



The Portucel Soporcel Group – The Goodwill treatment under the International Standards

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Abstract

The concept of Fair Value is increasingly relevant in the corporate world. For several years that listed companies in Europe and in the U.S. take this concept into consideration when preparing their financial statements, namely when measuring some assets and liabilities such as Financial Assets and Financial Liabilities, Goodwill and Biological Assets. In order to better understand how companies actually fulfill the requirements established by International Standards, this dissertation focuses on the Portucel Soporcel Group and on the accounting treatment of Goodwill, addressing specifically the way the company translates into its financial statements the concept of Fair Value, as well as the methodology used to estimate Goodwill and the corresponding recoverable amount. The Group follows International Standards in the preparation of financial statements and in the treatment of Goodwill, with data being obtained from reliable and renowned sources such as Reuters and being treated in combination with internally generated information, properly validated and periodically revised.

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1. Introduction

This dissertation centers on understanding the consequences of the adoption of the Fair Value accounting in the financial statements annually presented by companies. In order to do that, after a thorough review of the existing literature, the discussion is applied to Portugal – specifically, to the accounting practices of the Portucel Soporcel Group in the treatment of Goodwill. The first part of this essay consists of the Literature Review, that is, a theoretical analysis of the Fair Value concept and of the Goodwill caption, which will be analyzed in higher detail. Additionally, I explain the origin of the concept and its development. The ultimate aim of this exercise is to show how companies do implement these accounting measurements. I also point out some advantages regarding the use of this accounting method instead of its historically precedent alternative, the Historical Cost method.

In the second chapter, I present the Portucel Soporcel Group and conduct an analysis of the industrial sector it operates in. This is extremely important for the way the concept of Fair Value is implemented. I further explain the transition, in 2005, from the National Standards to International Standards, and its impact on the financial statements of the company. Finally, I study the way Portucel Soporcel Group effectively applies the concept of Fair Value to Goodwill.

In the conclusion, I make a brief summary of the theoretical explanation presented and apply it to the standard practices I have observed at Portucel Soporcel Group. This company resorts to this concept in a way mostly correspondent to International Standards. Accounting estimates are based on reliable entities such as Reuters and complemented by sound internal estimates, periodically revised. The combination of theory and practice sheds light on the importance of the concept of Fair Value and the difficulties it implies.

2. Literature Review

2.1 Fair Value: concept

In the early twentieth century, the concept of Fair Value was seen as part of financial accounting. Companies in the United States commonly revalued assets by writing them up or down, in order to illustrate their real value (Fabricant, 1938, *in* Choy, 2006).

Nevertheless, after the Great Depression of 1929, President Franklin Roosevelt decided to abolish this practice, since he believed that the Fair Value accounting had been one of the main causes behind the bankruptcy of American companies (Stein & Wesbury, 2004, *in* Cascini & DeFavero, 2011). Therefore, the following years witnessed companies shifting from the Fair Value accounting method to its Historical Cost counterpart, based on reliable records (Walker, 1992, *in* Choy, 2006).

Over the last few decades, accountants, academics and researchers kept questioning what would be the best strategy to use in corporate financial statements, having attempted to assess the advantages and disadvantages of using the Fair Value rather than the Historical Cost approach. A main concern remains the possibility that two distinct companies which account their assets at their Fair Value could represent identical assets with different values, relying on conflicting judgments and assumptions (King, 2009).

Historical Cost supporters argue that the revaluation depends on the manager's particular judgment, which could mislead investors (Daniels, 1934; Paton & Lettleton, 1940 *in* Choy, 2006). In addition, Historical Cost is based on observable documented values, thus reinforcing the credibility of corporate accounting (Ijiri, 1975, 1981 *in* Choy, 2006). On the other hand, Fair Value proponents defend that the main goal of financial statements is to provide investors with a real picture of the company. In their viewpoint, this is only possible if the assets and liabilities are accounted for at their current value. Sapra affirms that the Fair Value accounting is also a more transparent criterion (Sapra, No 09-35).

Also according to Sapra, there are three main ways of achieving transparency; the first one being increasing the number of reports published throughout the year. This methodology allows the homogenization of perceptions among all the interested parties in the market and leads to price efficiency. Secondly, companies should make an effort

to obtain more precise descriptions of their operations in the published financial statements. In reality, the only asset that a company can measure precisely is its cash balance. The value of the remaining assets is necessarily calculated through judgments and assumptions that cannot capture all the information available in the market. Finally, the third measure to promote transparency is by implementing the Fair Value accounting, according to which companies have to value their assets and liabilities at the market price or through the best possible estimate of their actual value.

The Financial Accounting Standards Board (FASB) states that the main purpose of financial statements is to provide relevance and reliability (FASB No. 2 1980) and that for the information to be reliable it has to be “verifiable, neutral and to have representational faithfulness”.

Despite of all the debate about which measurement should be adopted, companies do not live in a perfect market where there is shared information and participants have a clear insight about the market environment. Therefore it is extremely important to have an accounting measurement which reduces the asymmetry of information between different parties¹ (Sapra, No. 09-35).

According to the Securities and Exchange Commission (SEC), it is important to have a norm to use the Fair Value in companies because:

1. “The economy has become dynamic”, so it is essential to have a valuation that takes into account all variations and provide a reliable value. Stakeholders want to know what the real value of the asset is,
2. There were many companies in the U.S that were using wrong estimates providing unreliable values of their assets and liabilities.

For several years, the International Accounting Board Standards (IASB) and the FASB had as primary concern the achievement of a consensus that resulted in the drafting of norms that allow greater transparency in the financial information submitted by companies. Standard SFAS 157 was created in order to establish “consistency and comparability” between companies in the market. The two accounting boards considered that the use of Historical Cost is “out-of-date” and “*lacks transparency*” and that its replacement by the Fair Value measurement is crucial (Leone, 2008).

¹ Especially when companies use market values

2.2 Fair Value: definition

The International Financial Reporting Standard (IFRS) defines Fair Value as “the amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties, in an arm’s length transaction.”

According to the Exposure Draft of May 2009 (SFAS 157), on the other hand, Fair Value is *“the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price)”*.

In the SFAS 157 definition, there is a specific reference to an exit price and to a selling price, whilst the IFRS does not explicitly mention an exit price. Another difference between these two definitions revolves around how they determine market participants. In the former, it is directly outlined, while the latter participants are described as “knowledgeable willing parties, in an arm’s length transaction.”

The following analysis is based on the definition of Fair Value contained in the Exposure Draft dated May 2009.

In order to compute the Fair Value of an asset or liability, this document states that a company should consider the specific characteristics of what is being analyzed. These can be based on the “unit of account” on the Group of assets or liabilities. The focus here is on assets and liabilities because they are the primary subject of accounting measurements (SFAS 157).

The same norm contends additionally that the transaction market for a specific asset can vary from company to company, depending on which market is the most advantageous (paragraph 9).

The orderly transaction notion is also an important element in this context, explained as “an orderly transaction (...) that assumes exposure to the market for a period before the measurement date”. The reason for this is that the value of a specific asset or liability should not be manipulated, in the same way the transaction should not be “forced” (paragraph 7).

Market participants are defined in paragraph 10, which says that they should be independent from the company and possess some knowledge about the asset or liability, besides being able to make an agreement in an environment of free deliberation.

Furthermore, the selling price should be directly observable or, in the absence of that possibility, derive from the best estimate calculated by the company. The price should include the transaction costs that are valid in other relevant IFRSs as well (paragraphs 15-16).

2.2.1 Fair Value: Application to assets

“An asset is a resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity” (IAS 38).

According to the Exposure Draft of May 2009, the Fair Value measurement considers that the economic benefit of an asset results from the “highest and best use” by the market participant, assuming that this use is “physically possible, legally permissible and financially feasible at the measurement date” (paragraph 17).

The *highest and best use* of an asset is determined by considering that an independent market participant and a company only need to conduct further inquiries regarding other uses of the asset if there is evidence that the current one is not the *highest and best use* (paragraph 18).

Under this assumption there are two possible valuation premises for accounting an asset: by its *value in-use* or by its *value in-exchange*.

The value *in-use* premise assumes the perspective of the buyer. The purchase price for a specific asset is what the buyer understands that he or she will gain from its production capacity (King, 2006).

The value *in-exchange* reasoning proposes that the Fair Value of a specific asset is “the price that would be received in a current transaction to sell the asset to market participants who would use the asset on a stand-alone basis” (paragraph 22).

Both premises take for granted that the asset is sold individually, and not as part of a group of assets.

In the specific case of financial assets, only the value *in-exchange* premise should be used, given that it reflects any benefits that “would derive from holding that asset in a diversified portfolio” (paragraph 24).

King (2006) writes that the valuation that should primarily be taken into consideration is the value *in-use* premise since it “reflects the actual economics of the specific transaction”. However, the same author points out that for the FASB it is preferable to value assets conforming to the *in-exchange* premise, because this technique places more emphasis on market participants and on market transactions.

The choice of one premise over the other may have a significant impact in the reported income. For example, if a company accounts for a fixed asset under the *in-use* premise, it will increase the amount of depreciations and, consequently, decrease the earnings reported for that year (King, 2006).

2.2.2 Fair Value: Application to Liabilities

A Liability is defined as “an obligation of an entity arising from past transactions or events, the settlement of which may result in the transfer or use of assets, provision of services or other yielding of economic benefits in the future” (IASB).

The Exposure Draft indicates that when measuring a liability the company should assume that it could be or have been “transferred to the market participant at the measurement date”.

The same document states that, if there is no active market for the liability, the value that a company should recognize must be the same as the value of the corresponding asset. When there is an active market for that asset, the price of the asset represents the Fair Value of the liability. However, in the case where the observable price includes “third-party credit enhancement”, companies must adjust that value (paragraph 27).

The Fair Value of a liability reflects the non-performance risk. This risk may change throughout the useful life of the liability and represents the degree of probability of the company not fulfilling the obligation. This risk includes credit and other factors that may influence the non-fulfillment of a certain obligation.

2.3 Fair Value: Valuation Techniques

There are three main ways of reaching an asset or liability's Fair Value; a company should use the technique that best suits the circumstances that occur at a given period. It should consider the data availability, the observable and unobservable inputs as well as periodically revise the techniques used in order to understand if its approach remains the most appropriate one (Exposure Draft of May 2009).

Observable inputs are “developed on the basis of available market data and reflect the assumptions that the market participants would use when pricing the asset or liability” (FASB 157). Unobservable inputs are “inputs for which market data are not available and that are developed on the basis of the best information available about the assumptions the market participants would use when pricing the asset or liability” (FASB 157)

In the Appendix B of the Exposure Draft of May 2009 prior to a company's decision regarding the best technique to apply in the case of a specific asset, the responsible executives or Board members must choose the valuation premise according to the “*highest best in use*” and the most advantageous market.

The valuation technique elected by the company should aim at minimizing the unobservable inputs and maximizing the observable ones. The inputs' relevance and availability might influence the choice of the valuation technique.

2.3.1 Market Approach

A company should adopt this method when there is an active market for the measured asset. In this case, the Fair Value of the asset should correspond to the market price.

This valuation technique implies that if there is another asset in the market exactly the same as the one being measured by the company (with the same characteristics and in equivalent circumstances), then the value of the asset of the company has to reflect the market value of the identical asset (Barreca & Chen, 2009).

This approach is based on the principle of substitution, which defends that “the economic value of any asset or thing tends to be determined by the cost of acquiring

an equally desirable item". It also portrays the premise that companies can compare opportunities (Claywell & Hanlin, 2009).

The Exposure Draft of May 2009 defines market approach as the method that "uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities". The Board assumes the market is efficient and reflects the real value of a certain asset or liability.

This technique is made possible by resorting to two methodologies: "*completed transaction method*" or "*guideline company method*". Both are based on the principle that the transaction's value is the market value with which both seller and buyer are satisfied.

According to Hanlin and Claywell (2009), this approach has some limitations. It departs from the assumption that the market is perfect while, in fact, it is affected by risk and comparability. These factors may influence the company's value and, subsequently, the assets' value.

2.3.2 Income Approach

The Exposure Draft of May 2009 states that this approach "uses valuation techniques to convert future amounts to a single present amount".

The Fair Value amount is determined by the expectation about the future amounts of Cash Flows generated by a specific asset or liability. Nonetheless, present values are influenced by the availability of data and other specific facts and circumstances, such as the price comparability (Appendix C, Exposure Draft 2009).

Bennet Kpenty (2009) explains that the amount of money a buyer is willing to pay is directly linked to the Cash Flows that will be generated in the future (capitalization method). The author exemplifies the logic behind this method with a Shakespeare's quotation: "What's past is prologue?" in other words, an asset will generate in the future substantially the same Cash Flows generated in the past.

Additionally, this author defends that using Cash Flows is a way of reducing manipulation, since these are more reliable and capture all variations and market's real trend.

