

# **Equity Valuation**

## Cofina, SGPS

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## ABSTRACT

Equity valuation has been highly debated among academics and practitioners. There are many approaches and choosing the right one can be a challenge, making valuation to be considered more an art than a science. This dissertation aims to obtain the price target of Cofina, a Portuguese leading company in media sector. To achieve this goal we had to understand how equity valuation can be conducted and search the best approach to value Cofina. By discussing the main valuation literature and Cofina's characteristics, we chose to apply the Discount Cash-Flow method, using Adjusted Present Value approach. A relative valuation was also performed which revealed to be useful as a complement of the DCF valuation. Our results were compared to Caixa BI Investment Banking. Different methods and assumptions were used but quite similar results were obtained. While we reached a final price target of 0.78, Caixa BI set a price target of 0.70. Consequently, we recommend investors to buy. With this valuation we can conclude that Cofina's shares are undervalued and trading at a discount, since they were listed in 0.62 in 31st January of 2014.

Keywords: valuation, adjusted present value, enterprise value, price target, Cofina, media segment.

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## **1.** INTRODUCTION

The recent financial crisis caused tremendous impacts on Portuguese stock index. Particularly, Cofina as one of the leading media groups in Portugal, listed on PSI 20 was affected. In the last years, with the economic recovering, Cofina is assisting to a turn over period and trying to optimize functional structures and control costs to reinforce the profitability of the existent assets.

Valuation is considered an important issue for strategic decisions in a company and to provide correct advises to investors. The motivation to select this company as an object study is threefold. The ability of the company to overcome economical difficulties due to financial crises is the primary reason. Also, being in the era of information, the media sector has a crucial role in society that we live in. Finally, the leading position in segment of newspapers, magazines and more recently TV makes it very interesting to analyze and value this company.

The main purpose and contribution of this dissertation is to make an independent valuation providing a recommendation to investors. In order to achieve this goal, a hybrid combination of two valuation methods was performed. Firstly, due to its richness, robustness and used by a considerable number of researchers, we choose to apply the Discount Cash Flows (DCF) model with an Adjusted Present Value (APV) approach, selected because Cofina's unstable capital structure. Secondly, a peer-group analysis was conducted to complement the study. Finally, we compare our valuation model to Caixa BI research note.

This work can contribute as an instrument to managers and investors and a way to assess the value in order to justify future investments strategies. Nevertheless this study can have some limitations. This type of analysis can be defined based on subjective assumptions, which can lead to biased results. Also, the uncertainty of the actual market and some constraints in getting information makes it very difficult to make an accurate valuation.

The structure of the dissertation is organized as follows. In the next section, to support our study we conducted a literature review, to understand what are the basilar concepts of equity valuation and the underlined methods that can be used to realize this analysis. Next, to have a background of the study object, a company and industry analysis was made. In section 3, several assumptions were defined based on theoretical foundation of equity valuation and the company specificities. In section 4, we analyzed the results obtained concerning the DCF method and assumptions defined. Section 5 presents a peer group analysis. After that, we are

in conditions to compare our results to a well-established investment bank, Caixa BI. The last section we conclude analyzing the findings of this work under the scope of company valuation.

## **2. LITERATURE REVIEW**

## 2.1. Valuation

According to Damodaran (2006), "valuation can be considered the heart of finance". It can be used in corporate finance, when we make a decision to make an investment, change financing or dividend policies in order to increase firm value. In portfolio management, in order to take advantages on arbitrage opportunities, we try to find firms that are undervalued. Moreover, when studying market efficiency, we analyze firm's value and measure if they deviate from market prices and how long they take to revert to normal.

Nowadays, value should be measured to support decision making. The success of a manager's financial decision when investing and managing resources, whether the decision is to build a new factory, release a new product, enter a new market segment, or even invest in information technology, depends on his or her ability to estimate and identify the sources of value in those decisions. Thus, a company's overall performance depends on those resource allocations (Luehrman 1997). Koller et al., (2010) also acknowledged that the ability to manage value is essential to develop business strategies in order to gain competitive advantage and to create value to shareholders. Furthermore, it is also crucial to determine value, since any investment decision implies an opportunity cost (e.g. the cost of not investing in an alternative solution).

Accordingly, the key in financing operations is to understand the value of those operations, "what is worth?" (Luehrman 1997). It is possible to value any asset, but for each of them we have to assume different valuations methods and make new assumptions, since they may have their own characteristics (Damodaran 2002). As Young et al., (1999) stated the problem is not that there are few valuation methods, it is that there are too many and we are reaching the point of "valuation overload". Thus, choosing the most appropriate valuation method can be a real challenge.

However, despite of the numerous existing valuation methods, valuation is not an exact science, but instead an opinion of the valuator who is performing it (Fernandez 2013). In fact, the method that we choose may be quantitative, but the inputs can be defined based on subjective assumptions. Additionally, the valuation outcome obtained could be affected by the bias that we bring into the analysis (Damodaran 2002).

In the next section, due to the subjectivity of the value measurement we will expose and compare different valuation methods.

## 2.2. Valuation Methods

As referred above, there are several valuation methods and choosing the right one can be a real challenge. The choice will depend on the nature of the situation that we intend to value. Moreover there is no method that is best suitable for each situation, we can choose simpler or more complex ones, and some will need more data or provide more information insights. Additionally, companies as well as the industry sector may have their own characteristics that may require different valuation methodologies.

Although, these models can have very different assumptions about the principles that determine value, they share some common characteristics and can be organized through a wider classification (Damodaran 2006).

Grounded on academic literature (Damodaran 2002; Fernández 2013; Young et al., 1999), we have segmented the valuation methods in four main categories: relative valuation, assetbased, discounted cash flow (DCF) and contingent claim valuation. Hence, we can provide a broader picture of the valuation frameworks that is summarized in the following table:

Main valuation methods					
	Price to Earnings Ratio (PER)				
	Price to Book Value (PBV)				
Relative or multiples	Price to Cash Flow (PCF)				
	Enterprise Value to EBITDA Ratio				
	EV to Sales				
	Liquidation				
Asset-based	Substantial				
	Book value based				
	Free Cash Flow to the Firm (FCFF)				
	Free Cash Flow to the Equity (FCFE)				
Discounted Cash Flow	Adjusted Present Value (APV)				
	Economic Value Added (EVA)				
	Dividend Model				
Contingent claim	Black & Scholes				

Table 1 - Main valuation methods (source adapted from: Damodaran 2006; Fernández 2013; Young et al. 1999)

In relative valuation, the value of the firm can be estimated quickly and easily, without making numerous assumptions. For that we have to find in the market, firms with similar

characteristics, often called the peer group, and compute value by using a set of multiples based on cash flows, sales, profits, or book-value.

In the context of asset-based valuation, firm's value can be estimated through its balance sheets. So values that do not appear in the accounting statements - such as firm's future cash flows or industry's macroeconomic factors - are not taken into consideration. Moreover, the book value almost never matches the market value (Fernández, 2013). Examples of application are related with cases of bankruptcy or liquidation, which is not the case at stake.

In discounted cash flow methods, a firm's value is estimated by discounting its expected future cash flows with a rate that reflects the business risk and growth expectations. This model is considered by Fernández (2013) as the proper valuation method to use, since detailed assumptions and careful forecasts are made for each of the firm's assets that are being valued. Additionally, Damodaran (2006) stated that this approach relies on a rich theoretical foundation used by most researchers. Thus, a good valuation should be based on Discounted Cash Flows methods.

Last but not least, the contingent claim models are used to value assets which have similar characteristics to options and are dependent of future events. These models can be estimated with option pricing models (e.g. Black and Scholes). For the purpose of this dissertation, due to the characteristics of this approach we considered it inappropriate for the present analysis.

Despite these different valuation methods Young et al., (1999) defend that "virtually every popular valuation approach is simply a different way of expressing the same underlying model". Their research has based in mathematical studies comparing methods like Dividend Discount Model, Free Cash Flow to the Firm, Dynamic ROE and Economic Value Added, reaching the conclusion that the methods could be mathematically equivalent and the final value could be the same, as long as the assumptions made remain constant. Fernández (2013) also shows in his research the equivalence between ten methods. The author argues that the result is logical, as the methods considered in the study analyzed the same situation based on the same set of assumptions. Moreover, Ruback (2002) postulates that the valuation technique choice could be influenced by the characteristics of the company being valued, as some models could be easier to apply and with fewer flaws.

As a consequence, since the objective of this dissertation is not to give an extensive explanation of all the existing valuation methods, in the next chapter we intend to focus on the main methods applicable in valuing listed companies, especially in those that are going to be used in Cofina's valuation: Discounted cash flow and relative valuation.

## 2.3. Relative Valuation

In relative valuation, the value is estimated by comparing the firm under analysis to other similar firms. In a general way when someone wants to sell a house they determined the value by comparing how much was paid for similar houses in the neighborhood. The same can happen in the stock market when a shareholder decides the value of his stocks by comparing it with similar ones.

