 2014

Appendix 2 - Cork Oak Forest area in Portugal by region in %
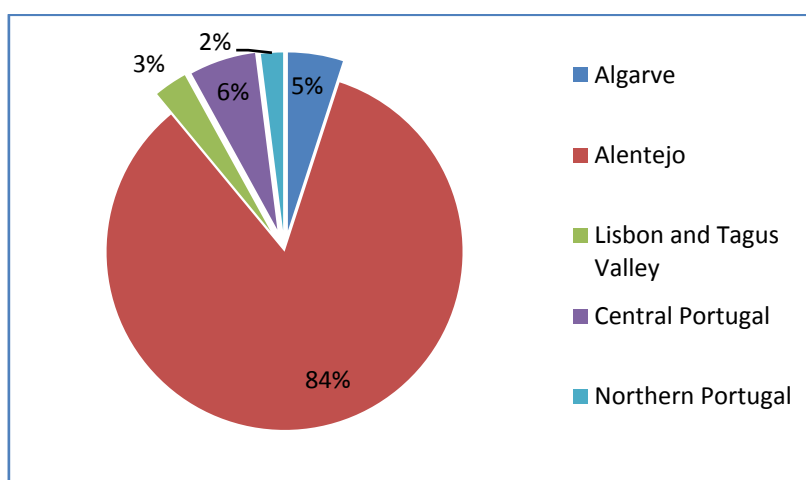
Source: Cork Sector in Numbers 2014

Appendix 3 – SWOT Analysis

Strengths:	Weaknesses:	Opportunities	Threats
• Worldwide Market Leader and global presence • Product differentiation • Research, development and innovation • Total usage of raw materials	• High cost of the raw materials and final products • Lack of recognition of the product's potential	• Cork´s versatility can allow exploration of new products • Exploration of new markets • Possible acquisitons of small companies engaged in the wood	• Economic slowdown in its main markets • New competitors • Lower cost of alternative products • the relevance of stoppers to its business

Source: APCOR and Annual Reports

Appendix 4 - CA Business Units
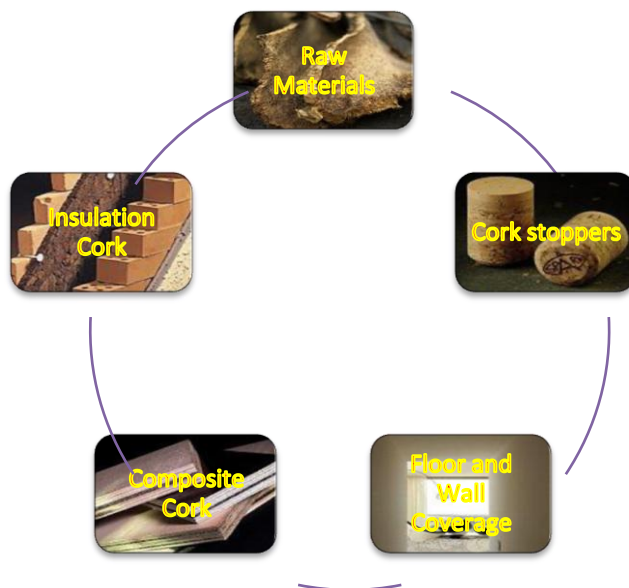
Source: Annual Reports

Appendix 5 – Worldwide presence

248 *key distribution players*
83 *companies*
30 *industrial units*
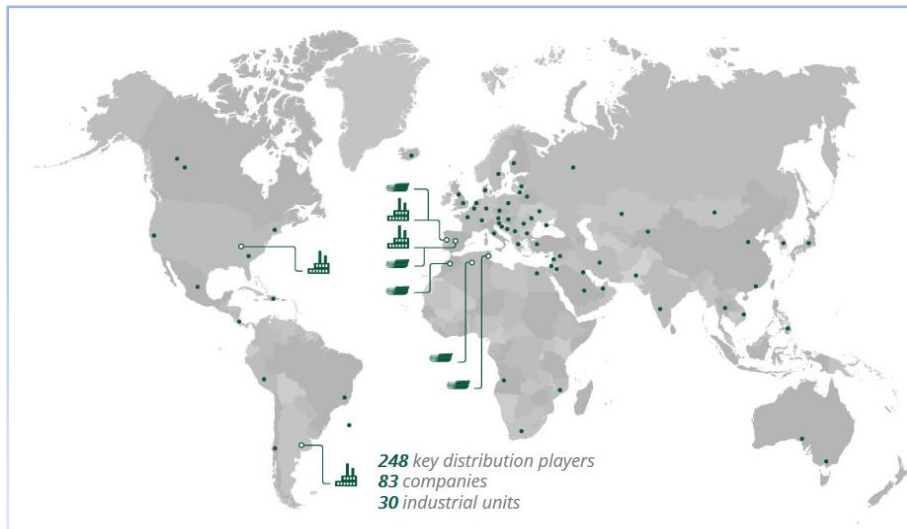
Appendix 6 - Shareholder Structure[1]