The Exposure Draft of May 2009 also addresses how a company should discount Cash Flows in order to avoid over-predictions. For the Board, there are two possible techniques: the *discount Rate adjustment* and the *Expected present value technique*. The first one depends on the most likely Cash Flows calculated by comparison between existing companies in the market. To compute the present value of those Cash Flows, the company uses a rate that represents the inherent risk of the asset. The alternative method requires the company to estimate the weighted average Cash Flows and compute the present value using a rate that reflects the systematic risk² of the asset or liability.

2.3.3 Cost Approach

This approach should be chosen when there is no active market for the asset and when it is impossible to determine the Cash Flows that such asset will generate in the future. It is frequently utilized for software, machinery and equipment (Barreca & Chen, 2009).

This technique is not recommended when the asset is unique, when the amortization and depreciation values are not reliable or when the asset has legal protection (Barreca & Chen, 2009).

The Exposure Draft of May 2009's cost approach is a technique that "reflects the amount that would currently be required to replace the service capacity of an asset often referred to as current replacement costs". It is to be used mainly for tangible assets and when the company uses the *in-use* premise, since "a market participant would not pay more for an asset than the amount for which it could replace the service capacity of the asset".

The cost approach is based on "*current cost new*". Theoretically, this should be the cost reproduction yet, in practice, there are two ways of achieving this value; either through "*duplicate cost new*" or through "*replacement costs new*". Although related, they represent different concepts and different values.

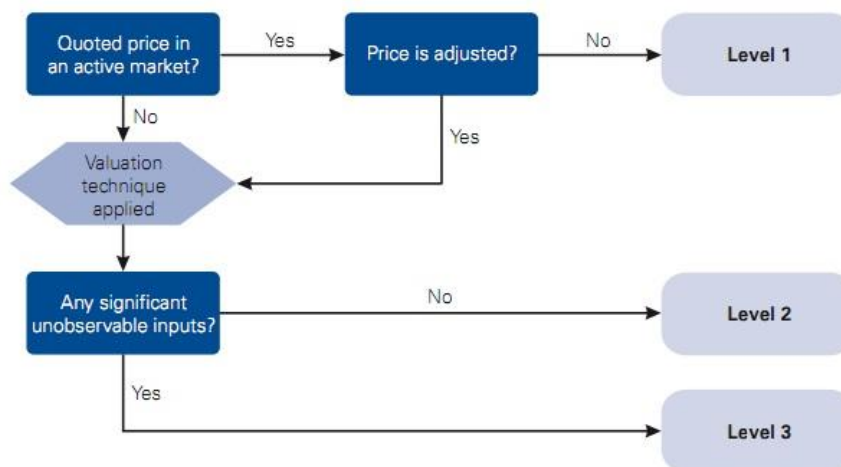
The *duplication cost new* represents the amount that a company has to incur associated to the construction or acquisition of an identical asset. The *replacement*

² Systematic risk of an asset or liability "refers to the amount by which an asset or liability increases the variance of a diversified portfolio when it is added to that portfolio." (C13, Exposure Draft of 2009)

cost new stands for the most economical acquisition cost of an asset that is able to satisfy equal needs and possesses the same utility and functionality of the asset.

2.4 Fair Value: Hierarchy

The FASB decided to create an inputs' hierarchy in order to increase comparability and consistency in Fair Value measurements by prioritizing certain inputs³ over others. KPMG elaborated a decision tree chart with the purpose of helping companies determine to which level an input belongs.



Source: KPMG

The Exposure Draft of May 2009 indicates three levels of inputs, also mentioning that "quoted prices in active market for identical assets or liabilities (level 1)" are the ones that a company should concentrate their attention on, while paying less attention to inputs belonging to the third level (considered as "unobservable").

The document includes a section dedicated to providing companies with the information they should disclose for each asset and liability, such as the presentation of the hierarchic level to which an input belongs to as well as the potential transferences between levels.

³ These inputs are the basis for computing the Fair Value

2.4.1 Inputs Hierarchy - Level 1

Level 1 is defined by the FASB as “quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.”

According to the contents of the paragraphs 46-48 of the Exposure Draft of May 2009, if the company does not have access to the market at the measurement date, the value to be taken into consideration should be the asset’s value at the time when the “*restriction ceases*”. Likewise, if the market price includes some restrictions, the company should adjust that value. In cases where the adjustment is significant, the input cannot be characterized anymore as belonging to level 1.

The Board states that the inputs included in this level are the most reliable ones, since the market is in constant variation and this pricing method is the one that best captures all changes. A company should use this type of inputs whenever possible. The asymmetry of information between companies and users under this inputs’ level is very low (Song & Thomas & Yi, 2008).

The Board further informs that if the quoted price after the measurement date has undergone a significant variation companies should report that change.

2.4.2 Inputs Hierarchy- Level 2

These inputs are “other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly” and “must be observable for substantially the full term of the asset or liability”.

In this hierarchical level, the valuation technique must be based on observable inputs that presuppose some adjustments based on unobservable inputs or on observable prices in inactive markets., it is also possible to include prices in this level that are influenced by market-based measures (Song & Thomas & Yi, 2008).

Appendix B⁴ suggests that the price of an asset or liability can be estimated considering Swap rates based on yield curves or observed at commonly quoted

⁴ Exposure Draft of 2009

ranges. A bank's prime rate, share's volatility and royalty rates should also be taken into consideration.

2.4.3 Inputs Hierarchy- Level 3

These are "inputs for the asset or liability that are not based on observable market data". The Draft also says that "unobservable inputs shall be used to measure Fair Value to the extent that relevant observable inputs are not available."

In this hierarchic level, companies have to use a market – to - market model, even when there is no active market. Thus, they have to place unobservable data models that will generate a less credible valuation (Huian, 2009).

Inputs at this level promote the highest degree of information asymmetry between companies. Therefore, users and investors might think that the information available to them is not reliable due to managerial discretion concerning the values presented (Song & Thomas & Yi, 2008). For Penman (2007 in Song & Thomas & Yi, 2008), it is extremely important to reduce the information asymmetry by monitoring the effectiveness of internal control systems.

Paragraphs 53-54 of the Exposure Draft of May 2009 argue that unobservable inputs should rely on the assumptions used by market participants. Those assumptions should include the inherent risk of a certain asset or liability and reflect the best available information.

In the disclosure section of the document, it is explicitly declared with respect to Level 3 inputs that companies should disclose all changing in valuation techniques and data significance, as well as explaining how the changing affects the Fair Value.

2.5 Fair Value debate

There is a mixed sentiment regarding the utility of using Fair Value vis-à-vis the Historical Cost measurement (Ronen, 2008). This section is focused on some aspects that are prominent in this debate.

Relevance versus Reliability

According to the FASB, financial information is useful if it is relevant and reliable. However, since it is almost impossible to achieve both qualities at the same time, there must be a trade-off. The Board considers reliability more valuable than relevance, while believing that investors are more concerned with the company's current value.

The Historical Cost is obviously not as relevant as the Fair Value but is clearly more reliable (Johnson, 2005). The latter is especially less reliable when there is no active market for a certain asset or liability, forcing managers to use valuations with some degree of subjectivity (Song & Thomas & Yi, 2008) thereby increasing the asymmetry of information (Lansman, 2007; Penman, 2007 *in* Song & Thomas & Yi, 2008).

From Johnson's point of view (2005), companies should use the Fair Value instead of the Historical Cost accounting principle, given that it renders the information presented in financial statements more relevant.

Transparency

Nally (2008) defends that the Fair Value measurement gives investors information about future expectations and managerial performance. In this author's opinion, "*Fair Value*, while imperfect, is the best available method to reflect market conditions". Within the overall financial statement's values, the Fair Value measurement increases transparency in articulation with the natural dynamics of the market.

According to Sapra (2005), when a company uses market prices to measure the value of a certain asset or liability, the information regarding the risks that investors and outsiders incur related to that particular asset or liability is more trustworthy, allowing decisions to be taken more accurately.

Volatility and Procyclicality

Sapra (2005) also used a metaphor with a bridge in order to explain the volatility of the market's behavior and prices. He stated that: "when a bridge moves, everyone adjusted their stance at the same time. The synchronized movement pushed the bridge that the people were standing on, and made the bridge move even more". The financial market behaves in the same way: when an entity reacts in a certain direction impacting on other entities that is, hoarding. This behavior generates price volatility and this variation has an immediate impact on financial statements.

This author also states that "Fair Value measurement tends to amplify the movements in assets prices". When prices fall, there is an incentive to sell the asset, thus putting additional pressure on the price; on the contrary, when the prices rise, the incentive is to hold on to the asset.

Moreover, Fair Value is a measurement that, when applied to assets, can generate a vicious cycle and cause a "*contagion effect*" (Laux & Leuz, 2009 *in* Strampelli, 2011) thus contributing to the procyclicality of the financial system (Laux & Leuz, 2009).

Manager's Discretion

Another important topic of this debate is managerial discretion, especially relevant when there is no active market for the asset or liability at the measurement date. In this situation, the company should make a forecast based on internal data.

When there are level 3 inputs, companies have to determine some indicators, such as the level of activity or sales. These are based on judgments that allow companies to enjoy greater freedom in measuring the Fair Value (Cortese-Danile & Mautz & McCarthy, 2010).

In order to overcome the possibility of not attaining an accurate measurement, some authors stress the importance of an ethical business attitude.

2.6 Fair Value and Economic Crisis

Over the last few decades, the IASB and the FASB have been increasingly using the concept of Fair Value in the accounting rules they issue. Simultaneously, companies are shifting from the Historical Cost approach to accounting to its Fair Value alternative (King, 2006).

The Fair Value accounting allows companies to prepare the financial statements with the current value of assets and liabilities, relying on the principle that an asset should be reported at the amount correspondent to its worth on the measurement date (Zack, 2009). According to some authors, “valuation is an art, not a science”; therefore, a professional judgment is inherent to each valuation assignment (King, 2006).

The Fair Value accounting has been blamed by many authors of being one of the main causes behind the bankruptcies and corporate scandals at the beginning of this century, as well as the main responsible for the 2008 financial crisis. Following the events in which major American companies (Enron, WorldCom) were involved during this past decade, the IASB and the FASB worked together in order to promulgate rules aimed at making it easier for investors to understand asset’s values in financial statements and reduce the complexity of the financial statements.

In the aftermath of 2008, the Fair Value accounting was the object of intense discussions among regulators, academics and investors (Strampelli, 2011). This debate has resulted in the definition of two dominant and distinct theories. On the one hand, critics point to fact that the Fair Value accounting contributed to the worsening of the financial crisis, by accelerating and amplifying its negative consequences (Magnan, 2009). According to the American Banks Association, “the problem that exists in today’s financial markets can be traced to many different factors. One factor that is recognized as having exacerbated these problems is the Fair Value accounting” (Laux & Leuz, 2009).

For Steve Forbes (*in* Pozen, 2009), chairman of Forbes media, the main cause of the 2008 financial crisis was neither subprime mortgages nor credit default swaps, but mark-to-market accounting. Brian Wesbury (*in* Pozen, 2009) also quoted as saying that “the vast majority of mortgages, corporate bonds, and structured debt are still performing. But because the market is frozen, the prices of these assets have fallen below their true value”.

Those authors who disagree with the critical current contend that Fair Value accounting was not a contributor, but a messenger (Koonce, 2008). In this line of reasoning, this measurement was not the cause of the financial crisis, having actually provided *early warning signals* that could have prevented the crisis if taken into consideration (Laux & Leuz, 2009).

It was equally noted that the Fair Value accounting “has helped to bring problems to a head earlier and with less damage than if the market-value had not been applied” (Johnson Carrie, 2008, *in* Huian, 2009) and that it “warns companies to stay away from the most volatile assets”, since it takes into account the risks associated to each asset (Liz, 2008, *in* Huian, 2009).

Even if the Fair Value accounting contributed to the recent financial crisis, adopting the Historical Cost would not be a better solution (Laux & Leuz, 2009). In fact, this concept is characterized by a lack of transparency that could be even more damaging in this time of crisis. Others suggest that during the financial crisis, assets could be recorded at a fixed amount, since Fair Value “reacts too fast to the market” (Huian, 2009).

In a positive note, the IASB and the FASB have created a joint task Group to deal with the financial crisis and restore the confidence in the markets,

2.7 Business Combinations

The last century was marked, among other factors, by the globalization and the openness of the markets phenomena. Globalization is used here as referring to the integration through a global network of political ideas, goods and trends. In this context, the goods sold worldwide have become more homogenous and cultural tastes all over the world more uniform.

Since companies no longer operate within a single country and investors are aware of what is happening worldwide, it has become increasingly important to create a single accounting system in order to standardize financial statements. The goal is not only to allow the comparability of the financial information between companies in different countries, but also to harmonize the financial statements of companies operating in multiple countries.

Therefore, from 2005 onwards, all European listed companies are required to prepare their financial statements in accordance to the IFRS and the IAS, standards settled by the IASB.

In 2004, the IASB created IFRS 3, a norm that deals specifically with Business combinations. This standard was designed to improve the transparency in acquisition accounting, an area where “a lot of accounting manipulation has occurred in the past” (Calwell, 2006).