Lie and Lie (2002) asserts that to estimate a firm's value, this method requires computing multiples for a group of comparable firms and then estimate value based on those benchmark multiples. Accordingly, this method has two basic steps to determine value. Firstly, we need do identify comparable firms, often called the peer group. This task can be very challenging and demanding. Generally, in order to minimize estimation errors, comparables of the same industry must be chosen (Lie and Lie 2002; Alford 1992). However, this choice must take in consideration peers with similar returns on invested capital (ROIC) and growth expectations (Goedhart et al., 2005). Secondly, choose the right multiple to use. As illustrated in Graphic 1 bellow the most commonly used multiples are the Price-Earnings Ratio (PER) and Enterprise Value to EBTIDA (EV/EBTIDA). Goedhart et al., (2005) argues that in order to apply multiples properly the practitioners should use forward-looking multiples and enterprise-value multiples. According to Fernández (2013), the most commonly use multiples in the media sector (the industry of Cofina) are PER relative and EV/EBITDA.

All in all, value is estimated by multiplying the average multiple of the comparable firms by a relevant firm value, depending of the multiple used (e.g., earnings when PER is used or EBITDA when EV/EBTIDA).

Often, researchers and analysts choose this method for valuation purposes. Damodaran (2002) notes that 90% of equity research's and 50% of acquisitions valuations use relative valuations and Fernández (2013) showed on is research that Morgan Stanley analysts use these type of method more often compared to other methods like the DCF (Graphic 1). The reason behind these could be due to its simplicity, with fewer assumptions compared to the other methods, which could be easily explained to shareholders or clients. Additionally, since is based on others firms it can reflect the current market reality, which in turn, helps managers to understand why their multiples differ from the others. Finally, it can also create value by giving insights of the market key factors (Goedhart et al., 2005).



Graphic 1 - Most widely used valuation methods (Source: Morgan Stanley Dean Witter)

However, these advantages can also mislead. When using comparable firms we often overlook the fact that companies, even in the same industry, can have different characteristics in variables like growth rates, ROIC, or capital structures (Goedhart el al, 2005). Damoradan (2002) also stated that multiples valuation is susceptible to manipulation since there is a lack of transparency in the assumption made and it can also lead to undervalue or overvalue valuation results, as it is affected by the market trends. Additionally, we can observe inconsistent final results by choosing different comparable firms or multiples. All in all, a valuation that only uses multiples could be controversial, as it can lead to wide dispersed results (Fernández 2013).

Despite this weakness, some researchers (Fernández 2013; Goedhart el al, 2005) defend that relative valuation can be used as a complement of the discounted cash flow method. By using a relative valuation at a later stage, it can help not only to adjust and justify some of the underlying assumptions, but also can help to test the valuation final result.

## 2.4. Discounted cash flow approach

Discounted cash flow method is based on a firm's intrinsic value. Meaning that, it relies on an exhaustive and cautious forecast, for each period, of each financial caption related with the generation of a firm's cash flows (Fernández 2013). After the forecast, firm's value is estimated by discounting its expected future cash flows with a rate that reflects the business risk and

growth expectations. Accordingly, this method is dependent on three variables: cash flow generating capacity, growth and risk (Damodaran 2006).

Due to the fact that this method needs a more detailed and careful analysis, it is regularly claimed by researchers and analyst as the best practice for valuation purposes (Luehrman1997), being generally considered as the only conceptually correct valuation method (Fernández 2013).

Notwithstanding, it should be noted that the DCF approach, like in the relative valuation, is susceptible to manipulation since the assumptions may be influenced by analyst bias and a simple adjustments to the model can cause a huge impact on the final result.

As showed above (Table 1), there are many variants of the DCF methodology, since illustrating all of them falls outside the scope of this Dissertation and for simplification's sake, the next section will be focused on Free Cash Flow to the Firm and Adjusted Present Value.

#### 2.4.1. Free Cash Flow to the Firm

According to Froot and Kester (1995) and Damodaran (2006) the Free Cash Flow to the Firm (FCFF) model is the most commonly used valuation approach among practitioners. This method pretends to value a firm's entire business (equity and debt). Therefore, the value of a firm is estimated by discounting the expected free cash flow to the firm at the weighted average cost of capital (WACC).

[1] Enterprise Value = 
$$\sum_{t=1}^{t=n} \frac{\text{FCFF}_t}{(1 + \text{WACC})^t}$$

Where the FCFF stands for the amount of cash generated from the firm's operations deducted from all operational expenses, taxes and reinvestments needs (e.g., changes in net working capital and capital expenditures). Moreover, it is an important measure to debtholders and equityholders as it can express the cash available, as well as the well-being and the firm's profitability. The FCFF can be estimated as follows:

[2] FCFF = EBIT(1 - T) + Depreciation – Capex –  $\Delta$ Net Working Capital

After measuring the FCFF the next step is to determine the rate for which the cash flows should be discounted. Since the FCFF approach pretends to value the entire firm, the discount rate has to take into consideration both of the required return rate of the equityholders and debtholders, weighted to the extent to which the company is financed (Fernandez 2013). Thus,

the WACC is estimated by weighting the cost of equity  $(k_e)$  and the cost of debt  $(k_d)$  according to the firm's capital structure:

[3] WACC = 
$$k_e * \frac{E}{D+E} + k_d * \frac{D}{D+E} * (1 - T)$$

Where D stands for debt and E stands for equity, both measured using market values. The equation also considers the marginal tax rate (T), which is the rate at which the last Euro of income is taxed. Accordingly, it is implicit in the formula both the tax benefits of debt and the expected bankruptcy cost.

The main challenge in WACC computation could be the capital structure. This approach is most suitable and accurate for companies with a stable capital structure (Koller et al. 2010). However, in some cases it could be unrealistic to consider that the capital structure remains unchanged in the forecast period or even in perpetuity. Although, it is possible to use WACC in these situations, adjusting the rate every year, the process is very complex and demanding. In such cases, Koller et al. (2010) recommends to use the adjusted present value (APV) approach.

#### 2.4.2. Adjusted Present Value

The adjusted present value (APV) was first introduced by Myers (1974). In this method firm's value is achieved by computing the unlevered value (i.e., value of the firm with no debt), and then add the side effects of debt financing separately. Generally, when a company increases leverage through debt financing it generates tax shields (i.e., interest expenses are tax deductible) and also increases the bankruptcy risk (Damodaran 2006).

Accordingly, one of the main differences between the APV approach and the WACC approach is the fact that, when measuring the value of the operating assets the discount rate does not take in consideration the debt financing effects. As a result, the benefits and costs of debt financing are measured separately (Damodaran 2006).

Under this approach, the enterprise value will be the sum of the unlevered value with the side effects of debt and can be estimated as follows:

**[4]** Enterprise Value = Vu + PV Tax Shields + PV Bankruptcy costs \* P(D)

The unlevered value (Vu) is estimated with the same expected cash flow used in the WACC approach, the FCFF. In what regards the discount rate to apply, since the model pretends to value the firm as if it had no debt, the expected free cash flows are discounted through the unlevered cost of equity ( $k_u$ ).

$$[5] Vu = \sum_{t=1}^{t=n} \frac{FCFF_t}{(1+k_u)^t}$$

The tax shields are a controversial issue, since the academics diverge in the discount rate that should be used. Myres (1974) argues that, under the scenario of constant debt level, debt and tax savings are perfectly correlated, which implies that they have the same risk. Thus tax shields should be discounted at the cost of debt ( $k_d$ ). Luehrman (1997) refers that the cost of debt is the most common approach and the best practice. However, he argues that tax shields are more uncertain, so upward adjustment to the discount rate should be made.

On the other hand, Fernandez (2004) states that tax savings should be calculated as the difference between the levered and unlevered firm value and not by the present value of tax shields related with interest. Cooper and Nyborg (2006) showed in his research that Fernandez is not correct and the value of tax shields is the present value of the tax savings from interest, discounted at the cost of debt.

[6] PV Tax Shields = 
$$\sum_{t=1}^{t=n} \frac{D * k_d * T}{(1+k_d)^t}$$

Simply stated the expected bankruptcy cost is the difference between the firm value when is normally operating and the firm's value in a financial distress situation, multiplied by the probability of default. Thus, in order to estimate these costs, two parameters are required, the bankruptcy costs as a percentage of the firm value (%CFD) and the probability of default [P(D)].

[7] PV Bankruptcy costs = 
$$\sum_{t=1}^{t=n} \frac{\% \text{CFD}_t * \text{Vu}_t}{[1 + k_d + P(D)]^t}$$

The bankruptcy costs can be direct costs, such as court-related fees, and indirect costs, such as the loss of customers and suppliers (Koller et al., 2010). Damodaran (2006) asserts that the bankruptcy costs percentage relative to the firm value is estimated based on firm's bankruptcies research. In Korteweg (2007) study the bankruptcy costs on average can range from 12% to 28% of the firm value. Moreover, Andrade and Kaplan (1998) estimated that the preferred percentage should be 10% and a more conservative percentage should not exceed 23% of the firm value.

As for the probability of default it can also be estimated through default studies. For each level of debt a bond rating is associated and then use default studies to determine the default rate associated to each rating.