- Amorim family holdings
- Treasury Stocks
- Free Float
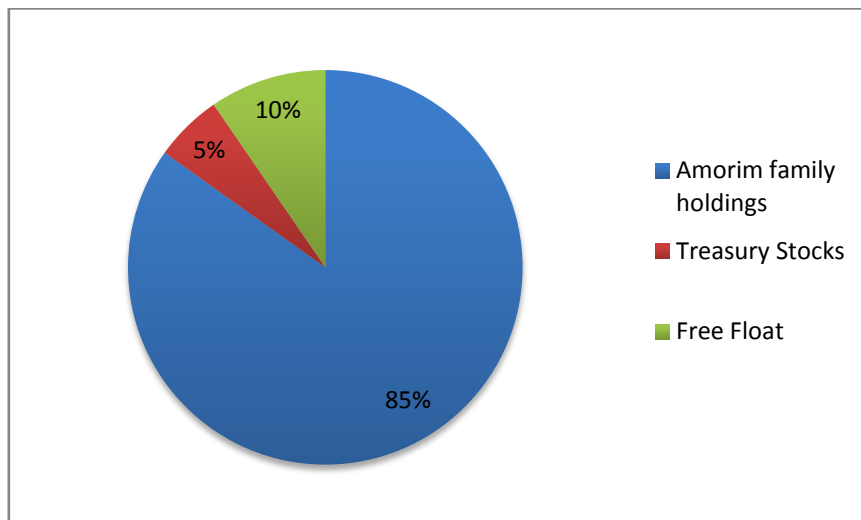
Source: Relatório do Governo Societário (2014)

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[1] The Company sold all treasury stocks to institutional investors on 17/09/2015 in an Accelerated Bookbuilding. This operation realized a 32,926,715.90€ with a price of 4.45€ per share. For more info, please consult the press release on: http://www.amorim.pt/en/for-investors/market-information/

Appendix 7 - Macroeconomic Framework Real GDP

Gross domestic product, constant prices (Percent change)											
Country	2008	2009	2010	2011	2012	2013	2014	2015f	2016f	2017f	2018f	2019f
USA	-0.3%	-2.8%	2.5%	1.6%	2.3%	2.2%	2.4%	3.1%	3.1%	2.7%	2.4%	2.0%
France	0.2%	-2.9%	2.0%	2.1%	0.3%	0.3%	0.4%	1.2%	1.5%	1.7%	1.8%	1.9%
Germany	0.8%	-5.6%	3.9%	3.7%	0.6%	0.2%	1.6%	1.6%	1.7%	1.5%	1.3%	1.3%
Italy	-1.1%	-5.5%	1.7%	0.6%	-2.8%	-1.7%	-0.4%	0.5%	1.1%	1.1%	1.1%	1.1%
Spain	1.1%	-3.6%	0.0%	-0.6%	-2.1%	-1.2%	1.4%	2.5%	2.0%	1.8%	1.7%	1.7%
Portugal	0.2%	-3.0%	1.9%	-1.8%	-4.0%	-1.6%	0.9%	1.6%	1.5%	1.4%	1.3%	1.2%
China	9.6%	9.2%	10.4%	9.3%	7.8%	7.8%	7.4%	6.8%	6.3%	6.0%	6.1%	6.3%
ASEAN-5	5.5%	2.2%	6.9%	4.6%	6.1%	5.2%	4.6%	5.2%	5.3%	5.4%	5.5%	5.5%