2.7.1 The Concept

IFRS 3 states that a business combination consists in the “bringing together of separate entities or businesses into one reporting entity”.

The acquirer (the company that purchases another) has to have the control of the acquiree (the company that was purchased); otherwise the transaction is not considered as a business combination (paragraph 3).⁵

Accounting for a business combination requires that “the acquisition cost has to be expensed and that the value of the assets and liabilities being acquired has to be reported at their Fair Value”. Before the adoption of IFRS 3, the prevailing International Standards required that business combinations were accounted based on the Historical Cost principle (Gore & Zimmerman, 2010).

2.7.2 Method of accounting

According to the same standard “all business combinations shall be accounted for by applying the purchase method” (paragraph 4). In SFAS 141, it is explicitly mentioned that this is the only accepted accounting method in this situation.

⁵ In paragraph 2,a there is an exception for joint ventures. Even if the acquirer has the control over other, if it is a joint venture it is not specifies in this standard but in IAS 31.

Therefore, the acquirer has to take into account all assets and liabilities recognized by the acquiree, plus the contingencies assumed by the purchased entity (paragraph 9).

The document outlines four steps that companies should take into consideration, as follows:

[Step1 – Identifying the acquirer](#)

In all business combinations, there is an acquirer. The acquirer, as mentioned above, is the company that obtains control over another entity or business. The International Standards clearly mentions what is control and how a company obtains control over others.

A company controls another one when it has more than half of that entity's voting rights. Control can be achieved directly, through an agreement with other investors or under a statute.

In the case of a merger or when the business combination involves more than two entities, it may be difficult to identify the acquirer. In any case, it has to be defined.

[Step 2- Measuring the cost of the business combination](#)

The acquirer has to measure the cost of the business combination. This includes, besides the Fair Value of the assets and liabilities, the *equity instruments issued by the acquirer*, at the exchange date⁶, and any other direct costs attributed to the business combination, such as fees paid to lawyers or accountants (paragraph 37 and 38).

[Step 3- Allocating, at the measurement date, the cost of the business combination](#)

According to the same document, a company should reliably recognize, at the acquisition date, the identifiable assets, the assumed liabilities and any non-controlling interest that should be measured at the corresponding Fair Value (paragraph 18). Additionally, it should not recognize future losses incurred as a result of the business combination.

⁶ The Exchange date cannot be the acquisition date if the business combination involves more than a single transaction (IFRS 3- Paragraph 25)

In the SFAS 141, the value of the business combination is referred to as difficult to determine if the purchase is not paid in cash. In this situation, when the payment is made resorting to other assets (such as preferred stock) (Cox & Elsea & McConnell, 2009), the Fair Value of the different components of the price being paid should be taken into consideration.

Step 4- Recognition and measurement of Goodwill or a gain from a bargain purchase

Still under IFRS 3, Goodwill is defined as the “Future economic benefits arising from assets that are not capable of being individually identified and separately recognized” (Appendix A).

When the purchase price is higher than the net assets being purchased, the acquirer has to identify Goodwill. Goodwill is the difference between price paid in the transaction (with the consideration paid being considered at Fair Value) and the Fair Value of the net assets (Gore & Zimmerman, 2010). According to Sorin (2009), Goodwill includes all “unrecognized intangibles (and) is recorded as the difference between the total value of all financial, physical, and intangible assets less liabilities and the Fair Value of the underlying equity”

2.7.3 Disclosure

The acquiring company should include in its financial statements the “names and description of the combining entities”, the acquisition date, the percentage of control that it has over the acquiree and the components of the cost associated to the business combination, as well as information about future operations that are the result of the business combination.

2.8 Goodwill

Goodwill arises either through as a consequence of Business Combinations or as a result of the normal operations (internally generated Goodwill, discussed in IAS 38). Since the purpose of this dissertation is to analyze the treatment of this asset by Portucel Soporcel Group and compare it to what is required by International Standards, this issue will require a deeper analysis.

This concept and its valuation have changed over time. In the beginning of the twentieth century, Goodwill was defined as “encompassing the good and valuable relationships of a proprietor of a business with its customers” (Baldi & Trigeorgis, 2009). Today, Goodwill is a broader concept, which results from the evaluation of the earning generating capacity of a business (Baldi & Trigeorgis, 2009).

Regarding this concept and measurement, the IASB and the FASB reached a consensus (Bloom, 2009). Goodwill is an intangible asset⁷ with an infinite useful life. This class of assets has a growing importance in modern economy (Bloom, 2009). However, its Fair Value is hard to ascertain, as most of the times there is no active market (Sorin, 2009).⁸

According to Baldi and Trigeorgis (2009), Goodwill can be either developed internally or acquired as a part of a business combination. However, only the latter is recorded in the financial statements, since the former does not meet the conditions to be defined as an asset.

The same authors stated, in 2009, that there are two main methods to account for Goodwill. Companies can use the *residual approach* or the *excess profits approach*. The first method measures Goodwill as the “difference between the purchase price and the fair market value of an acquired company’s net tangible and identifiable assets”; the second approach explains Goodwill as the value that the combined companies can generate – above the expected profits for a similar business.

The IASB defends that companies should adopt the first method, since Goodwill must be accounted as a non-separable asset. The Board indicates that intangible assets

⁷ According to IAS 38, an intangible asset is an identifiable asset without physical substance, it must be controlled by the company and the company should expect future economic benefit.

⁸ Also, Bloom (2009) defended that it does not make sense to account for Goodwill based on Historical Cost.

with infinite useful life have to be tested for impairment and this is obviously the case of Goodwill.

Therefore, a standard was established (IAS 36 *Impairment of Assets*) with the goal of ensuring that companies do not classify their assets at more than their recoverable amount. This standard additionally identifies what the recoverable amount is and how a company can measure it, pointing to a specific treatment for the impairment of Goodwill.

In order to carry out the impairment test, companies must allocate the Goodwill created in a Business Combination, from the acquisition date, to cash-generating units (CGU) or to Groups of cash-generating units, likely to benefit from the synergies of the Business Combination.

3. Case-study: Portucel

The aim of this dissertation is to understand how companies measure Goodwill and recognize it according to Fair Value accounting. To accomplish this goal, this paper will focus on the Portucel Soporcel Group, a listed Portuguese company among the 50 biggest operators worldwide in the pulp and paper industry⁹.

This chapter is composed of three parts. It starts with an analysis of the industry, in order to understand the key features of the sector, regarding both the pulp industry and the paper industry. This section also addresses some relevant aspects that may influence the sector in the future.

Secondly, there is an analysis of the company which explains the structure of the Group, providing some performance indicators and relevant facts as well.

The third and final part is dedicated to the evaluation of Goodwill and its validation under the Fair Value accounting within the Group. The acquisition of Soporcel by Portucel and its impact in terms of Goodwill calculation and subsequent impairment tests are presented and developed in this section.

As part of my research on the treatment of Goodwill by the Portucel Soporcel Group, I met with the Group's Financial Director, Eng. Manuel Arouca, and with the Director of the Planning and Control Department, Dr. José Perdigão. They were kind enough to receive me and took the time to elucidate me regarding Goodwill's calculation, the methodology adopted and the values obtained. However, since this is a listed company, some information – namely concerning forecasts – is confidential and I am therefore not allowed to disclose it in this essay.

⁹ See at www.risiinfo.com more information about this industry

3.1 Industry Analysis

A quick introduction to the sector this company operates in as well as the presentation of some macroeconomic factors and trends are useful to shed light on a few fundamental drivers that affect the Portucel Soporcel Group.¹⁰

In the pulp and paper industry, the main resource is wood; this raw material is obtained through forest exploitation. In Portugal, 34.8% of the national territory (3.4 millions of hectares) is forest (see Exhibit 1). The pulp and paper industry is responsible for the use of 6% of the Portuguese forest area (see Exhibit 2).

This industry is also highly regulated; all players are obliged to follow legal and environmental rules in order to maintain a sustainable position in the market.

3.1.1 Production Cycle

The production cycle comprises several activities (see Exhibit 3). The first step is the production of wood, while the last is the production of paper. However, between these two activities there is an intermediate phase during which a product known as pulp is generated. Pulp can either be sold directly in the market or used as a raw material for the production of paper.

The main purpose of forest management (the production cycle's inaugural activity) is the assurance that there will be enough wood to transform for a determinant time period. After the preparation of the wood, it is transformed into pulp. The production of paper comes next, but there are yet a range of possibilities related to the recovery of energy¹¹ and recycling, which can also be a source of revenue.

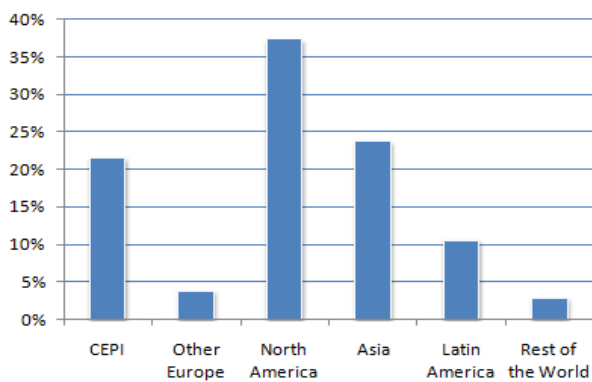
¹⁰ This overview will be focused on information available in CELPA, AICEP, UTIPULP, CEPI and companies in the industry, such as ALTRI and PORTUCEL

¹¹ Some residuals are recycled into steam and electricity productions

3.1.2 Pulp Industry

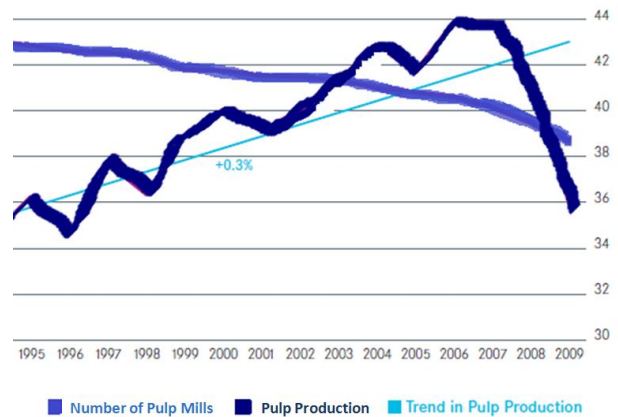
This product can be characterized as a commodity. This industry is also fragmented, since the collecting of wood is done mainly on a local basis due to high transportation costs.

In 2008, pulp’s world production totaled 192.1 million tons and Confederation of European Paper Industries (CEPI) Countries¹² were responsible for 22% of that amount, as shown in the figure below. According to the CEPI’s report, the production of pulp underwent a decreasing phase between 2007 and 2009 (see figure 2). In the same report, Sweden appears as the biggest producer, responsible for 32% of the European production. Portugal, accountable for 7%, comes as the third biggest player, together with Germany (see Exhibit 4).



Source: CEPI 2009

Figure 1: World's Pulp production (Breakdown)



Source: CEPI 2009

Figure 2: Pulp Production in CEPI Countries

¹² In 2009, the members of CEPI were: Austria, Belgium, Finland, France, Germany, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland, The Netherlands, and United Kingdom.

In terms of consumption, in 2009, the biggest market was North America. Nevertheless, the rest of the world has been increasing its importance in this industry, as illustrated below.

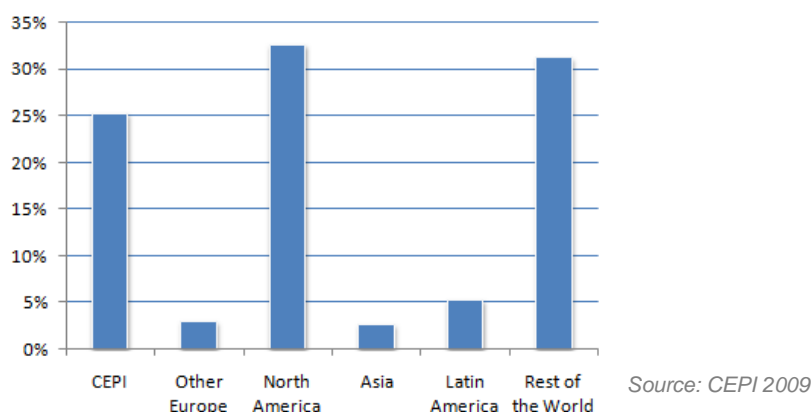


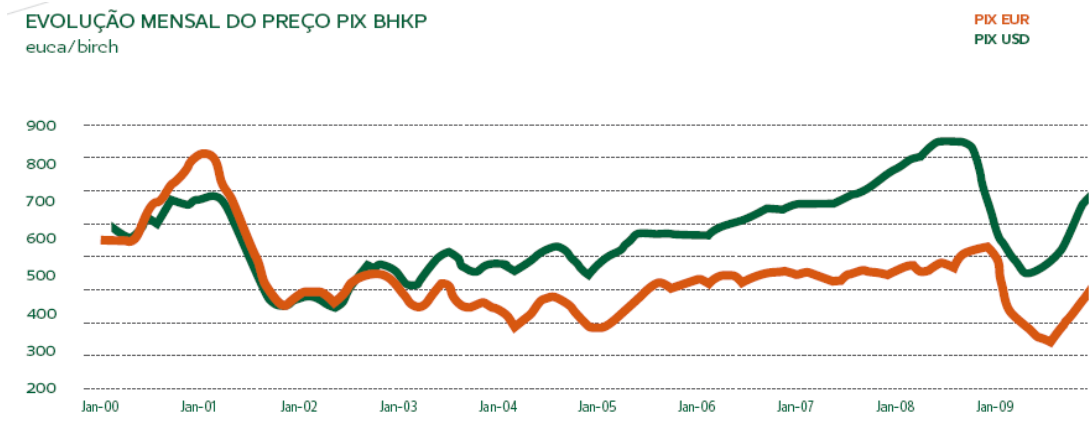
Figure 3: World's Pulp Consumption (Breakdown)

From a Portuguese point of view, a report released by AICEP in 2009 shows that the entire national production is in the hands of two corporations: Portucel and Altri. Each of them runs three factories, with a combined installed capacity of 2.2 million tons of pulp per year.