#### 2.4.3. Cost of capital estimation

After illustrating some of the most common approaches used in the DCF valuation method it is also crucial to explain the cost of capital estimation. This concept corresponds to the "opportunity cost that investors face for investing their funds in one particular business instead of others with similar risk". It is also important to mention that in order to be consistent it must include all investing sources, namely debt and equity (Koller et al., 2010).

For simplification's sake this section will not be focused on the academic discussion, instead it will be focused on the best practice for implementation.

#### 2.4.3.1. Cost of equity

Cost of equity is the return rate that an investor requires to compensate for the risk in investing in the company's assets. This rate is often used in DCF models as the cash flow discount rate.

The most common and accepted model among practitioners to determine the cost of equity is through the Capital Asset Pricing Model (CAPM) (Damodaran 2002). Despite some disagreement between academics, so far, no practical alternative has emerged (Koller et al. 2010). Brotherson et al. (2013) also postulate that currently CAPM is still the preferred model to estimate the cost of equity. Although, they note that when implementing the model there is some divergences in the components choice, namely the market risk premium.

The CAPM assumes that the expected rate of return on an asset equals the risk-free rate ( $r_f$ ) plus the asset's beta ( $\beta_i$ ) multiplied by the market risk premium ( $r_m$ - $r_f$ ):

**[8]** 
$$E(r_i) = r_f + \beta_i(r_m - r_f)$$

In order to identify the "best practice" in the cost of capital estimation Brotherson et al. (2013) made a survey with leading corporations and financial advisors. In their research they believed that the "best current practice" in CAPM estimation is the following:

i) The appropriate risk free rate should be based on government treasury bonds and the maturity should match the valuation explicit period

ii) Betas should be picked from published sources and further judgment should be considered when the publisher's beta diverge (e.g., benchmark beta with data from comparable companies)

iii) The market risk premium is the most controversy component. The average risk premium used by the respondents is about 6,5%, varying from 4% to 9%.

In addition, Damodaran (2013) postulates that an additional country risk premium should be added to the market risk premium, reflecting the extra risk in that specific country. The most straightforward and common method to estimate the country risk premium is to use the default spreads associated to the country's rating (Damodaran 2013). Thus, the market risk premium is given by the following formula:

**[9]** Market Risk Premium = Base Premium for Mature Equity Market + Country Risk Premium

#### 2.4.3.2. Cost of debt

As for the cost of debt estimation when a firm's debt is publicly traded the bond's yield to maturity should be calculated and used as reference. On the other hand, in cases where the debt is not often traded the firm's debt rating should be used to estimate the cost of debt (Koller et al. 2010). Damodaran (2002) besides considering both ways explained before, he also suggests the use of a firm's recent borrowing history to estimate the cost of debt. By doing this we can perceive the type of default spreads the firm is paying.

## **3.** INDUSTRY ANALYSIS

## 3.1. Macroeconomic environment

After being affected by a global financial crisis, Portugal economy today is gradually recovering. With the positive growth rates of GDP and employment, the economy appears to have turned the corner in the second half of 2013. In 2014 and 2015 it is expected that economy continue to recover. Still, the Portuguese economic recovery remains vulnerable to external risks and its high private sector indebtedness (European Commission 2014).

The economic indicators for the last quarter of 2013 demonstrate that we are assisting to a stabilization of the economic recovery. The real GDP increased by 0.2% in the third quarter of 2013 comparing with the previous quarter. These positive developments can be explained by an increase of goods and services exports as well a strong domestic demand (specifically in private consumptions and gross fixed investment) comparing with the previous year (Bank of Portugal 2013). With the restructuring of the economy still in progress, future projections indicate growth rates in GDP of 0.8% in 2014 and 1.5% in 2015 (European Commission 2014). In 2014 and 2015, Portuguese economy will tend to be closer to the current projections for the euro area. However, a set of structural obstacles will continue to limit its potential growth in the near future (Bank of Portugal 2013).

The confidence surveys from European Commission reinforce the idea that Portugal is in recovery. In matter of consumer confidence, although it is still below the historical average (-37.9), comparing the second quarter of 2013 with the previous quarter the average moved from -55 to -53.8 (European Commission 2014).

Also, the labor market situation is observing positive improvements. The total employment increased 0.2% in the last quarter of 2013, comparing with the previous quarter (European Commission 2014). Although the unemployment rate is expected to stay above 16% in 2015, the trend will be to register a gradual decrease in the future (OECD 2013).

In what concerns prices, after a significant decline in 2013 a slight rise in inflation is expect in 2014-2015. The decrease in inflation in 2013 can be majorly explained by the impact of fiscal consolidation policies implemented in 2012, such indirect taxation and of the price of some goods and services (Bank of Portugal 2013). The Harmonized Index of Consumer Prices (HICP) deceleration is observed in year-on-year terms across most of its main components.

Regarding investments, the relations of Portugal with financial markets remain vulnerable due to several uncertainties caused by the financial market sentiment (Bank of Portugal 2013). Also, in banking industry, Portugal is exposed to high level credit risk. The non performing loans are increasing particularly in corporate sector. Consequently, banks are reducing their credit products and reinforcing their capital buffers (OECD 2013).

#### 3.2. Media industry

The media industry is constituted by digital and non digital media. Although non digital is considered dominant in the industry, in the next years the major growth will be on digital media (Graphic 2). In many markets, the entertainment and media (E&M) industry escape from the recession and is in a revolutionary change, with ongoing consumer migration to digital (PwC 2011). It's the golden age of the empowered consumer. According to PwC Global E&M Outlook 2013, the sector needs to constantly innovate in products and services to meet consumer needs. This study analyzed the E&M segments such as: television, internet, advertising, cinema /video and publishing (newspapers and magazines).

#### 3.2.1. Global Market

The global economy started to show recovery signs in 2010 with E&M consumer spending rising to 4.6%, after the 2.4% decrease in 2009 (Graphic 2). Also the global nominal GDP increased to 6.1% compared with a 1.7% in 2009. The introduction of digital products and services (e.g., electronic reading) provided a boost to E&M digital spending (PwC 2011). In the next year, the digital business is expected to continue to expand opportunities for new services, business models and consumer relationships (Graphic 2).



Graphic 2 - Digital consumer spending drives global growth (Source: PwC 2013; Dissertation analysis)

The global market of magazines has been affected by the economical crisis. Comparing 2008 with a global market of 71.3 billion euros, 2012 registered a decrease of 2.8% annually. Although, the circulation revenues were severely affected by the economical crisis, the worst impact was observed in advertising revenues.

Nowadays, several countries are still assisting to a slow growth, but in the next five year the magazine sector is expected to recover. An increase of 0.3% annually is expected which represents 64.8 million euros in 2017. Hence, the growth of digital circulation will be determinant to this slight recovery and more visible in short term. In long term with the deceleration of mobile wave and broadband penetration it is expected to diminish the effect on this industry (PwC 2013). As we can observed in Graphic 3, the magazines are changing the way they are conceived. If in 2012 only 2% of magazines were digital, in 2017 it is expected that this representation increases 11%.



Graphic 3 - Percentage of consumer spending in magazines (Source: PwC 2013; Dissertation analysis)

Regarding the newspapers segment a global reading culture is increasing and today more than 550 million of newspapers are daily distributed. A future trend will be a paywall digital, which means, charging readers for online content. The decline of advertising revenues is explained by the online alternatives. From 2008 to 2012 the advertising revenues decreased from 85.54 to 66.92 billion euros. This decreasing trend will still be verified in the future with an annual decrease of 0.8% annual. However, the digital newspapers will increase in the same period by 10.8% annually.

Observing Graphic 4 we can conclude that the trend is quite similar to magazines. While in 2012, only 1% of digital newspapers exist, in 2017 this new product will have 6% weight in the segment of newspapers.



Graphic 4 - Percentage of consumer spending in magazines (Source: PwC 2013; Dissertation analysis)

Notwithstanding, according to the MarketLine<sup>1</sup> study on the Publishing sector in Europe, which includes newspaper, magazines and books, the forecast is slightly different. In this report the compound annual growth rate for the industry until 2016 is predicted to be 1.6%. Additionally, the study states that "the success of the publishing market, wholly dependent on consumer spending, is strongly related to measurable factors such as economic growth and employment levels and these factors will also affect competition in this market".

In what concerns television, the subscription-based television services are an actual attraction and until 2017 it is expected a 3.8% annual growth. The competition between the different subscription-based platforms (cable, satellite and IP TV) will significantly vary across regions and is highly dependent on infrastructures and geographical factors. Interestingly, this was one of the segments that were less affected by crisis. Although the advertising revenues have

<sup>&</sup>lt;sup>1</sup> MarketLine Industry Profile (2012), Publishing in Europe

assisted to a significant decrease of 8% in 2012, the TV advertising will also grow with an annual average rate of 5% until 2017 (PwC 2013).

#### **3.2.2.** Portuguese Market

The traditional media is facing several challenges related not only with the economical crisis but also with digital era and subsequent migration. Consequently, this market is in a profound change in the way they create revenues and execute their business models. Not only the competition is now broader but consumer is also more informed<sup>2</sup>.