Source: IMF – World Economic Outlook

Inflation, average consumer prices (Percent change)											
PAIS	2008	2009	2010	2011	2012	2013	2014	2015f	2016f	2017f	2018f	2019f
USA	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%	1.5%	2.4%	2.5%	2.3%
France	3.2%	0.1%	1.7%	2.3%	2.2%	1.0%	0.6%	0.1%	0.8%	1.1%	1.2%	1.5%
Germany	2.7%	0.2%	1.2%	2.5%	2.1%	1.6%	0.8%	0.2%	1.3%	1.5%	1.6%	1.8%
Italy	3.5%	0.8%	1.6%	2.9%	3.3%	1.3%	0.2%	0.0%	0.8%	1.0%	1.1%	1.2%
Spain	4.1%	-0.2%	2.0%	3.1%	2.4%	1.5%	-0.2%	-0.7%	0.7%	0.8%	1.1%	1.3%
Portugal	2.7%	-0.9%	1.4%	3.6%	2.8%	0.4%	-0.2%	0.6%	1.3%	1.5%	1.6%	1.7%
China	5.9%	-0.7%	3.3%	5.4%	2.6%	2.6%	2.0%	1.2%	1.5%	2.0%	2.5%	3.0%
ASEAN-5	9.2%	3.3%	4.5%	5.8%	3.8%	4.7%	4.7%	4.1%	4.2%	3.9%	3.9%	3.9%

Source: IMF – World Economic Outlook

Appendix 8 – Weight of Trade Sales on Total Sales

| Trade Sales/Total Sales							
BU	2008	2009	2010	2011	2012	2013	2014
Raw materials	6%	7%	4%	3%	6%	4%	4%
Cork Stoppers	98%	99%	98%	98%	98%	99%	99%
Floor and Wall Coverage	98%	99%	97%	97%	97%	97%	97%
Composite Cork	82%	83%	84%	87%	86%	84%	94%
Insulation Cork	91%	92%	94%	93%	92%	89%	81%
Holding	8%	0%	46%	27%	23%	2%	13%
Total	80%	81%	81%	81%	79%	80%	79%

Source: Own calculations

Appendix 9 - VINEXPO forecasts to 2018:

Worldwide consumption of wine and sparkling wine has grown about 2.7% between 2009 and 2013. By 2013, world consumption was equivalent to 31712 billion bottles of 750ml. By the end of 2018, the worldwide consumption will reach 32784 billion bottles, implying an annual growth rate of roughly 1% between 2015 and 2018.

The United States became in 2014 the top consumer of still wines with a total consumption of 4075 billion bottles (up 11.6 per cent versus 2009). By the end of 2018, the level of consumption is previewed to rise to 4534 million bottles in this market.

Appendix 10 – Total Construction Spending Long-Term Growth by Region (%)

The deceleration in global demand for construction materials, including floor and wall coverings and insulation materials, was explained by the slowdown of activity in the construction sector in terms of new building and renovation.
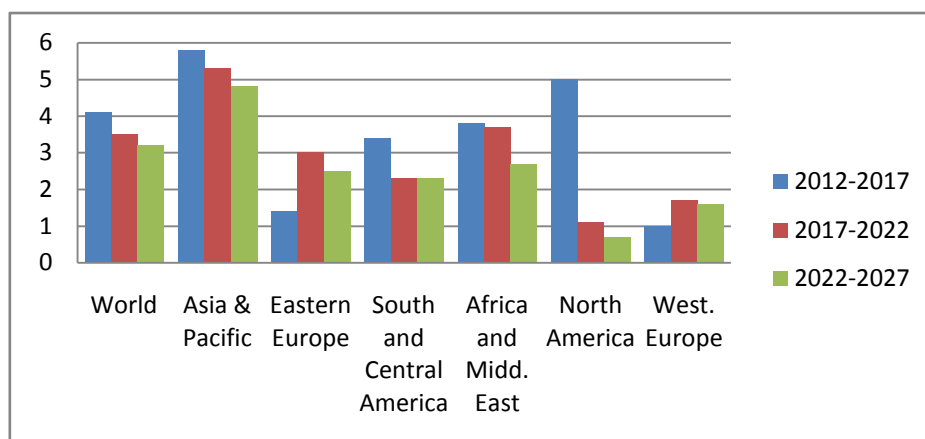
Source: IHS Economics | Global Construction Outlook

Appendix 11 – Cash and Interest Bearing Loans

Koller et al. (2010) suggest using these two items as the plug and the play. First assume that both items remain constant from the last exercise. For the forecasting period, if the assets are greater than equity and liabilities, add that difference to interest bearing loans, otherwise add it to cash. In our approach, we kept constant the current interest bearing loans. For 2015, it is forecasted an impressive rise in cash, due to a recent sell

of treasury stocks of almost 33 million euros. It is assumed that the company will keep

this cash in its balance sheet.