According to the same report, in 2008, the total production in Portugal reached 2.02 million tons, less than in 2007, therefore in line with the European trend. The document also pointed out that the reasons behind this downwards stance were the drop in the production on pine's pulp and the bankruptcy of small factories, combined with the economic contraction resulting from the financial crisis.

In 2009, Portugal was in sixteenth place in the world ranking of pulp exports, with a market share of 1.7%. Exports represent almost 95% of the total production and the largest buyer of the domestic production is Spain (with a 34% share) (see Exhibit 6). Due to the contribution of markets such as China, Tunisia and Turkey, "*the rest of world*" region is becoming more important for the Portuguese pulp export.

As shown below, this industry has recorded high price volatility, a fact which contributed to the closure of small companies worldwide and prompted others to slow down production in 2008 and 2009. This is clearly a cyclical industry, highly sensitive to business cycles and closely affected by the overall economic situation.



Source: Portucel Annual Report 2009

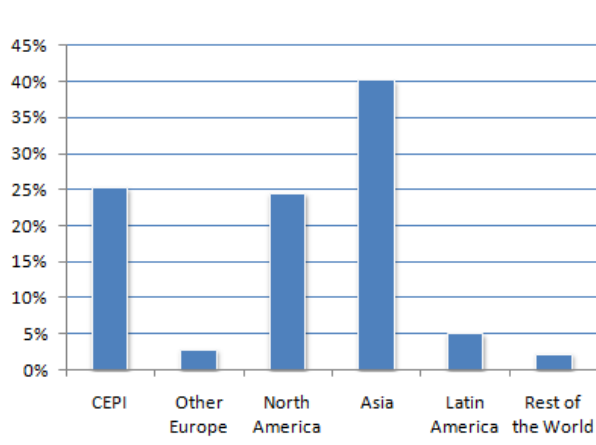
Figure 4: BHKP Price Evolution

3.1.3 Paper Industry

Paper is the result of the chemical transformation of pulp. Pulp consumption levels are related to paper production levels, the former being the raw material used in the production of the latter.

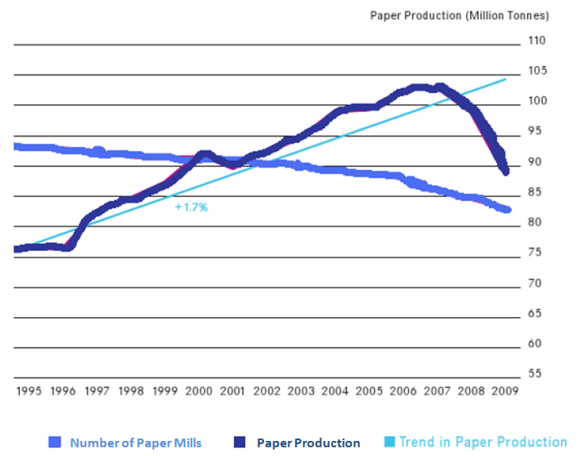
There are five main types of products that can be produced in this industry: Newsprint; Other Graphics (including UFW – Uncoated Wood Free – and CFW – Coated Wood Free – which are the most important types of paper, representing almost 40% of the total production in CEPI countries); Case Materials; Other Packaging; and Tissues (see Exhibit 7).

In 2008, the total production of paper amounted to 390.9 million tons, with CEPI Countries representing 25% of the total. According to the CEPI’s report, the production of paper is also in a decreasing phase, following the aforementioned trend for pulp.



Source: CEPI 2009

Figure 5: World's Paper production



Source: CEPI 2009

Figure 6: Paper Production in CEPI Countries

Regarding the paper produced by CEPI countries, the biggest producer in 2009 was Germany, with 24% of the total produced. Portugal does not occupy a prominent place in this field (see Exhibit 8).

In 2008, Asia was the main consumption market, representing almost 40% of the world consumption, as the graphic shows.

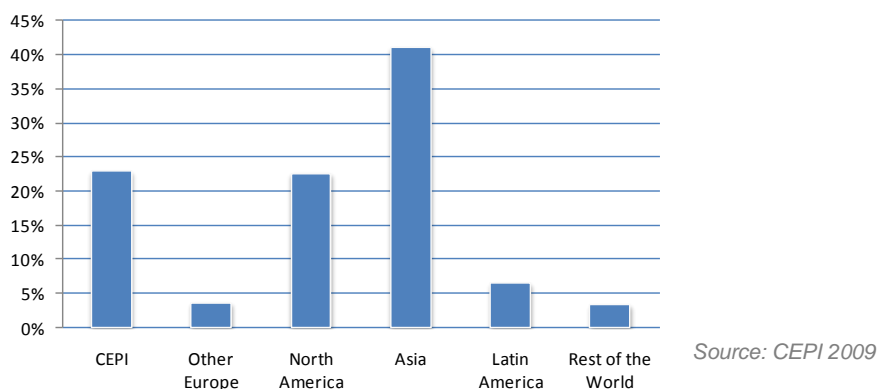


Figure 7: World's Paper Consumption

Looking at the Portuguese situation, a report made by *Associação da Indústria Papeleira* (CELPA), in 2009 affirmed that the use of pulp for the production of paper increased 3% in 2008, when compared to 2007. Another report from AICEP states that the Portuguese industry has made a significant progress in pulp and paper production, moving towards to a more integrated production process. In fact, until recently, Portugal was mainly a pulp producer. Nowadays, however, the country has been betting more on paper, ensuring the establishment of a complete supply chain, thus increasing the companies' competitive advantage.

Concerning the Portuguese paper production, *Graphic's* type, also known as *Printing&Writing Paper*, represents 67% of the total production since 2004. This segment is also Portucel's core business.

Exports represent almost 87% of Portugal's total sales of paper. Domestic sales have been losing importance over the years, while the Spanish market absorbs about 26% of the total exported. Europe still represents almost 75% of exports, but markets such as the Middle East, Asia and Oceania have been gaining an increasing weight (see Exhibit 9)

3.1.4 Future Trends

In 2009, due to the economic crisis, the global performance in this sector was negative. In the U.S and in Europe consumption fell 3% and 4%, respectively, while in Japan consumption dropped at an impressive 9% rate.

Since the pulp and paper demand is closely related to GDP growth, during a period characterized by the contraction of the economy, it is expected that the global demand for pulp and paper will fall reflecting directly the GDP evolution.

During the last few decades, paper demand in developed countries was influenced by two major and opposing factors. On the one hand, the increased use of computers has led to high growth mainly in the use of printing and writing paper. On the other hand, internet penetration has reinforced the gradual decline of the consumption of printing and writing paper and newspapers.

The emergent markets constitute the biggest challenge that all players in the developed countries have to face, due to their increasing consumption levels of both pulp and paper, and to the competitive prices achieved by the companies operating in these areas. Producers from emerging markets benefit from economies of scale, related to their capacity to expand their forest area and to lower labor costs.

Companies in the developed countries have to increase the efficiency in their supply chain in order to gain a competitive advantage *vis-à-vis* their counterparts from emergent markets. With the aim of creating a unified supply chain and mitigate volatility in the price of raw materials, while reducing costs and inefficiencies, companies in the developed countries have been integrating the production process..

Examples of how companies can reduce costs can be found in North America and in Europe, where companies are already investing in the manufacture of biofuels extracted from wood. This will increase operating margins, since biofuels can replace other types of fuel utilized in the production of paper. Integrating the supply chain can reduce costs by shrinking, for example, the elevated transportation costs associated mainly with the first phase of the production process.

The Chinese market is currently considered the best outlet for pulp companies because of its size and fast growth rates. Besides, China does not have many natural resources; which means that pulp demand must be satisfied largely through imports. In 2009, the consumption of pulp in the country grew by 44%, compared to 2008.

3.2 Company's Overview

Portucel launched its industrial activity in 1953, in Cacia¹³. At that time, its core business was the production of pulp from pine wood. Until 2000, when Portucel acquired INAPA, SA¹⁴, the company only produced pulp. After that acquisition, Portucel was able to produce both pulp and paper. One year later, Portucel bought Soporcel, a strong competitor in both the pulp and paper markets. This acquisition marked the formation of the Portucel Soporcel Group (see Exhibit 10 and 11), which became the fifth main player in the European ranking of Uncoated Woodfree (UWF) paper.

Nowadays, the Portucel Soporcel Group is one of Portugal's strongest companies. In 2009, it was responsible for 3% of the national exports and 0.8% of the Portuguese GDP.

The Group is internationally recognized as having one of the most developed and largest industrial complexes in the industry. The new paper mill, located in Setúbal, which started its production activity in August 2009, is the world's largest and technologically most advanced paper mill. This complex allows the Group to produce 1.6 million tons of paper annually. This investment also placed the Group at the forefront of the European production of UWF paper for printing and office, and guarantees it the sixth place, in the same category, in the worldwide ranking.

Besides the pulp and paper industry, the Group has been increasing its presence in the energy sector, having produced 1.84 TWH of electric energy in 2009 (17.5% more when compared to 2008). In this sector, the Group occupies an equally prominent position, leading the national production of biofuels.

The Group runs three paper mills located in Cacia, Figueira da Foz and Setúbal. Cacia produces pulp and energy. The other two mills, besides the production of energy, are integrated producers of pulp and paper. Nowadays, the Group employs 2,331 people directly plus several thousand workers indirectly.

This Group has 767 million shares outstanding with a nominal price of 1 euro each. The Group has 2.12% of own shares; the biggest shareholder, with 75.44% of the

¹³ Near Aveiro

¹⁴ INAPA was the first Portuguese company producing office paper in large quantities.

outstanding shares, is Semapa¹⁵, followed by Bestinver Gestion, S.A., which controls 2.01% of the Group's equity. The remaining shares belong to smaller shareholders (see Exhibit 12).

In 2009, Portucel's share price performed in line with the PSI 20 index, registering an increase of 31%, which helped to offset the loss recorded in 2008. In 2009, the lowest registered market value for each share was 1.35€ and occurred on the 20th of March. The biggest market capitalization took place on the 29th of September; the transaction price that day was 2.10€ per share. When compared to the *paper and forest products index*, the Group's stock outperformed the average of the Nordic companies, which registered a loss of 7% (see Exhibit 13).

Portucel Soporcel Group has been developing a portfolio of differentiated products and brands, which allows the Group to target multiple segments with various brands. According to the Group's annual report of 2009, brands represent 61% of the total sales.

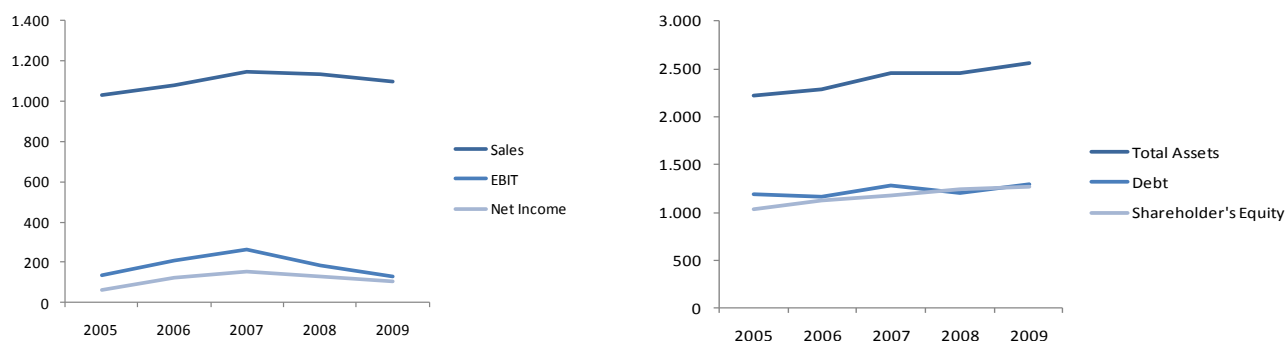
The Group's brands are divided into two categories: office paper and offset paper. The most important brand is Navigator, the European market leader with a full range of office paper solutions. The Group also holds the well-known Pioneer, Inacópia, Target, Discovery, Multioffice and Explorer brands. In what concerns the Offset Paper, the most important brand is Soporset, the European market leader for high quality printing paper. The Inaset and Pioneer Graphic brands also belong to Portucel Soporcel.