The newspaper segment was also affected by financial crisis with a reduction of the circulation and a significantly decrease of advertising revenues from 183.53 million euros to 124.43 million euros in 2012. Newspapers' companies are facing an adverse economical environment. In 2012, "Público" and "Agência Lusa" were subjected to significant cuts. The news agencies need to be agile to generate revenues through merchandising or contract publishing. In the future, although the physical newspaper circulation will decrease the digital newspaper will continue to grow in Portugal (Graphic 5).



Graphic 5 - Newspaper circulation in Portugal (Source: PwC 2013; Dissertation analysis)

Hence, the future of digital newspapers is inevitable. This segment needs to be digitalized in order to survive to the evolution of information era. Also, the expansion to other markets that use Portuguese language such as Brazil constitutes a future trend (PwC 2013).

<sup>&</sup>lt;sup>2</sup> ERC report (2008), Media revenues in Portugal, Deloitte

Regarding the magazine sector, after a fast recovery from 2009 to 2010, a decreasing trend emerged in this sector. In the future, it is expected that the magazine's circulation will decrease and begin to recover in 2016 reaching 158 million euros in 2017 (Graphic 6).



Graphic 6 - Magazines circulation in Portugal (Source: PwC 2013; Dissertation analysis)

The magazine market was considered to value 301.7 million euros in 2012. In the future, more specifically in 2017, this market will decrease to 284.63 million euros, which represent a 1.2% decrease. Several reasons can be behind this future projection. First, digital revenues do not cover the decrease of print magazines. In 2012, the digital revenues represent only 2%. In 2017 it is expected to assume a superior role with 10%. Second, advertising expenses will reduce significantly until 2017 (Graphic 7). Finally the stagnation of advertising is explained by the relocation of investments to online advertising and social communities (e.g., Facebook) (PwC 2013).



Graphic 7 - Advertising expenses in Portugal (Source: PwC 2013; Dissertation analysis)

In 2012, the TV subscription-based service reached a penetration rate of 60% with 3.1 million subscriptions. This is explained by the recent growth of the satellite services and IP TV of

Portugal Telecom (PT). On the other hand, ZON Optimus has been losing subscriptions in cable and satellite platforms. This market is composed by three operators: PT and ZON Optimus (recently merged in 2013) and with a lower representation, Vodafone. In 2017 it is expected an increase of subscriptions to 3.8 million and a revenue volume of 521.7 million euros (Pwc 2013).

In Portugal, the TV advertising market as one of the smallest in Europe has been significantly affected by the economical situation and its recovery could be in line with the economical evolution in the future. The advertising revenues volume decrease 13% in 2009. After a marginal recover in 2010 it continued to decrease in the subsequent two years. In 2013, it is expected the worst performance with 237.97 million euros in advertising revenues. After 2014, it is expected an annual growth of 1.7% until reach 262.86 million euros in 2017 (PwC 2013).

#### 3.2.3. Challenges and opportunities for the future

In the era of information society, agility and knowledge about the consumer constitute the main pillars to stay competitive in this industry. With the proliferation of Internet and a tremendous growth of intelligent devices the future trend is to become digital. Digital technologies are progressively increasing their influence across the industry and that rapid change in technologies and consumer behaviors will continue across all E&M segments (PwC 2013).

Also, the role of the E&M industry is changing. In the past the business model allowed to control every step since the content creation to distribution. Today is not about contents but about digital experiences in different distribution channels. Consumers want to access information through their mobile phones, tablets or computers. They decide where, when and how then want to see their contents. According to PwC Outlook 2013-2017, the consumer demand for E&M is empowered by the adoption of internet connected devices and it is expect to grow in line to GDP global trend during the period of 2013-2017 (PwC 2013).

To achieve competitive advantage the success in emerging digital environment lies in harnessing three industry wide dynamics: digitalization of contents, business processes and product innovation; demand of E&M products that respond to the needs of empowered consumers; and data-centric approach with the ability to mine and analyze useful information (PwC 2013).

As a final note it is important to refer that, although digital is expanding the traditional media will still have a dominant position in revenues in future.

## 4. COMPANY ANALYSIS

#### 4.1. Cofina overview

Founded in 1995, Cofina SGPS, SA (hereinafter refered as "Cofina" or "Group") is a Portuguese holding company that operates in the media sector, particularly in newspapers and magazines publishing.

Listed on Euronext Lisbon since 1998, Cofina is currently the market leader in the Portuguese press segment and the third largest media company listed in the PSI stock index. Their ambition is to reinforce the competitive position adding value to stakeholders, as well as to have a significant presence in all media areas in Portugal.

To achieve that goal the Group strategy aims to maximize the value of the existing portfolio and continue to growth in all media segments, either through acquisitions or through new releases.

Cofina's main business is the newspaper and magazines publishing. Currently their portfolio includes five newspaper and eight magazines:

• The Newspapers segment includes paid newspapers, either generalists or thematic (like sports and economic) and free newspapers.

Newspaper					
Paid ne	wspaper				
Correio da Manhã	Generalist				
Record	Sports				
Jornal de Negócios	Economy and Business				
Free ne	wspaper				
Metro Generalist					
Destak Generalist					

Table 2 – Newspaper portfolio

• The magazine segment is more diverse and it includes a variety of themes like society, technology, generalist, cars, among others.

Magazines					
Sábado	Generalist				
TV Guia	Television				
Flash	Society				
Máxima	Fashion and trends				
Vogue	Fashion				
GQ	Men magazine				
Automotor	Cars				
Semana Informática	Informatics				

Table 3 – Magazines portfolio

Notwithstanding, with the internet evolution the publishing sector is facing some changes, as an increasing number of readers are abandoning print publications in favor of online content alternatives. Thus, Cofina is also present in the online market, which offers several websites mainly related with the newspapers and magazines portfolio.

Additionally, following the company strategy to be present in all media segments, in March 2013 the company lunched the first television channel, the "CMTV". The channel for now is only available through "Meo", which was been considered the best subscription-based television service in Portugal. According to the company, the channel exceeded the expectations in the first six months of existence, and is already one of the most viewed channels on subscription-based television service. This recent success is expected to have significant impact in the Company revenues in 2013 and in the future.

It is the Group intention to continue to expand in the TV segment. The CEO of Cofina, Paulo Fernandes, said that the television sector represents 75% of the publicity market. Thus, they recently formalized the desire to compete for future contests for free-to-air channels on DTT with the regulatory authority for media ("ERC")<sup>3</sup>.

<sup>&</sup>lt;sup>3</sup> Source: Nobre, A (2013), Cofina quer canal de TV para acabar com "discriminação", Expresso (on-line). Available at: <u>http://expresso.sapo.pt/cofina-quer-canal-de-tv-para-acabar-com-</u> <u>discriminacao=f831959#ixzz2vIrzLxAp</u>

#### 4.1.1. Cofina Group's structure

Nowadays, the Cofina's corporate structure is as follows:



Figure 1 - Cofina Group's structure (Source Cofina report)

The main company is Cofina Media SGPS – the sub-holding company – which is the owner of the subsidiaries of the Group. Among the subsidiaries it is important to highlight the following:

- Presselivre, which is responsible for editing the neswspaper "Correio da Manhã" and the magazine "Sábado"
- Edisport which is responsible for editing the neswspapers "Record" and "Jornal de Negócios"
- Edirevistas which is responsible for editing several magazines
- Metro News which is responsible for editing the neswspapers "Destak" e "Meia-hora"

#### 4.1.2. History

Cofina began its activity as a holding group of several businesses (e.g., pulp and forest, steel and media) in 1995. Ten years later, a division of business segments were made leading to the creation of a new company (Altri), which turns to be responsible by industrial assets. Consequently Cofina was now focused on the media sector.

During the period of 1995 until now, Cofina acquired and release several magazines: "Correio da Manhã" (2000), "TV Guia" (2002), "Sábado" (2004), "Destak" (2006), "Destak São Paulo"

(2007), "Metro" (2009), "Destak Rio de Janeiro" (2009), and "Destak Brasília" (2010). More recently, with its expansion strategy Cofina released a TV channel named "CMTV".

#### 4.1.3. Strategy

Cofina, as leading company in the media sector supports its strategy in two essential vectors: organic and non-organic growth. Yet, with a strong ambitious to attain a competitive position in all media sectors, Cofina has experienced a sustainable development achieved not only by organic growth and non-organic growth through acquisitions.

In what concerns organic growth, Cofina is committed to increase profitability of the existing portfolio by increase the EBITDA. Concretely, Cofina expects to maintain the investments in the oldest business segments (newspapers and magazines) and control the costs in order to optimize the functional structure.

In terms of non-organic growth, Cofina top line strategy is expanding focusing on its recent businesses to increase its size and financial strength. Cofina is positioned on other media business such TV but is also concentrate to reinforce its investments in international natural markets and domestic consolidation.

#### **4.2.** Performance in the stock market

Cofina's stock returned to the Portuguese PSI-20 stock Index in August 2012, after five years in PSI all-share. The share's price of Cofina decreased over 16% between  $31^{st}$  January 2014 and the opening price of the 2012, while the main benchmark of the Portuguese stock market (PSI 20) increased 19% in the same period. Cofina's stocks had traded at a maximum price of 0.77  $\notin$  in January 2012 and at a minimum of 0.30  $\notin$  in June of the same year.