Cash and Interst bearing loans							
ITEMS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Cash and Cash Eq.	4,596	7,740	33,312	21,681	39,015	7,788	6,036
Non-current interst bearing loans	118,266	93,472	14,239	62,464	52,363	33,623	26,225
Current interst bearing loans	109,292	52,881	121,496	76,641	108,231	78,612	67,369

Source: Annual Reports and own calculations

Cash and Interst bearing loans						
ITEMS	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Cash and Cash Eq.	38,966	38,966	38,966	39,596	41,199	43,491
Non-current interst bearing loans	26,225	26,225	26,225	26,225	26,225	26,225
Current interst bearing loans	78,583	78,757	79,312	79,312	79,312	79,312

Source: Annual Reports and own calculations

Appendix 12 - Historical and Projected Dividends (Thousands Euro)

The dividends forecast for the upcoming years reflect an increasing payout ratio until

2017, in which it will be stabilized at 80% (in Appendix 13). This assumption reflects the

fact that the company had slightly passed the 50% of financial autonomy ratio, which is

upper bound that the board considers being suitable.

Dividends and Payout Ratio							
ITEMS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Dividends (atr. shareholders)	7,825	-	-	12,621	20,162	20,096	23,864
Net income	6,153	5,111	20,535	25,274	31,055	30,339	35,756
Payout Ratio	127%	0%	0%	50%	65%	66%	67%

Source: Annual Reports and own calculations

Dividends and Payout Ratio						
ITEMS	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Dividends (atr. shareholders)	27,820	34,414	37,740	39,514	41,123	42,633
Net income	39,743	43,018	47,175	49,392	51,404	53,291
Payout Ratio	1	1	1	1	1	1

Source: Annual Reports and own calculations

Appendix 13 – Net Financials Costs and Cost of Debt (%)

The net financial costs are mainly impacted by the cost of the debt. Thus, the

forecasted values for this item were calculated by: the estimated future cost of debt

(2.5%) added by the historical difference between the rate of cost of debt on debt outstanding and the rate of net financial cost on debt outstanding (0.14%). This difference is due to interest earned and to stamp tax spent related to this operations.

Net Financial Costs								
ITEMS	2008	2009	2010	2011	2012	2013	2014	Forecast Driver
Net financial costs rate	5.62%	2.50%	2.85%	4.06%	4.42%	4.85%	5.22%	
Cost of debt rate	5.31%	2.94%	2.34%	4.75%	5.09%	4.40%	3.73%	2.50%
Δ	0.31%	-0.44%	0.51%	-0.69%	-0.67%	0.45%	1.49%	0.14%

Source: Annual Reports

Appendix 14 - Forecasted Minority Interests

The net financial costs are mainly impacted by the cost of the debt. Thus, the forecasted values for this item were calculated by: the estimated future cost of debt (2.5%) added by the historical difference between the rate of cost of debt on debt outstanding and the rate of net financial cost on debt outstanding (0.14%). This difference is due to interest earned and to stamp tax spent related to this operations.

Min. Interests						
ITEMS	2015	2016	2017	2018	2019	2020
Begin of year Minority int.	13,393	13,784	14,175	14,566	14,957	15,348
Results	824	824	824	824	824	824
Dividend	- 433	- 433	- 433	- 433	- 433	- 433
End of Year Minority int.	13,784	14,175	14,566	14,957	15,348	15,739

Source: Annual Reports and own calculations

Appendix 15 - Holding Estimated Value (Thousands Euro)

Holding	2014	2015	2016	2017	2018	2019	2020	
Revenues	866	866	866	866	866	866	866	
EBITDA	- 2,520	- 3,887	- 4,038	- 4,222	- 4,364	- 4,493	- 4,616	
EBIT	- 2,625	- 3,952	- 4,105	- 4,289	- 4,432	- 4,562	- 4,685	
TAXES	- 824	- 1,166	- 1,129	- 1,094	- 1,130	- 1,163	- 1,195	
Dep. And Amor.	105	65	66	67	68	68	69	
Operat. CF	- 1,696	- 2,721	- 2,910	- 3,129	- 3,234	- 3,330	- 3,421	
ΔNWC	0	2	2	2	1	1	1	
Capex	182	111	79	80	81	82	83	
FCFF	- 1,878	- 2,834	- 2,990	- 3,210	- 3,316	- 3,413	- 3,505	
WACC	5.54%							
PV FCFF		-	- 2,833	- 2,882	- 2,821	- 2,751	- 2,676	
TV								- 63,235
PV of TV								- 45,749
BU VALUE	- 59,712							

Source: Annual Reports and own calculations