Figure 8 and Table 1, presented below, contain some useful indicators on the company's operating and financial performance over the 2005-2009 period.

<i>in Million Euros</i>	2005	2006	2007	2008	2009
Sales	1.029,0	1.080,7	1.147,4	1.131,9	1.095,3
EBIT	133,3	209,3	260,3	181,1	132,1
Net Income	63,3	124,7	154,0	131,1	105,1
Total Assets	2.226,9	2.292,7	2.458,7	2.451,3	2.561,2
Debt	1.195,0	1.169,1	1.282,4	1.205,1	1.290,6
Shareholder's Equity	1.032,0	1.123,6	1.176,2	1.246,3	1.270,6

Table 1: Main Financial Indicators

¹⁵ Semapa is a Portuguese holding company present in three industries: pulp and paper industry through Portucel, cement industry through Secil, which is controlled 51%; and in the environment and animal transformation through 80% controlled ETSA.



Source: Portucel Soporcel 2009 annual report

Figure 8: Financial Indicators

Net income fell 19.8% in 2009, reflecting the 3.2% drop in sales and the 31% rise in depreciations that resulted from the incorporation of the new paper mill. The 3.2% sales reduction mainly reflected the 5.6% reduction in the price of paper, which offset the rise in volume recorded in that year.

Earnings per share amounted to 0.141€ in 2009, 0.03€ less than in 2008.

The second graph demonstrates that the total assets increased in 2009. The main reason for that evolution was the incorporation of the Setúbal paper mill, that added 522.3M€ to Tangible Fixed Assets.

3.3 Goodwill in Portucel

3.3.1 Accounting Principles

Until 2005, all Portuguese companies followed the accounting rules described in the *Plano Oficial de Contas* (POC), the Portuguese generally accepted accounting principles.

From 2005 onwards, listed companies in Portugal had to adapt their accounting standards and financial statement's structure to the international financial reporting standards (IFRS), set by IASB, a specialized board elected by the European Union¹⁶. These rules were adopted by all listed European Union companies and the aim was the

¹⁶ IASB

creation of a platform of comparison between companies, ensuring that the information was well presented and consistent.

Portucel Soporcel Group created in 2003 a specialized team to ensure that the transition phase was concluded on time and that the Group was ready to adopt the European standards. That team identified some differences between the old standards and the new ones, which were presented in the 2005 Annual Report in a section specifically devised not only to illustrate all changes brought about by the adoption of the new accounting standards but also to make a comparison with the previous accounting rules (see Exhibit 14).

Among the many changes observed during the transition phase, the ones which deserved more attention were related to the main topic of this dissertation, the *Fair Value measure*. The Group identified the following assets as being the objects of a Fair Value approach under the new rules:

1. *Goodwill*: Concerning this asset, both POC and IFRS accounted it in a similar way. However, IFRS 3 does not accept the amortization of Goodwill and presented an alternative, *Impairment Tests*, to be done periodically. Additionally, the new standard established that companies had to recognize the negative Goodwill in the income statement.
2. *Biological Assets*: According to POC, the Group's forest was accounted at the Historical Cost. However, with the application of IAS 41, these assets had to be recognized at their Fair Value. All variations in the Fair Value of these assets over a certain period are accounted for in the correspondent income statement.
3. *Financial Instruments*: The POC affirmed that the gains or losses with financial instruments were to be registered in financial statements, as required by the specialization criteria. With IAS 39, companies must recognize financial instruments at their Fair Value and all variations in the Fair Value must be recognized in the income statement.

Since 2005, Portucel Soporcel Group has been preparing its financial statements in accordance with the IASB's rules. Financial statements are prepared respecting the *going concern principle*, and some information is based on judgments and estimates. The Group also lists the amounts that were subject to judgment, therefore facing a risk

of generating relevant adjustments. In 2009, the list comprised Impairment of Goodwill, Income Taxes and Fair Value of Biological Assets.

3.3.2 Goodwill

IFRS 3 defines Goodwill as “*future economic benefits arising from assets that are not capable of being individually identified and separately recognized.*” This definition recognizes that the value of a business as a whole may be greater than the amount which was invested in it; the difference obtained is acknowledged as Goodwill.

Before this accounting standard was issued, Goodwill was considered as an asset that was unaltered over time, until it became obvious that Goodwill was worthless and was written off.

At the time of Soporcel’s acquisition, the Goodwill, as defined in POC, was the difference between the investment made in the acquisition of subsidiaries and the revaluation of their assets.

The current standards settled by IASB treat Goodwill as an asset with an infinite useful life. Goodwill is not amortized; instead, it has to be tested annually for impairment. Additionally, this standard states that the amount amortized prior to the 31st of March 2004 is not written back and that an impairment loss cannot be reversed.

Moreover, the standard identifies the existence of the negative Goodwill, which arises in situations when a company acquired another for an amount lower than its Fair Value. Negative Goodwill should be credited in the income statement at the acquisition date.

In the Portucel Soporcel Group, Goodwill is defined as “*The excess of the cost of the acquisition over the Fair Value of the Group’s share of the identifiable net assets acquired*”, the Group also states that “*If the acquisition cost is less than the Fair Value of the net assets of the subsidiary acquired (negative Goodwill), the difference is recognized directly in the income statement*”. This definition is in line with what is defined by IFRS 3.

For this company, the excess paid in the acquisition of an associate is recorded directly in the balance sheet under Investments in Associates. When the Group acquires a subsidiary, the excess paid is also recorded directly in the balance sheet, but is

accounted as a separate asset – Goodwill. Until 2009, this Group did not have any values included in *investments in associates*, since its policy was to control all business combinations.

This Goodwill amount resulted from the acquisition of 100% of the share capital of Soporcel – Sociedade Portuguesa de Papel, S.A., in 2001. (The Group does not include the difference between the investment in Papéis Inapa, S.A. and its Fair Value as Goodwill, since the difference was not materially relevant; therefore, the Group decided to include it in equity, as allowed by POC at that time)

Goodwill therefore resulted from the difference between the € 1,154.8 million price paid by Portucel for the acquisition of the full control of Soporcel and the Fair Value of Soporcel's equity at the acquisition date (the 1st of January 2001) and amounted to €428.2 million.

Under POC, Goodwill was annually amortized at a constant rate. The Group opted for applying a 4% rate, because Soporcel's assets had an average useful life of 25 years. From 2001 to 2003, the accumulated amortization was €51.4 million.

Goodwill has a significant weight on the Group's balance sheet; in 2009, it was the second biggest asset, representing 14.97% of total assets. The table below shows the relative weight of Goodwill in the overall Group's assets since 2001.

<i>in Million Euros</i>	2001	2002	2003	2004	2005	2006	2007	2008	2009
Goodwill	428.18	411.05	393.93	376.80	376.80	376.80	376.80	376.80	376.80
Goodwill's Annual Amortization	17.13	17.13	17.13	0.00	0.00	0.00	0.00	0.00	0.00
Total Assets	-	2,729.90	2,721.50	2,326.20	2,226.90	2,292.70	2,458.70	2,451.30	2,561.20
Relative Weight of Goodwill		15.1%	14.5%	16.2%	16.9%	16.4%	15.3%	15.4%	14.7%

Table 2: Relative Weight of Goodwill in Portucel Soporcel Group Total Assets

Before the adoption of the International Standards, the Goodwill's annual amortization was €17.1 million. If the Group had been following POC's rules until 2009, at the end of that year Goodwill (net of accumulated amortizations) would be accounted in the balance sheet at €191.2 million and would represent less than 12% of total assets, as illustrated below.

<i>in Million Euros</i>	2001	2002	2003	2004	2005	2006	2007	2008	2009
Goodwill	428.18	411.06	393.93	376.81	359.68	342.56	325.43	308.31	291.18
Goodwill's Annual Amortization	17.13	17.13	17.13	17.13	17.13	17.13	17.13	17.13	17.13
Total Assets	-	2,729.90	2,721.50	2,326.20	2,226.90	2,292.70	2,458.70	2,451.30	2,561.20
Relative Weight of Goodwill		15.06%	14.47%	16.20%	16.15%	14.94%	13.24%	12.58%	11.37%

Table 3: Relative Weight of Goodwill in Total Assets (under POC)

3.3.3 Impairment tests for Goodwill

The Impairment test was introduced to ensure that the carrying amount¹⁷ of an asset in the balance date does not exceed its recoverable amount¹⁸. Almost all assets are subject to impairment tests under IAS 36 (*Impairment of assets*) or under other standards that address specific assets.

Under IAS 36, companies have to assess periodically whether a certain asset has lost value due either to internal factors, such as physical damage or obsolescence, or to external factors, such as the decline in market prices. The same standard mentions that in the case of intangible assets with an infinite useful life, the impairment test must be done annually.

There is an impairment loss when the carrying amount of an asset in the balance sheet is greater than its recoverable amount. The recoverable amount corresponds to the highest value between the Fair Value of an asset minus the selling cost (Transaction price) and its Value in Use. The first one is defined by IAS 36 as: “*the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties*”, while the second one is: “*the discounted present value of the future Cash Flows expected to arise from: the continuing use of an asset, and from its disposal at the end of its useful life*”.

Goodwill, under IAS 36, merits a particular treatment, slightly different from the general stance. This asset should be tested annually and must be “*allocated to each of the acquirer's Cash Generated Units (CGU)*” from the acquisition date. The CGU should

¹⁷ IAS 36 defines carrying amount as : “*the amount at which an asset is recognized in the balance sheet after deducting accumulated depreciation and accumulated impairment losses*”

¹⁸ IAS 36 defines recoverable amount as : “*the higher of an asset's Fair Value less costs to sell (sometimes called net selling price) and its Value in Use*”

not be overly complex and should match as much as possible the creation of future value.

In the Portucel Soporcel Group's situation, as mentioned above, the Goodwill accounted in the consolidated balance sheet results from the acquisition of Soporcel in 2001.

Note 15 of Portucel Soporcel Group's 2009 annual report states the following: "every year the Group calculates the recoverable amount of Soporcel's net assets (to which Goodwill recorded in the consolidated balance sheet is associated), based on value in use calculations, in accordance with the discounted cash flow method. The calculations are based on past performance and business expectations with the actual production structure, using the budget for next year and projected Cash Flows for the next 4 years, based on a constant sales volume. As a result of the calculations, no impairment losses have been identified".

According to the group, since 2001 Soporcel's value has always remained above the value recorded at the acquisition date, which means that no impairment loss has been recorded over these 9 years.

3.3.3.1 Valuation Technique

According to IAS 36, in the absence of a deep and liquid market, a company should compute the Fair Value of an asset by its *Value in Use*. In order to compute the *Value in Use*, companies must use the income approach and should pursue the two following steps: the estimation of the Cash Flow and the estimation of the discount rate.

To attain the *Value in Use* of Soporcel as CGU, Portucel Soporcel Group uses the Discounted Cash Flow (DCF) method. This technique assumes that the asset's Fair Value corresponds to the present value of the expected future Cash Flows, discounted back at a rate which reflects the associated risk of these Cash Flows.

There are two distinct phases to this method; the explicit forecast horizon, during which Cash Flows are calculated for each period, and the perpetual horizon, during which Cash Flows are expected to stabilize, allowing the prediction of a growth rate.

The Fair Value of an asset when this technique is adopted is provided by the following formula:

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

Where:

FCFF_i - Represents the free cash flow to the firm in period i

WACC - Represents the Weighted Average Cost of Capital, which is the associated risk of the Cash Flow

TV_n - Represents the terminal value in period n, which reflects the estimated value of future “stabilized” Cash Flows

G - Represents the long term growth rate

This method has some worth mentioning advantages and disadvantages. Some authors defend that this is the method that best suits the intrinsic value of an asset, since it does not use relative metrics as multiples and also due to the fact that it is based on estimated Free Cash Flows to the Firm (FCFF). Its value is reliable, given that FCFF is a trustworthy measure.

Regarding the disadvantages, some authors stress that the use of this method possibly entails a wild fluctuation of the values. Furthermore, the valuations are sensitive to errors of judgment.

Portucel Soporcel Group uses this technique. For its managers, it is the most reliable method available and it is the metric used for the revaluation of other assets. Usually, Portucel Soporcel Group’s managers perform complementary analysis using different approaches, such as multiples, in order to cross check and validate the results obtained by the DCF method.

3.3.3.1.1 Free Cash Flow Calculations

According to IFRS 3 Goodwill should be allocated to CGU's according to financial aggregates such as sales, EBITDA, EBIT. However, these indicators do not take into account the existing synergies that might arise from business combinations. The only indicator that includes the value of synergies is the FCFF.