During this period Cofina's stocks were characterized by low liquidity, although with an increasing trend verified in 2013, where the volume of trades increased by 264%, between 2012 and 2013 increased by 264%.





## 5. VALUATION METHODOLOGY

According to what has been described in the literature review and the characteristics of Cofina, the valuation will be measured through two different models: Adjusted Present Value (APV) and relative valuation.

Additionally, the valuation will follow a sum of the parts approach with the valuation of each business units separately (journals and magazines). This task could be a challenge as the information provided by the company sometimes is not segregated by segments. For instance, in the company's report the segregation of the operating expenses is not available by segments, so additional assumptions will be required to perform the sum-of the parts approach.

Even though the WACC approach is the most commonly used by practitioners, the APV approach will be followed mainly due to Cofina's financial structure. During the historic period, the financial structure of the company was not stable and it is not expected that it will be in the future. Since one of the main assumptions of the WACC approach is a stable financial structure and that is not ensured, choosing this technique could lead to inaccurate results. With the APV approach the financial structure is not one of the main drivers, making it more reasonable to use. Besides, it can demonstrate in which parts the company is creating or destroying value.

## 6. VALUATION ASSUMPTIONS

In order to perform the valuation of Cofina one needs to estimate the Free Cash Flows to the Firm (FCFF). Therefore, in this section, we intend to present and justify objectively the assumptions for the main drivers of the FCFF: operating revenues, operating expenses, depreciations, capital expenditures and investments in net working capital. Additionally, the assumptions regarding debt and dividend distribution will be also presented.

## 6.1. Operating revenues

The company's operating revenues will be segregated by segment and will be driven by three types of revenues: circulation of newspapers and magazines, advertising and alternative marketing products.

As illustrated below (Graphic 9), the company's revenues registered a decreasing trend between 2008 and 2012, with a compounded annual growth rate (CAGR) of -5.8%. This trend could be related with the beginning of the 2008 financial crisis, which caused an adverse economic environment surrounding Cofina. Namely the readers who face difficulties with diminishing disposable income and purchasing power, as well as the companies with less spending in advertising caused by the tight budgets.



Graphic 9- Operating revenue (source: Cofina's report and dissertation analysis)

It can also be observed (Graphic 9) that advertising and alternative marketing products revenues show a decreasing trend in values (with a CAGR of -10.3% and -10.6%, respectively). Moreover, the importance of those revenues in the total amount of operating revenues is also decreasing. In 2008 the advertising revenues was 42% of the operating revenue and in 2012 it was only 35%. On the other hand, the circulation revenues, despite the unfavorable economic environment, show an increasing trend both in values and in importance in total operating revenue, with the exception of 2012 that registered a considerable reduction in values around -7.1%.

Accordingly, the tables below illustrate the growth rate projections by segments assumed in this dissertation:

Ne	Newspapers										
Gr	rowth rate projections	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
C	Circulation	-2,00%	0,60%	1,50%	1,80%	1,80%	1,80%	1,80%	2,00%	2,00%	2,00%
A	Advertising	-4,00%	-1,00%	2,00%	1,50%	1,80%	1,80%	1,80%	2,00%	2,00%	2,00%
A	Alternative marketing products	-2,50%	-1,00%	1,50%	1,80%	1,80%	1,80%	1,80%	2,00%	2,00%	2,00%

Table 4 – Newspaper growth projections

Magazines										
Growth rate projections	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Circulation	-3,30%	0,10%	1,00%	1,10%	1,10%	1,10%	1,10%	1,10%	2,00%	2,00%
Advertising	-6,50%	-2,00%	1,50%	1,80%	1,80%	1,80%	1,80%	2,00%	2,00%	2,00%
Alternative marketing products	-4,00%	-1,00%	1,50%	1,80%	1,80%	1,80%	1,80%	2,00%	2,00%	2,00%

Table 5 – Magazines growth projections

Concerning 2013, the assumptions were based on Cofina's reports of the first semester and third trimester of the same year. In the referred reports it is possible to observe that in 2013 the company is still facing some difficulties reflected by the decreasing revenues. As a result, a negative outlook is expected until the year end. Additionally, a brief explanation of each type of revenue will be made in the following sections.

It is important to note that despite the negative outlook for the traditional newspaper and magazines sector, described in the industry analysis, Cofina's revenues will be influenced as well by the positive outlook and the company perspectives of the digital media and television markets.

#### 6.1.1. Circulation

The circulation of newspaper and magazines is one of the main types of revenues of the company, especially in the last few years with the advertising and alternative marketing revenues' decreasing trend.

Overall, a consistent relationship between the circulation revenues and the Portuguese economy can be observed. When the economy is in recession a decrease in revenues is expected (and vice-versa). The newspaper and magazines prices have remained relatively constant among the years. Also, to the best of our knowledge, the company does not have a specific price policy. Therefore, we assumed the variation in circulation revenues is not dependent on prices, but instead depends on consumer purchasing power. The MarketLine (2012) report also asserts that this sector, by being dependent on consumer spending, is strongly related with the economy growth rates. Accordingly, growth rate projections were based on the International Monetary Fund (IMF) forecasts of the real gross domestic product (GDP)<sup>4</sup> (Appendix 1).

Since magazines can be seen as non-essential goods, their demand, especially considering the actual economic crisis context, can be highly influenced by consumer income or purchase power. Hence, their circulation revenues, observed in the projected assumptions, are expected to be lower than newspapers.

#### 6.1.2. Advertising

As previously mentioned, advertising revenues presented a decreasing trend in the historic period. This behavior could be related with the present economic recession. Due to the tight budget policies, companies are willing to spend less in advertising.

Based on the IMF projections, we assumed the consequences of the economic crisis in advertising will remain at least until 2014. After that, with economic recovery, it is expected that advertising revenues will have a similar behavior as the real GDP growth.

#### 6.1.3. Alternative marketing products and others

This component is constituted by cross-selling products used (e.g., fashion accessories, DVD's and others) as a way to attract consumers to buy core products (magazines and newspapers).

<sup>&</sup>lt;sup>4</sup> International Monetary Fund (2013), Portugal: Seventh Review Under the Extended Arrangement and Request for Modification of End-June Performance Criteria, IMF Country Report No. 13/160

Although its representativeness is low and its volatility high, it is a way to slightly increase the sales revenues.

Due to its high volatility, it is quite difficult to forecast the evolution. This volatile behavior is related with marketing policies that are applied according to consumer trends, depending on sales objectives. While circulation and advertising are correlated with real GDP growth, the temporary characteristic of this component turns to create an irregular behavior on the projection. Thus, considering that this type of revenue has a small contribution and representativeness, we also assumed an increase rate projection in line with real GDP growth (Appendix 1).

## 6.2. Operating Expenses

Due to the lack of detailed operating expenses information by segments (newspaper and magazines) in Cofina's annual reports, additional assumptions had to be made in the historical period.

Cofina only provides the operating expenses total amount by segment. In order to estimate the operating expenses by type (i.e., cost of sales, external supplies and services, payroll expenses, provisions and impairment losses and other expenses), a percentage of the total operating expenses was determined.

Subsequently, a similar behavior between the operating revenues and their corresponding expenses was observed. Therefore, a representative proportion between each type of expenses and total revenues was calculated. After that, in the explicit forecast period, the various types of operating expenses were estimated using the operating revenues as reference, multiplied by the average representative proportion referred above.

% in Operating Revenue	Newspaper	Magazines
Cost of sales	14.0%	17.2%
External supplies and services	37.2%	45.5%
Provisions and impairment losses	0.4%	0.5%
Other expenses	0.5%	0.7%

 Table 6 - Operating Expenses explicit period assumptions

Notwithstanding, the payroll expenses were an exception and were estimated otherwise. The estimation was made considering the company's number of workers assigned to each segment and the average cost per worker.

The first step was to find out the number of workers by segments and its trend. Since 2008 Cofina has been reducing the number of workers (with the exception of 2009). This fact could be explained by the closure of publications in 2011 (e.g., "PC Guia" and "Máxima Interiores") and in 2012 (e.g., "Automotor" and "Semana Informática"), motivated by decreasing advertising revenues as well as a lower circulation.

The reduction of workers might be justified as well by the government policies that promote youth employment. These policies support part of the worker's salaries reducing the company costs and since the workers do not have effective contracts, they do not contribute for worker's statistics.

Additionally, employment is positively correlated with the economic environment. Economic indicators show a recessive environment, with the appearance of recovery signs in 2014. For that reason, it was assumed that the number of workers will follow the employment projections trend of IMF (Appendix 1). Graphic 10 illustrate the evolution of Cofina's workers during the historic and explicit period:



Graphic 10 - Historical and estimated average number of workers

Finally, the average cost per worker was achieved by dividing the payroll expenses by the number of Cofina's workers. In the explicit period, the projections will follow the compensation per worker predicted by the IMF<sup>5</sup> (Appendix 1).