To capture all the variations and synergies between companies, the International Board recommends the use of Free Cash Flows.

To estimate Free Cash Flows, it is recommended the use of budgets, based on reasonable and verifiable assumptions. It is also recommended to take into account external factors, like market growth and market prices, as well as relevant information from research reports prepared by banks and other entities and from industry reports. The estimation of Free Cash Flows should not go beyond a five-year time frame, in order to avoid the manipulation of the cost structure, the volume of sales and/or growth trends.

At the Portucel Soporcel Group, the responsibility for estimating lies on the Head of the Planning and Control Department. These estimates are then validated and approved by the Board at a formal meeting. Since the Group is a listed company, these projections and the remaining calculations are then still revised and validated by the external auditor.

During my research, Group's managers explained they were not allowed to disclose the FCFF's projections because they are a listed company. They did show me, nevertheless, how they had reached to the different components that are used in the calculations.

PortucelSoporcel Group calculates the FCFF by adding to operating income the non-cash costs, such as depreciations and amortizations, by adjusting the changes in working capital and by deducting capital expenditures (CAPEX).

Sales

- Cost of Sales

= Operating Income

- + Depreciation and Amortization

= **Cash Flow from operations**

- Changes in Working Capital
- Capital Expenditures (CAPEX)

= **Free Cash Flow to the Firm**

In order to get the most reliable estimate, the operating income is based on the budget, prepared by the commercial department to ensure the credibility of the amounts presented.

The Group considers a constant amount of sales over a 4-year term. As this is a cyclical sector, this time horizon is considered to be long enough to cover positive and negative phases of the cycle. According to the company, sales estimates are prepared by the commercial department and included in the annual budget, already incorporating the estimated price evolution. Currently, the Group is operating at a rate of 100%, and the entire production is fully sold, so the selling price is the main variable to be concerned about.

The second component of FCFF's calculation is the Cost of Sales. The Group estimates a steady growth rate, yet below the inflation rate; the idea is to reflect efficiency gains that the company expects to achieve as a result of the existing Learning Curve. The Group places the inflation rate at 2%.

Soporcel's production is concentrated in an integrated mill located in Figueira da Foz. No pulp is bought in the market and the operating process only requires one raw material that may influence the production costs: wood. As wood is extracted from the Group's own forest grounds, its cost can be easily controlled.

Regarding CAPEX, the Group also looks at a 4-year horizon. The Group finds that, for the next four years, there will only be maintenance costs. In the fifth year, the Group will have to incur in a bigger expenditure, related to the maintenance of the machinery.

The Group considers a constant value for amortization and depreciation costs, since all assets are amortized and depreciated on a straight-line basis. Additionally, as no further expansion investments are expected (only maintenance costs are foreseen), amortizations and depreciations are not expected to change in the transition from period to period.

For the calculation of the Working Capital, which includes cash, accounting receivables, inventories and accounting payables, the Group assumes a period of three months for both accounting receivables and payables. For cash and inventories, the Group considers itself to be secure for the upcoming 4 years, because it is producing at a 100% rate and the production is all sold out.

The FCFF that is used for the perpetuity is identical to the fourth year FCFF. The Group behaves in a conservative way, considering a 0% long term growth rate.

3.3.3.1.2 WACC Calculations

WACC represents the cost of capital for the firm and is the rate at which FCFF are discounted. It is influenced by the company's capital structure and by the required rate of return to equity and to debt. Its equation is the sum of the cost of each capital component, multiplied by its proportional weight.

The WACC formula is the following:

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

Where:

$R_E=K_E$ – The cost of Equity E – Shareholder's Equity T – Corporate Tax Rate
 $R_D=K_D$ – The cost of Debt D - Debt

In order to compute the discount rate based on the WACC, companies have to determine the cost of equity, the cost of debt and the proportional weight of the debt and of the shareholder's equity in the firm's assets.

Portucel Soporcel Group estimates the WACC on semiannual basis. In the 2009 annual report, the discount rate used was 7.18%. This rate has undergone some changes over time. It reached its peak in 2008, at 8.1%, while the lowest observed value was 7.0% in 2005. As explained earlier, since this is a listed company, managers are not allowed to disclose confidential information, but they did explain me how these values were estimated.

The Group assumes the weight of debt and the shareholder's equity in firm's assets to be equal and constant over time. According to the company, the reason for this stance is related to the fact that this is a cyclical industry, investing on long-term projects. Due to the fact that the capital structure is not stable and fixed, the Group has opted for the definition of average target values.

In order to estimate the cost of equity which represents the return demanded by investors to apply their money in alternative investments with a similar risk profile, the Group uses the traditional CAPM¹⁹ formula, which is presented below:

$$K_E = R_F + \beta_E (R_M - R_F)$$

With this equation, it is possible to determine the cost of equity. To do so, the Group identifies the Risk Free Rate (R_F) that represents the rate of return in an investment with no associated risk. The company also takes into consideration the Market Risk Premium ($R_M - R_F$), common to all companies in the market. This Premium represents the difference between the expected return on a market portfolio and the Risk Free Rate. Additionally, the Portucel Soporcel Group determines the variability of the return of the asset compared to the market represented as β_E .

Portucel uses the 10-year Portuguese Government Bond Yield to estimate R_F . This information is obtained from Reuters on the day WACC is calculated. According to

¹⁹ CAPM – is the capital asset pricing model - which is used to determine the return rate of an asset taking into account the systematic risk and the risk free.

Trading Economics²⁰, from 1997 onwards, the average rate for the Portuguese Government was 4.71%, its peak having been reached in April 2011 9.41% (see Exhibit 15).

The Market Risk Premium is also obtained from Reuters, on the WACC's calculation date.

The Group uses a levered β_E , which is the multiplication of the proportional weight of the debt over shareholder's equity after taxes by the unlevered β . The unlevered β is extracted annually from the Damodaran's website and corresponds to the average of the companies operating in the forest and paper industry worldwide. The marginal tax rate (T) is the corporate income tax in Portugal, common to all companies operating in the country, was 26.5%.

For the estimation of the cost of debt, which represents the effective rate at which a company pays its debt, the Group uses a straight formula as presented below:

$$K_D = (R + D_P) \times (1 - T)$$

The Portucel Soporcel Group uses the Mid Interest Rate Swap 10 Years (R) added by a Debt Risk Premium to compute the cost on debt. The company has made long term investments and therefore believes the use a long term rate to be appropriate to. The Mid Interest Rate Swap (10 Years) is also obtained from Reuters, on the day of the WACC's calculation.

The Debt Risk Premium (D_P) represents the company's debt risk (default risk) and, according to the company, it is highly volatile. This value is estimated internally.

3.4 Case-study: Main Conclusions

The Portucel Soporcel Group's Goodwill resulted from the acquisition of 100% of Soporcel, S.A. This asset represents the difference between the value of the investment and the Fair Value of the acquired subsidiary on the 1st of January 2001.

This acquisition was crucial for the Group, since it allowed Portucel to achieve a prominent position in the worldwide pulp and paper industry.

²⁰ <http://www.tradingeconomics.com/portugal/government-bond-yield>

Before the adoption of the rules set by the IASB, Goodwill was capitalized and amortized on a straight line basis. Since 2005, Goodwill is no longer amortized. Instead, companies must allocate Goodwill to CGU and perform impairment tests. International Standards recommend impairment tests to be carried out using Fair Value techniques. The goal is to understand if the value in the balance sheet is not above the value for the recoverable amount.

According to Portucel Soporcel Group, the value of the Goodwill that resulted from the acquisition of Soporcel is “*very comfortable*”: Soporcel is now worth much more than in 2001, when Portucel bought it. For this reason, there has been no impairment loss since 2005, when the Portuguese listed companies adopted European Standards.

The adoption of International Standards, specifically regarding the treatment of Goodwill (IFRS3 and IAS 36), has brought greater volatility to financial statements. Under the previous methodology, Goodwill was amortized over the estimated useful life.

In order to achieve the recoverable amount, Portucel performs an analysis based on past performance. The models used can be explicit, when the calculations are based on the most likely scenario, or implicit, when adjusted historical data is used. The former model is generally referred to as the Discounted Cash Flow model– adopted by this company to determine the Fair Value of Soporcel.

In order to apply this model, the Group has to estimate the FCFF and the discount rate. The FCFF calculations are prepared annually and approved by the Board. To estimate the FCFF, the Group must make some assumptions concerning sales and costs. These assumptions are based on past performance, information availability and market conditions. Naturally, there is some degree of uncertainty here. However, the Group defends that this uncertainty is of minor importance, in the context of a conservative policy. Moreover, the actual values of FCFF have proved much higher than budgeted from each predetermined period to the next.

However, analyzing the 4-year projection, it is possible to verify that there is a trend to smoothen the results, something interesting in a cyclical industry. This trend is observed particularly in:

1. The assumption of a steady sales value over the 4 year period;

2. The assumption of an increase in the production efficiency during every period, in order to get a constant growth rate below the inflation rate;
3. The assumption of a steady amount of amortization and depreciation, based on the fact that there are only maintenance costs foreseeable for the 4 year period;

Regarding the calculation of the discount rate, the WACC, the Group's opinion is that it is following its own conservative position. This Group obtains some rates from Reuters in order to get reliable and transparent values. However, it also makes some assumptions that may influence the Soporcel's recoverable amount.

The first important assumption, which influences both the WACC formula and the cost on equity, is the company's capital structure. The Group assumes that the proportional weight of debt and shareholder's equity on total assets is always equal and constant. According to the company, this proportional weight is due to the cyclicity of the industry and it corresponds to the average and desirable weight.

Nevertheless, looking at the evolution of Net Debt and ²¹ Equity Market Value (market capitalization)²² between 2005 and 2009, it is possible to observe that the proportional weight of Financial Debt²³ in the sum between the Financial Debt and shareholder's Equity Value was, on average, 26.60%, below the 50% level assumed by the company. This may also reflect the aforementioned smoothing.

<i>In Million Euros</i>	2005	2006	2007	2008	2009
Net Financial Debt (A)	736.14	480.09	367.53	480.43	699.75
Shareholders Equity Value (Market Capitalization) (B)	1,419.88	1,842.00	1,688.50	1,188.86	1,518.89
A+ B	2,156.02	2,322.09	2,056.03	1,669.29	2,218.64
A/(A+B)	34.14%	20.67%	17.88%	28.78%	31.54%

Table 2: Proportional Weight of Financial Debt in the Sum of Financial Debt and Market Capitalization

²¹ I am using the Group's figures as a proxy for Soporcel, since I do not have Soporcel's values. Regarding the debt values, in the absence of market values I am using the net financial debt included in the Balance Sheet. I am assuming that since the difference between the book value of debt and the market value of debt is small and negligible for the purpose of these calculations.

²² Calculation presented on Exhibit 16

²³ Calculation presented on Exhibit 17

Additionally, due to the fact that that Portucel / Soporcel is not a frequent bond issuer and does not have liquid debt securities trading in the market that could be used to estimate the actual cost of debt, the company has developed its own assumptions to estimate the updated risk of Debt based. These assumptions are based on market comparables for Portuguese companies (with more liquid debt securities) and for international companies from the same sector, but there is still some degree of subjectivity in the calculations.

Limitations of time and space prevent me from developing other research topics that could also be interesting, namely the discount rate (WACC) to be used in upcoming years. This subject is interesting, because the Group uses the 10-year Portuguese Government Bond Yield to compute the cost of equity, a component of the WACC. Given the increase of the rate associated to the Portuguese Republic, a much higher WACC is to be expected in the coming years. If this prediction is correct, the present value of the future Cash Flows will decrease, possibly influencing the existence of impairment losses associated with Goodwill.

The analysis of how companies in other sectors estimate the recoverable amount of Goodwill and how often impairment losses are recognized due to – amongst other reasons – downwards revisions of projected cash flows and upwards revisions of the WACC would also be very interesting, as it could shed light on important aspects related to the concepts and uses of Fair Value and Goodwill

4. Conclusion

This dissertation centers on understanding the consequences of the adoption of the Fair Value accounting in the financial statements annually presented by companies. In order to do that, the theoretical section explains the origins and development of the concept of the Fair Value and presents relevant definitions. In this context, I demonstrate the differences between the IFRS and the FASB.

I also point to some reasons to consider the Fair Value as the preferable accounting principle when compared to its alternative, the Historical Cost. The SEC, for example, considers that the Fair Value accounting is useful if there are stringent and precise rules to standardize the use of this concept and to avoid manipulation in companies. Moreover, some authors defend it is only possible for investors to access the relevant financial information they need if the assets and liabilities are valued at Fair Value. There are, however, other researchers and experts that accuse Fair Value accounting of increasing information asymmetry between investors and companies. In this viewpoint, the Fair Value approach renders the financial results presented by companies more subjective, particularly when the calculation of Fair Value is based on Level 3 inputs.

The discussion of the concept of Goodwill closes the section dedicated to the Literature Review, underlining how the adoption of the IFRS 3 and IAS 36 has changed the accounting treatment of this caption. Prior to 2005, Portuguese companies treated Goodwill as an intangible asset with finite useful life, amortized annually and at a constant rate, as required by the POC. The current International standards require companies to calculate Goodwill considering the Fair Value of the consideration paid in the acquisition and the Fair Value of the net assets purchased, and to annually test Goodwill for impairment (instead of amortizing it). Companies are also bound to allocate the Goodwill amount to a CGU. The goal of the impairment tests is to ensure that the amount included in the balance sheet does not exceed the recoverable amount, which should correspond to the Fair Value of the asset being analyzed.

Despite the fact that impairment tests provide timely information and render Goodwill values more transparent and reliable, there is still a subjective aspect in the estimations of the Cash Flows used in the calculation of the *Value in-Use* considered for the evaluation of the Goodwill's recoverable amount.

The second chapter of this essay applies these theoretical insights to the Portucel Soporcel Group, explaining the origins of the Goodwill in this Group as well as the methodology and assumptions employed in the estimation of the recoverable amount of this asset. Within the Group, the Goodwill resulted from the acquisition of Soporcel in 2001, an acquisition that allowed the Group to become one of the biggest players in its sector worldwide. The analysis of the Portucel Soporcel Group led us to conclude that the group follows the requirements established by international standards.

The Group uses the income approach to attain the recoverable amount of Soporcel's Net Assets and of Goodwill. Based on historical figures and existing budgets, the Group estimates FCFF for the following 4 years (and assumes constant Cash Flows for the fifth and subsequent years) and discounts these Cash Flows at an estimated WACC in order to reach the net present value.

According to some authors, the use of Fair Value accounting in company's financial statements will increase the volatility of reported values, which will also incorporate some management assumptions and subjectivity (Manager's Discretion).

However, in the specific situation of Portucel Soporcel Group, a long term approach is followed to project cash flows and to estimate the capital structure, which translate into a smoothening of FCFF (namely of its sales and cost of sales components) and discount rates and consequently of the Present Value / Fair Value, offsetting some volatility that could actually be expected from a company operating in a cyclical industry.

The assumptions used on the calculation of WACC are based on reliable values, extracted from renowned sources such as Reuters, and are complemented by internal cross-checks and validation.

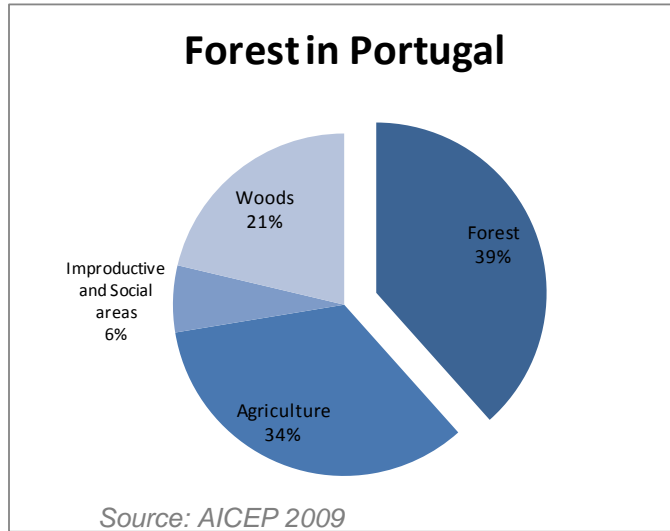
To conclude, we can say that Portucel Soporcel Group strictly follows the accounting rules in the treatment of goodwill and in the calculation of the fair value of the net assets related to the acquisition of Soporcel. The methodology is consistent with the Income approach and market inputs are used in the calculations. There are also some assumptions made by the company, but these are based on reliable sources and tend to be very conservative.

In line with the company's good performance, no impairment losses have been recorded with respect to Soporcel over the last six years (since 2005, when accounting rules changes). It would be very interesting to revisit this case in one or two years time and see on whether the situation Portugal is currently living, with falling GDP and rising

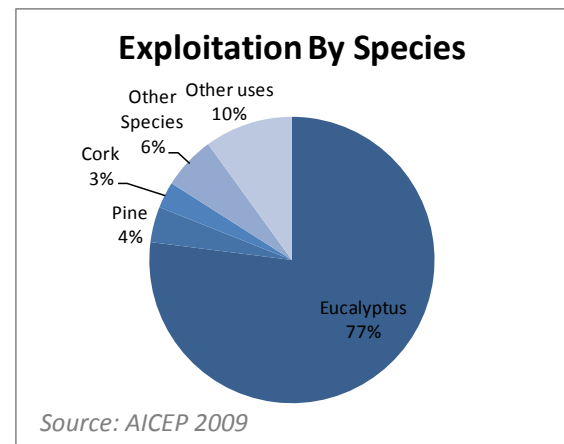
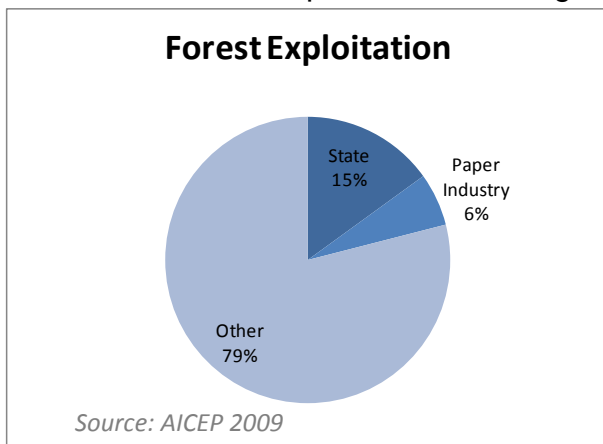
cost of capital, affects the valuation of these assets and to what extent impairment losses are being recognized.