<sup>&</sup>lt;sup>5</sup> International Monetary Fund (2014), Portugal: IMF Country Report No. 14/56

## 6.3. Capital expenditures and depreciation

Capital expenditures (capex) are investments made by companies in assets, either to acquire new assets or replace/renew outdated ones. Capex investment decisions are very important as they can compromise the future of the company and in most cases are not reversible. Often the main objective in capex investments decisions is to maintain production, in order to keep the business running, or to expand business through acquisitions.

Due to the fact that the company investment plan is unavailable, further assumptions regarding investments in capex had to be postulated. Firstly, it was assumed that Cofina will continue to invest similarly to what has been done in the past. Secondly, expansion investments are not going to be considered, the investments will be to renew or replace outdated assets to assure competitive advantages, technological development and continuous growth.

Considering the historical information, it was assumed that investments in capex were related to the company's revenues due to the regular trend and correlation between them. While concerning tangible assets, the percentage used was 2% of the total revenues, for the intangible assets the percentage was 0.5%. However, in the two final years of the explicit period, the rates were gradually increased to the same level of the depreciation, meaning that in the terminal period, capex will be offset by depreciation.

Concerning the depreciation, similar assumptions to the capex were considered. Hence, the projections were also based in the company's revenues. Observing the depreciation of tangible and intangible assets, a percentage of 2.1% and 0.4% respectively were assumed.

As a final step, it was necessary to proceed with the distribution of total capex and depreciation by segments. Thus, the assumption took into consideration the average percentage (from 2008 to 2012 period) for capex by segments, made available in Cofina's annual reports<sup>6</sup>. The same reasoning was used for the depreciation.

## 6.4. Net Working Capital

Working capital comprises all current assets minus current liabilities necessary for the business operations. Therefore, Cofina's current assets considered from the computation of the working capital were: inventories, customers, state and other public entities, other current

<sup>&</sup>lt;sup>6</sup> Note 33: Segment information (source: Cofina's consolidated annual reports)

debtors and other current assets. For the current liabilities the accounts considered were: suppliers, state and other public entities, other current creditors and other current liabilities.

In what regards the assumption made, only the main ones are going to be described. The others will be summarized in a table below.

The inventories registered in the companies balance sheets are mostly paper used for printing Cofina's publications. The projections were based on the average days sales of inventory (DSI), computed in the historic period, and then multiplied by the projections for cost of sales (Table 7).

For the customers and suppliers, a similar approach was used. Instead of using the days sales inventory, the projections were estimated based on the days sales outstanding (DSO) and days payable outstanding (DPO) respectively (Table 7).

	Average
Days sales of inventory (DSI)	58
Days sales outstanding (DSO)	29
Operating cycle	86
Days payable outstanding (DPO)	56
Cash conversion cycle (CCC)	31
Table 7 Cash conversion sucle	

Table 7 – Cash conversion cycle

As it was referred above, the summary of the rest of the items considered as working capital are briefly explained below:

Working capital item	Assumption	Value
Current assets		
State and other public entities	Cost of sales + External supplies and services	0,4%
Other current debtors	Operating Revenue	0,6%
Other current assets:		
Newspapers and magazines to invoice	Circulation	8,7%
Operating expenses paid in advance	External supplies and services	0,5%
Charges related to subsequent year editions	Cost of sales	2,6%
Others	Constant	-
Current liabilities		
State and other public entities	Operating Revenue	5,4%
Other current creditors	Constant	-
Other current liabilities:		
Accrued payroll	Payroll expenses	13,5%
Commissions payable	Payroll expenses	4,9%
Rappel	Circulation	2,8%
Supplies and external services	External supplies and services	1,9%
Deferred income from alternative marketing	Alternative marketing products and others	2,5%
Other	Constant	-

Table 8 - Working capital assumptions

Cofina's dividend distribution policy has been changing along the years. In 2006 and 2007 distribution was  $0.035 \in$  per share, with a payout ratio around 38.9% and 35.0%, respectively. However, with the beginning of the financial crisis, due to the negative net income in 2008, the company did not distribute dividends. As of 2009, the distribution has been  $0.01 \in$  per share.



Graphic 11 – Dividend per share and payout ratio (source: Cofina's reports; dissertation analysis)

In the explicit period, it was assumed that the company is still going to distribute dividends to the shareholders. For the first years, since Cofina's results are still recovering from the economic recession, the dividend distribution will continue to be  $0.01 \in$  per share. As of 2017, with net income still increasing, a dividend payout ratio of 30% was assumed.

## 6.6. Debt

According to the historic period, Cofina was financed through a variety of types of debt, namely, bond loans, commercial paper, bank overdrafts and bank loans (short and long term). Additionally, by analyzing the company's financial statements it is possible to see a debt decreasing trend, which may imply Cofina's attempt to decrease its financial leverage (see Graphic 12 below).



Graphic 12 - Historical financial debt (source: Cofina's reports; dissertation analysis)

It is important to stress that this section was very challenging to predict. The projections were achieved through the information provided in the company's report and assumptions taken into consideration.

For the bond loans projections, the recent announcement of Cofina's<sup>7</sup> new bond issuing was assumed. This operation intended to expand the debt maturity profile until 2019, having proceeded with the early repayment of the previous bond. The bond loan reimbursement will be made in three equal installments in 2017, 2018 and 2019.

Concerning the long term bank loans, the projections were based according to the repayments schedule, with maturity in 2016. After the maturity period, it was assumed that Cofina will not contract any more long term bank loans.

Last but not least, the remaining types of debt consider were commercial paper, bank overdrafts and short term bank loans. These three types of loans were used to level the balance sheet, ensuring that total assets equals total liabilities plus total equity.

As a final remark, it is important to test if the debt's book value (N) and the debt's market value is in equilibrium (N=D). A common approach is to see how the company's debt is being quoted in the market, but since Cofina's debt is not listed (bond loan is for private subscribers) a credit rating will be assigned to the company. This way it would be possible to confirm if the Cofina's rating has been changing in the historic period. For the estimation the Damodaran's table<sup>8</sup> (Appendix 3), that relates the interest coverage ratio of a firm to a "synthetic" rating was

<sup>&</sup>lt;sup>7</sup> Cofina's press release from September 27th, 2013

<sup>&</sup>lt;sup>8</sup>Available at Damodaran website

used. As a result one can note that in the last three years the company's rating was stable in A-. Therefore, that means that the company's debt risk is stable and it is expected to remain in the future. Accordingly, it seems reasonable to assume that N=D.

In general terms, as previously referred, Cofina will assist to an unleveraged process due to its position regarding contracted investment policies assumed in this study. Consequently, this fact will modify the firm's structure (Graphic 13). As an additional note, the APV method in detriment of the WACC method was applied, because it is most suitable with the firm's changing structure.



Graphic 13 - Explicit period financial debt and capital structure (source: Cofina's reports; dissertation analysis)

As for the interest expenses computation, two different approaches were followed. With the recent bond loan issue it was assumed in the explicit period, the same conditions of the announcement. Thus, since the bond loan is indexed to the 6 month Euribor, the estimation followed the projections of the forward rates of the 6 month Euribor each year (Appendix 2), plus a spread of 3.8%. The spreads used correspond to information made available in Cofina's announcement.

In what regards the other types of debt, it was assumed the firm's debt rating approach, which is given by the risk free rate plus a default spread. For the risk free rate, the yield of 10-years Portuguese Government Bonds was used, since Cofina's debt is normally contracted by Portuguese credit institutions. As for the default spread estimation, the Damodaran's table<sup>9</sup> (Appendix 3) was once more used. Consequently, the average interest coverage ratio of the historic period was calculated, which resulted in a rating of "A-" and an associated default spread of 1.3%.

<sup>&</sup>lt;sup>9</sup>Available at Damodaran website

#### 6.7. Income tax

For the income tax, the Portuguese legislation in force in 2013 was considered. The tax rates are levied over the taxable profit as follows:

- (i) Corporate tax rate of 25%
- (ii) Municipal surcharge of 1.5%
- (iii) State surcharge of 3% to be levied over the taxable income between 1.5 million and7.5 million Euros and 5% to be levied over the taxable income exceeding 7.5 millionEuros

However, with the recent 2014 State Budget and Corporate Income Tax Reform, as of 2014, the corporate tax rate is reduced to 23%, instead of the 25%.

## **7.** VALUATION RESULTS

Having presented the valuation assumptions for the items with an impact on the cash flows estimation and the financial structure, this section will approach the APV valuation assumptions and results.

## 7.1. Unlevered value

As explained in the literature review, the unlevered value is the value of the firm if it had no debt and was entirely equity financed. In order to achieve this value, the estimation of the appropriate discount rate, the unlevered cost of equity (Ku), is required. This rate can be attained through CAPM with the following assumptions:

i) The risk free: as explained in the literature review (section 2.4.3.1), the appropriate risk free rate should be based on government treasury bonds and the maturity should match the valuation explicit period. Additionally, this rate is the return an investor would expect from a risk-free investment. Since the Portuguese government bonds fail to comply with this condition, the risk free rate considered was the 10-year yields of the German Government Bonds as of the 31<sup>st</sup> of January 2014.<sup>10</sup>

<sup>&</sup>lt;sup>10</sup> Source: Bloomberg

- ii) Unlevered beta: Following the Brotherson et al. (2013) research, beta was picked from published sources. Thus, the unlevered beta ( $\beta_u$ ) of the European Publishing & Newspapers industry, provided by Damodaran web-site<sup>11</sup>, was selected. Additionally, given the fact that Cofina's shares had low liquidity in previous years, Cofina's beta obtained through a regression with the stock's excess returns index, possibly will not result in very consistent results.
- iii) Risk premium: the average risk premium of Brotherson et al. (2013) research was assumed.
- iv) Country risk premium: last but not least, since Cofina's main revenues come from Portuguese sources, they are exposed to the economic and political country risk. To estimate the country's risk premium, the Damodaran approach was followed and the default spread associated with the country's rating was used as reference<sup>12</sup>.

As a result the unlevered cost of equity corresponds to 10.04%. The calculation inputs can be summarized as follows:

Inputs	
Risk free (Rf)	1.66%
Unlevered Beta	0.8294
Risk Premium	6.50%
Country Risk Premium	3.60%
Unlevered Cost of Equity (Ku)	10.04%

Table 9 – Unlevered Cost of Equity inputs

## 7.2. Debt financing side effects

#### 7.2.1. Tax Shields

Generally, when a company increases its debt, the taxable income reduces since the interest derived from debt financing are tax deductible. As a result, debt financing generates tax shields.

In order to compute the tax shields of Cofina, formula [6] was considered. Additionally, it is important to note the following:

(iv) Tax rate: interest payments will be deductible at 29.5% tax rate in 2013 and from 2014 onwards the rate will be 27.5%

<sup>&</sup>lt;sup>11</sup> <u>http://pages.stern.nyu.edu/~adamodar/</u>

<sup>&</sup>lt;sup>12</sup> <u>http://pages.stern.nyu.edu/~adamodar/</u>

 (v) Discount rate: the cost of debt (k<sub>d</sub>) was chosen as the appropriate discount rate for the tax shields

#### 7.2.2. Cost of financial distress

As explained in the literature review (section 2.4.2), the cost of financial distress depends on two variables, the bankruptcy costs as a percentage of the firm value (%CFD) and the probability of default [P(D)].

For the bankruptcy costs, the Andrade and Kaplan (1998) conservative estimate of 23% of the unlevered firm value was considered.

As for the default probability, it was determined based on the "2012 Annual European Corporate Default Study and Rating Transitions" issued by Standard & Poor's on March 2013. In which for each default rate, a rating was associated. In order to determine the rating of the company each year, the Damodaran interest coverage ratio table was used (Appendix 3).

#### 7.3. Terminal Value

The terminal value is very important on valuation (Young et al., 1999). This fact can be explained by the great influence and contribution it has on the final result. Specifically, since cash flows cannot be estimated forever, the terminal value demonstrates the value of the firm after the explicit period estimations (Damodaran 2002). Hence, the terminal value can be computed as follows:

**[10]** Terminal Value<sub>t</sub> =  $\frac{Cash Flow_{t+1}}{Discount Rate - stable growth rate}$ 

After the estimation of a 10 year explicit period, we assume that Cofina's expected cash flows will continue to grow perpetually at a given stable rate. Therefore, the terminal growth rate has to be less than or equal to the expected growth rate of the economy in which the firm operates (Damodaran 2006). Based on this argument and to be consistent with the assumptions of the explicit period for the operating revenues, the IMF forecast for 2020 real GDP<sup>13</sup> of 2% as the terminal growth rate was assumed.

<sup>&</sup>lt;sup>13</sup> International Monetary Fund (2014), IMF Country Report No. 14/56

Additionally, despite the long run negative outlook for the traditional newspaper and magazines sector (currently Cofina's core business), the company is following their strategy and expand to others media markets with better future perspectives. Particularly, the recent success of the new TV channel allowed to increase profitability and, to enter in a market that will growth annually 1.7% in Portugal and 3.8% globally (PwC 2013). Also, the business expansion to Brazil and the changes to online and digital content, following the industry trends, appear to be go reasons to justify the company's growth. Therefore, it seems reasonable to assume that Cofina will growth 2% in perpetuity.

Also, the circulation market is suffering changes and Cofina is turning over the digital circulation. Therefore, it seems reasonable to assume that Cofina will growth 2% in perpetuity

In what regards the tax shield's terminal value growth rate, the same growth rate as the cashflows was assumed, considering that indebtedness grows at the same rate as the company's operations (Luehrman, 1997).

#### 7.4. Price Target

Following the APV method with a sum of the parts approach, Cofina's Enterprise Value was estimated using formula **[4]**. As illustrated below (Table 10), one can note that most of Cofina's value comes from the newspaper segment, as it represents 94% of the Enterprise Value.

In order to achieve Cofina's Equity Value, additional adjustments have to be considered. Thus, the non-equity claims, namely the net debt, minority interest and financial investments, were deducted / added to the Enterprise Value.

		%EV
Newspapers Unlevered Value	136.201	94,3%
Magazines Unlevered Value	315	0,2%
Total Unlevered Value	136.516	94,5%
PV of Tax Shields	9.649	6,7%
PV of CDF	(1.720)	-1,2%
Enterprise Value	144.445	100,0%
Debt (2013YE)	(82.136)	
Cash & Equivalents (2013YE)	15.289	
Net Debt	(66.847)	
Minority interest (2013YE)	(740)	
Financial Investments (2013YE)	3.435	
Equity Value	80.293	

Table 10 - Cofina's Equity Value

According to Koller et al. (2010), once we achieve consistent and reliable results, we should test the plausibility of the valuation model. Since we are studying a listed company, we should also compare our results with the market value. Based on this approach, after the estimation of all valuation components, it was possible to determine Cofina's price target. Considering that the company has 102.566 thousands of shares outstanding the **Price Target in this valuation is 0.78**  $\boldsymbol{\epsilon}$ . This represents an appreciation potential of 23%, since the share price as of the 31<sup>st</sup> of January 2014 was 0.62  $\boldsymbol{\epsilon}$ . Based on this fact, we recommend investors to buy, meaning that Cofina's shares are expected to generate a total return over 20% during the next 12 months.

#### 7.5. Sensitivity Analysis

After estimating the valuation with consistent results, it is important to perform sensitivity analysis, since the assumptions defined are based on forecasts that might not be achievable in the future. Concretely, the achieved price target could not correspond to the intrinsic share price. This fact is related with the uncertainty that this type of valuation has associated to it.

Hence, a sensitivity analysis was performed in order to analyze and test the impact on the Price Target if the terminal growth rate or the unlevered cost of equity (Ku) changed (Table 11).

			-							
			Terminal Value Growth (g)							
of		1,0%	1,5%	2,0%	2,5%	3,0%				
ost u)	9,04%	0,85	0,90	0,96	1,03	1,11				
d Co (K	9,54%	0,77	0,81	0,86	0,92	0,99				
rere quity	10,04%	0,70	0,74	0,78	0,83	0,89				
леv Ес	10,54%	0,64	0,67	0,71	0,75	0,80				
٦ ٦	11,04%	0,58	0,61	0,65	0,68	0,73				

#### Price Target Sensitivity Analysis

Table 11 - Price Target Sensitivity Analysis

One of the main purposes of this type of analysis is to see which inputs have most impact on a valuation result (Koller et. al 2010). Based on that, it becomes possible to establish the valuation range. Table 11 shows the impact on the price target with variation in Ku and on terminal growth rates. As expected, when the terminal growth rate is increased and the Ku is reduced the price target increases, the opposite is also valid with the decrease in the price

target. These deviations have a significant impact on the price target, which varies between  $0.58 \in$  and  $1.11 \in$ . This analysis shows the that even in the majority of negative case scenarios, Cofina's price target is still above the trading price of  $0.62 \in$ , thus, we are confident that buying the company's stock will yield a positive return in twelve months.

#### 8. **RELATIVE VALUATION**

As referred in the literature review, relative valuation helps to reinforce the final result obtained through the DCF method and identify differences among comparable companies (Fernández 2013; Goedhart el al, 2005). This method is considered the most simplistic valuation method and aims to estimate an asset's value by comparing a common value driver with the average of the peer group.

Therefore, in order to know where Cofina stands in terms of its comparables at current market prices and at our price target, a relative valuation was used to perform this analysis.

Relative valuation can only be considered valid if it is based on a proper selection of peers. Hence, in order to conduct a relative valuation, the first step is to choose an appropriate peer group. We start by analyzing a large set of companies considered on the investment research of Caixa BI<sup>14</sup>. It is important to note that this set considers a vast panoply of media companies, which do not always have the same core business as Cofina. Thus, the selection criteria were the similarity of the business segments comparing with Cofina and the availability of data. Six companies were included in the peer analysis (see Appendix 5 for a companies' description). The second step is to choose the appropriate multiples for the company. As discussed in the literature review, the most commonly use multiples in the media sector are PER and EV/EBITDA (Fernández 2013).