5. Exhibits

1. Forest in Portugal



2. Forest Exploitation in Portugal

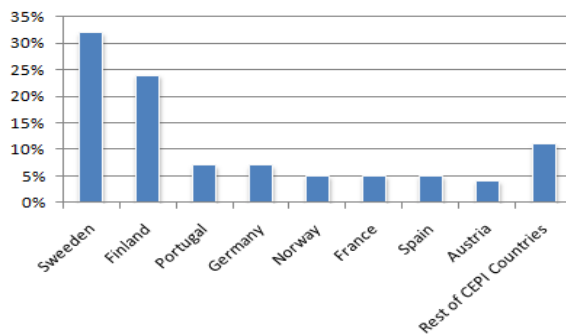


3. Production Cycle



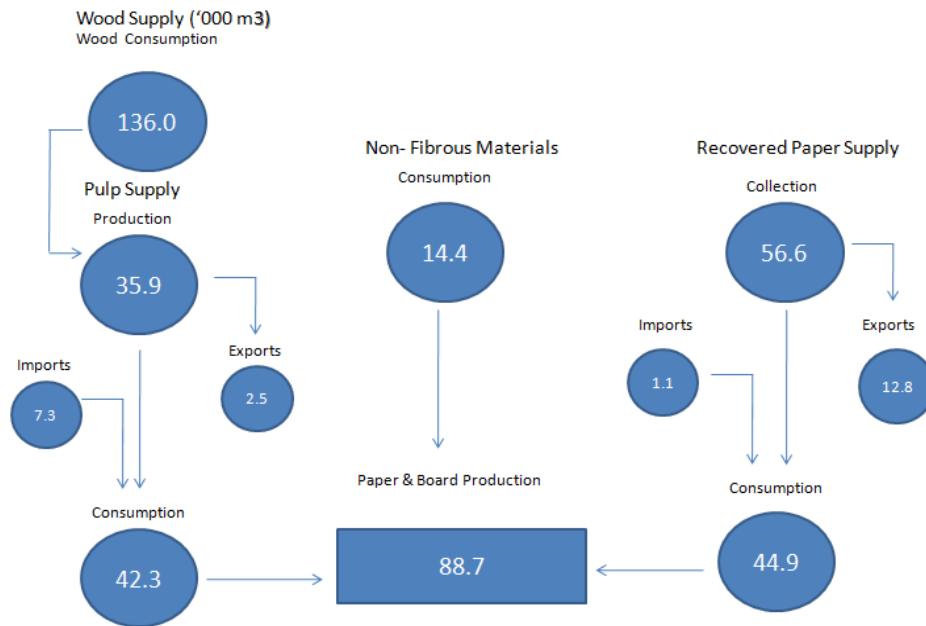
Source: CELPA 2009

4. - Pulp Production in CEPI countries



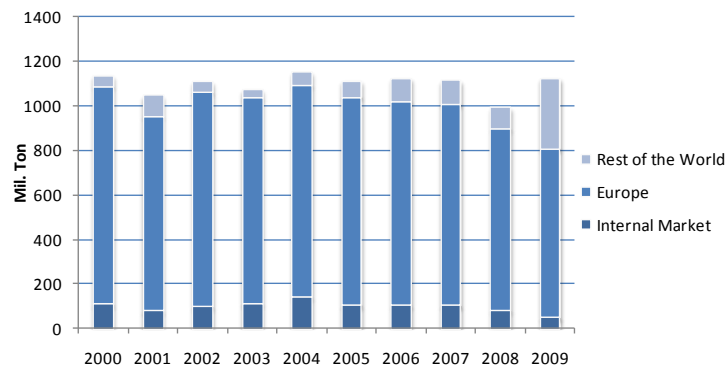
Source: CEPI 2009

5. From Raw Material to Paper in CEPI countries



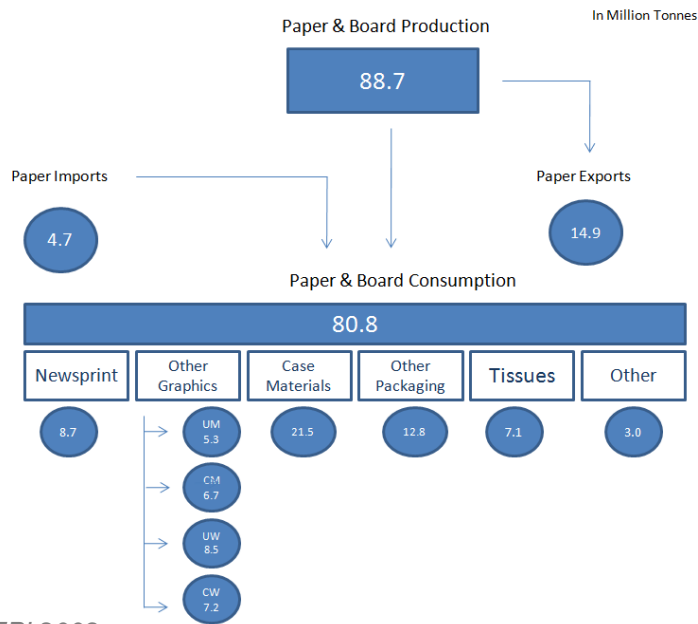
Source: CEPI 2009

6. Portuguese Pulp's sales by region



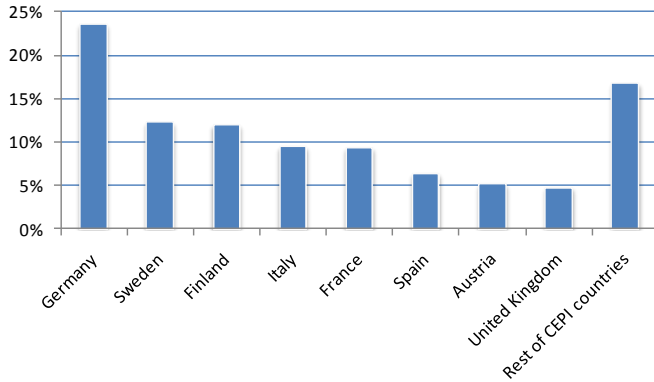
Source: CELPA 2009

7. Paper Production in CEPI countries



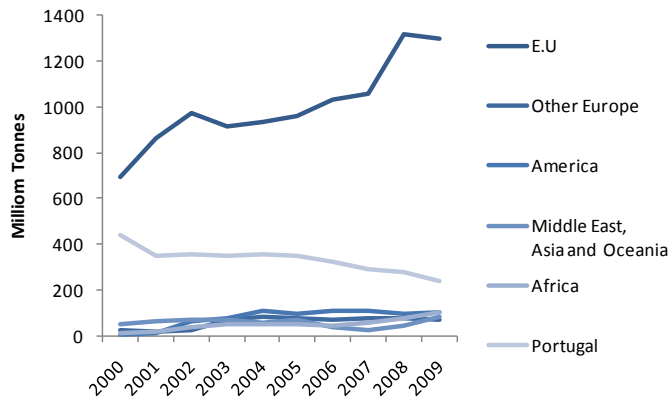
Source: CEPI 2009

8. Paper Production in CEPI Countries



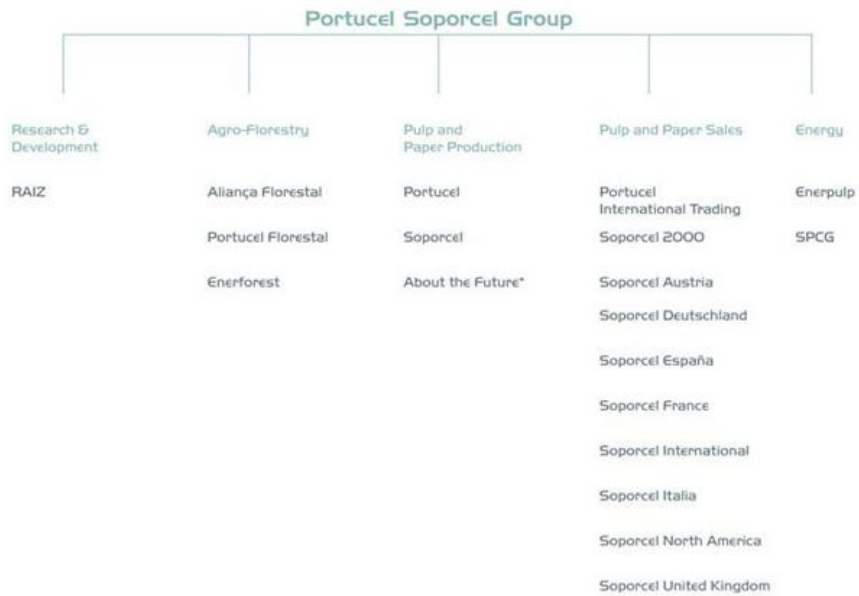
Source: CEPI 2009

9. Portuguese Paper Sales by region



Source: AICEP 2009

10. Portucel Soporcel Organizational Structure



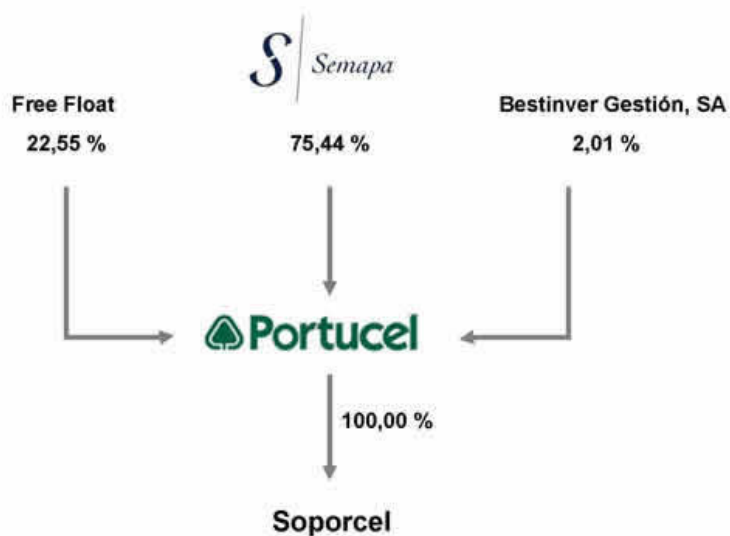
Source: Portucel Soporcel Group

11. Portucel Soporcel Milestones

1953	Start-up of Companhia Portuguesa de Celulose at Cacia, producing raw pine pulp. This project was led by Manuel Santos Mendonça (grandfather of the present Chairman of the Board of Directors, Pedro Queiroz Pereira);
1957	Companhia Portuguesa de Celulose becomes a pioneer worldwide when it starts producing sulphate bleached eucalyptus pulp, through the kraft pulping process;
1964	Start-up of Socel - Sociedade Industrial de Celulose, SARL, at Setúbal, producing eucalyptus bleached pulp;
1965	Incorporation of Inapa, Indústria Nacional de Papéis, SA, viewing the construction of a mill at Setúbal, close to Socel, to produce fine writing and printing papers;
1969	Beginning of paper production by Inapa's PM I, from pulp suspension coming from Socel;
1972	Paper produced from Eucalyptus globulus pulp starts to be sold throughout Europe;
1976	Incorporation of Portucel - Empresa de Celulose e Papel de Portugal EP, a company resulting from the nationalisation process of the cellulose industry;
1980	Start-up of Inapa's PM II, enlarging the range of papers produced;
1984	Start-up of Soporcel - Sociedade Portuguesa de Papel, SA and its Figueira da Foz pulp mill;
1985	Wiggins Teape Group (a leading European paper group) controls 42.8% of Soporcel;
1987	Restructuring of Inapa Group through the creation of Papéis Inapa, SA;
1990	Entry into service of Papéis Inapa, SA's PM III, positioning the company amongst the largest in the sector in the Iberian Peninsula;
1991	Start-up of Soporcel's first paper machine (PM I);
1993/February	Incorporation of Portucel - Empresa de Celulose e Papel de Portugal SGPS, SA, the holding for all the companies included in the Portucel Group;
1993/June	Incorporation of Portucel Industrial - Empresa Produtora de Celulose, SA, to produce and sell eucalyptus bleached pulp, with two mills, respectively at Cacia and Setúbal;
1995	Privatisation of 44.3% of Portucel Industrial; Soporcel's Figueira da Foz mill uses for the first time eucalyptus fibre with PCC (precipitated calcium carbonate), an additive conferring greater opacity, whiteness and homogeneity to paper;
2000	Acquisition of 100% of Papéis Inapa, SA by Portucel Industrial, giving origin to Portucel - Empresa Produtora de Pasta e Papel, SA; Start-up of Soporcel's PM II, an example of the most advanced technology in the sector;
2001	Portucel - Empresa Produtora de Pasta e Papel, SA acquires the entire share capital of Soporcel - Sociedade Portuguesa de Papel, SA, giving origin to the present Portucel Soporcel Group, one of the largest producers of uncoated woodfree papers in Europe;
2003	Beginning of second phase of the privatisation of Portucel, SA;
2004	Semapa Group acquires 67.1% of Portucel, SA, becoming a decisive and structuring driver of the Portuguese economy;
2006/February	The Group announces investment in a new paper mill at Setúbal, which will allow it to assume a leadership position in the European uncoated woodfree paper (UWF) market;
2007/October	Signature of contract for the acquisition of the new paper machine to be installed at the Setúbal mill;
2008/January	Construction of the new paper mill;

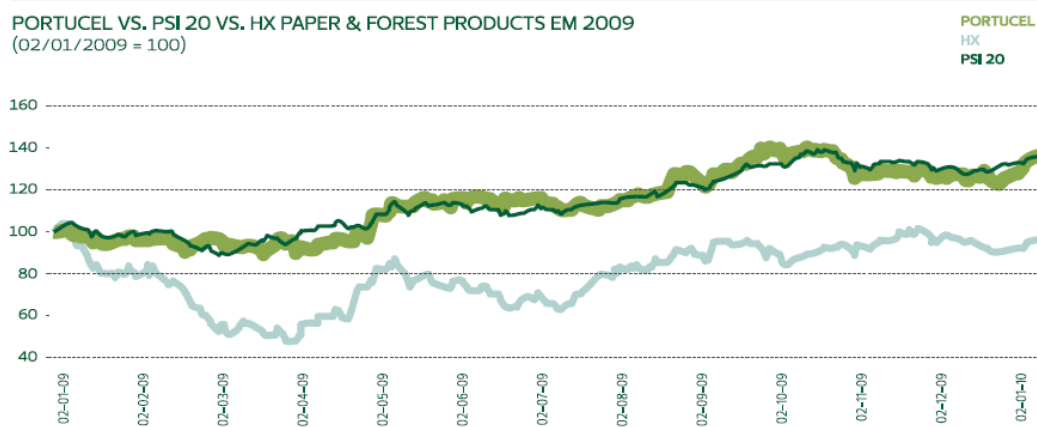
Source: Portucel Soporcel Group

12. Shareholders' structure in 2009



Source: Portucel Soporcel Group

13. Share Price Performance in 2009



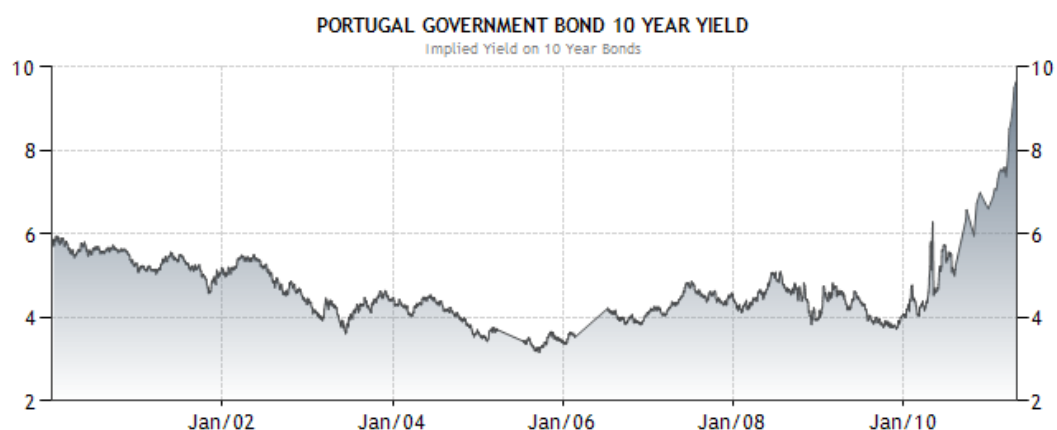
Source: Portucel Soporcel Group

14. 2005 Annual Report Note 40

Amounts in euros	Portuguese GAAP 31/12/04	Reclassifications	Adjustments	IFRS's 31/12/04
ASSETS				
Non-current assets				
Goodwill	359,631,094	-	17,125,290	376,756,384
Other intangible assets	12,872,280	-	(12,087,444)	784,836
Property, plant and equipment	1,232,336,647	(1,723,797)	(15,504,865)	1,215,107,985
Biological assets	118,594,851	33,727,602	(18,297,175)	134,025,278
Investments in associates and joint ventures	3,813,751	-	(2,998,157)	815,594
Deferred tax assets	48,503,793	11,768,894	9,972,421	70,245,108
	1,775,752,416	43,772,699	(21,789,930)	1,797,735,185
Current assets				
Inventories	173,048,107	(28,750,953)	(178,575)	144,118,579
Receivables and other current assets	242,245,980	(22,380,722)	30,000	219,895,258
State and other public entities	58,896,336	(404,001)	-	58,492,335
Cash and cash equivalents	76,263,479	-	283,052	76,546,530
	550,453,902	(51,535,676)	134,477	499,052,702
Total assets	2,326,206,318	(7,762,977)	(21,655,453)	2,296,787,887
EQUITY AND LIABILITIES				
Capital and reserves				
Share capital	767,500,000	-	-	767,500,000
Treasury shares	(53,679)	-	-	(53,679)
Fair value reserve and other reserves	80,187,513	(160,000)	381,298	80,408,811
Retained earnings: prior years	166,087,480	160,000	(56,793,575)	109,453,905
Retained earnings for the year	33,336,943	-	17,946,533	51,283,476
Shareholders' equity	1,047,058,257	-	(38,465,743)	1,008,592,513
Minority interests	-	-	204,875	204,875
Equity	1,047,058,257	-	(38,260,868)	1,008,797,388
Non-current liabilities				
Deferred tax liabilities	77,641,002	(2,130,080)	2,828,464	78,339,386
Retirement benefit obligations	6,322,000	11,768,582	18,434,007	36,524,589
Provisions	19,827,678	(16,159,204)	(2,550,056)	1,118,418
Interest-bearing liabilities	826,993,100	(1,528,572)	42,000	825,506,528
	930,783,780	(8,049,274)	18,754,415	941,488,921
Current liabilities				
Interest-bearing liabilities	120,464,486	1,493,513	-	121,957,999
Payables and other current liabilities	223,778,651	(17,366,420)	(2,149,000)	204,263,231
State and other public entities	4,121,144	16,159,204	-	20,280,348
	348,364,281	286,297	(2,149,000)	346,501,578
Total liabilities	1,279,148,061	(7,762,977)	16,605,415	1,287,990,499
Total equity and liabilities	2,326,206,318	(7,762,977)	(21,655,453)	2,296,787,887

Source: Portucel Soporcel Group

15. Portuguese 10 Year Government Bond – Yield Evolution



Source: tradingeconomics.com

16. Portucel Market Capitalization

<i>in Euros</i>	2005	2006	2007	2008	2009
Outstanding Shares	767,500,000	767,500,000	767,500,000	767,500,000	767,500,000
Share Price as at December 31st	1.85	2.4	2.2	1.549	1.979
Shareholders Equity Value (Market Capitalization)	1,419,875,000	1,842,000,000	1,688,500,000	1,188,857,500	1,518,882,500

Source: *Portucel Soporcel annual reports*

17. Portucel Financial Debt

<i>In Million Euros</i>	2005	2006	2007	2008	2009
Current Interest-bearing liabilities	78.24	10.49	60.68	16.09	420.99
Non-Current Interest-bearing liabilities	747.42	738.49	692.01	686.89	331.31
Cash and Cash Equivalents	89.52	268.89	385.16	222.55	52.55
Net Financial Debt	736.14	480.09	367.53	480.43	699.75

Source: *Portucel Soporcel annual reports*

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