Company	Country	Price	Market Cap (m)	PER (adj.) <sup>15</sup>	EV/EBITDA
Alma Media	FI	3,04 €	227	11	7.2
Lagardère	FR	26.98€	3.618	2.6	1.2
Roularta	BE	11.11€	141	7.2	4.4
Sanoma	FI	6.49€	1.057	10.5	2.8
Talentum	FI	1.12€	49	21.2	9.7
Telegraaf Media Groep	NL	8.22€	381	25.6	29.8
Average				13.0	9.2

<sup>14</sup> Caixa BI Investment Research – Cofina (17/01/2014)

<sup>15</sup> Adjustments to exclude other non-recurrent items or results from discontinued operations

	12.7%	6.1%
Cofina (Dissertation analysis)	11.4	8.6
Table 12 Cofine mean mean and multiples (Corners Coine DI and discontation of	n a luncia)	

 Table 12 – Cofina peer group and multiples (Source: Caixa BI and dissertation analysis)

Through the analysis of the above table, we can observe that our multiples are not far from the peer group average. In fact, the average multiples of the peer group are 12.7% and 6.1% higher than multiples obtained in our study regarding PER and EV/EBITDA.

Additionally, we conclude that relative valuation is useful as a complement of the DCF valuation, because the price target obtain by multiplying the peer's average multiple by Cofina's correspondent multiplier (i.e., PER by net income and EV/EBITDA by EBTIDA) is still above its trading price of  $0.62 \in$  (Table 13). Again, it reinforces the idea that Cofina is undervalued and trading at discount. However, this approach has some limitations as previously referred in the literature review (section 2.3). For instance, due to the lack of detailed information of the comparable companies, they can differ from Cofina in variables like growth rates, ROIC, or capital structures. It is also difficult to find a direct comparable for Cofina, given its small size and characteristics of the business.

	PER	ev/ebitda
Enterprise Value	156.104	153.819
Equity value	91.953	89.667
Price Target	0,90	0,87

Table 13 – Cofina Price Target with relative valuation

## 9. VALUATION COMPARISON WITH CAIXA BI REPORT

This section intends to compare our analysis with a leading investment bank. Among the few that follow Cofina, we chose Caixa BI Investment Research as of the 17<sup>th</sup> of January 2014.

Regarding methodology, while Caixa BI applied the WACC method, we choose the APV based on reasons previously mentioned in the valuation methodology (section 5). In general, the WACC method is the most used among practitioners and is the one that investors are more familiar with (Damadoran 2006; Froot 1997). This fact can be explained by the definition of more rigid assumptions, which makes it easier to apply. For instance, this method considers in its discount rate the effect of tax shields and bankruptcy costs. Thus, it is not necessary to estimate these items separately as in the APV approach. WACC is most suitable and efficient to apply in companies with a stable capital structure (Koller et. al. 2010). It is important to note that WACC can also be used in companies with dynamic capital structure, but it involves complex procedures and in these cases, APV method is recommended (Koller et. al. 2010).

This leads us to our main contribution in this study. We argue that Cofina has a dynamic capital structure and will continue to have this behavior in the future; these constitute the main reasons for the application of this method in our valuation. Caixa BI, as a member of the European Securities Network (ESN), uses WACC as a standard method, which means it applies this method independently of companies' characteristics. APV approach can contribute to the accuracy of the valuation regarding the specific characteristics of Cofina (e.g., changes in financial structure). Additionally, it allows us to know where the company is creating value because it considers individual assumptions of tax shields and bankruptcy costs. Comparing with WACC, this method is more difficult to apply but due to Cofina's characteristics is more reliable and consistent.

In what concerns the assumptions, not only are they different but additionally the valuation drivers assume discrepancies (Table 14).

Caixa Bl		Dissetation analysis	
Risk free (Rf)	4.5%	Risk free (Rf)	1.66%
Beta	1.7	Unlevered Beta	0.83
Risk Premium	4.0%	Risk Premium	6.50%
Ке	11.3%	Country Risk Premium	3.60%
Kd	8.5%	Ku	10.0%
Тах	27.5%	Тах	29.5%/27.5%
E/(E+D)	70.0%	Terminal Growth	2.00%
WACC	9.8%		

Terminal Growth 1.0%

Table 14 – Caixa BI and Dissertation analysis valuation inputs

According to the above table, the main differences are explained as follows:

- v) Risk free: Caixa BI considered the average risk free rate of European countries. However, since this rate is the return an investor would expect from a risk-free investment, using the European average ignores the fact that some countries in Europe fail to comply with this condition (e.g., Portugal and Greece). Under these circumstances, we believe that the 10-year yield of the German Government Bonds is a better estimate.
- vi) Beta: the main difference between the betas is related to the fact that Caixa BI uses the levered beta and in our analysis we considered the unlevered beta. Another fact is

- vii) Risk premium: Caixa BI considered the average of the long-term market risk-premium in Europe. However, since the core of Cofina's business derives from Portuguese sources, the company is exposed to the economic and political country risk. For this reason, investors required a higher return rate than the European average, so the Portuguese country risk should be added to the risk premium.
- viii) Terminal growth rate: Caixa BI followed a more conservative approach and considered the growth rate inferior to the Portuguese inflation rate.

All in all, the price target obtained by Caixa BI was 0.70 € with an accumulate recommendation, which results in a difference, between both analysis, of 0.08€. It is also important to note that the investment bank expects Cofina's stock to generate a total return of 10% to 20% during the next 12 months time horizon.

As a final test, we considered Caixa BI's valuation inputs in our model to verify the price target achieved and to test the consistency of our model. However, since we used the APV model, one needs first to compute the unlevered beta through Caixa BI's levered beta using the following formula:

**[11]** 
$$\beta_l = \beta_u [1 + (1 - T) * \frac{D}{E}]$$

The computation gave an unlevered beta of 1.3 and subsequently an unlevered cost of equity of 9.69%. As a result, by changing the valuation inputs (terminal growth rate of 1% and Ku of 9.69%), and keeping everything else constant, the new price target is increased to  $0.84 \in$ . It is possible to confirm this change with the sensitivity analysis previously presented in section 7.5 (Table 11).

## **10.** CONCLUSION

The main purpose of this dissertation was to conduct Cofina's equity valuation, considering the macroeconomic context, industry perspectives and historical evolution of the company. After that a cross-analysis between our valuation and an investment bank as Caixa BI was made.

Through the literature review, it is clear that there is no universal method or a one-size-fits-all model that can be used for any company under any context. Hence, grounded on the understanding of the main valuation methods, Cofina's characteristics and data availability we defined our valuation strategy to provide us a final price target.

In what concerns methodology, based on a focused literature review a hybrid methodology was selected that considers APV approach and relative valuation. Because of Cofina's capital structure, we applied a well-known and robust method as APV. Although the use of methods as APV is important to establish a link between forecasts and the firm's value, it does not guarantee the accuracy of valuation results. Yet, to test the reliability of valuation model, we complement our study with a relative valuation, which revealed to be consistent with our final results. Due to the different Cofina's business segments (magazines and newspapers), we used a SOTP technique, separating the businesses not only to consider different business drivers (e.g. fiscal benefits) and risks (e.g. bankruptcy costs related with financing structure) but to individually forecast behaviors based on accounting and operational data. Also, to assure a more realistic, consistent and accurate forecast, Cofina's accounts were extensively studied and the balance sheet items were estimated. Building a forecast with the right accounting relationships is important to have a reliable valuation.

The main contribution of this dissertation is an independent recommendation to investors. We obtained a price target of 0.78 € with a recommendation to buy. This represents an appreciation potential of 23% because Cofina's shares are trading at discount. The recommendation means that Cofina's shares are expected to generate total return over 20% during the next 12 months. In addition, due to the adverse financial context, Cofina is still facing difficulties created by the lack of investments on the advertising market. Notwithstanding, due to Cofina's strategy to maximize the value of its existing portfolio and continuous growth in all media segments, they expanded their portfolio to TV (i.e., CMTV channel). This shows the ability of the company to overcome financial obstacles and to maintain its value on the market reinforces our recommendation to hold.

To see if it is reasonable to assume the price target achieved and consequently our recommendation, a sensitivity analysis was realized. This analysis allowed us to see how changes in some key assumption can significantly impact the valuation output. This reinforces the idea that valuation is not an objective science and is highly dependent of the data quality and the definition of assumptions. Obviously, when we are considering scenarios of financial instability and market volatility the uncertainty increases. Therefore, every valuation must be updated on a regular basis to consider the changes in the firm's prospects.

The comparison realized with Caixa BI valuation of Cofina allowed to compare the methodology and assumptions defined in our study. While Caixa BI used WACC method, we applied the APV approach. Also, different assumptions were defined. Even though different perspectives were assumed, the final result revealed to be quite similar. Our Cofina's price target of  $0.78 \in$ , is quite close to Caixa BI's estimate of  $0.70 \in$ . Regarding recommendation, while we recommend to buy Caixa BI recommends to accumulate, i.e., Cofina's shares are expected to generate total return of 10% to 20% during the next 12 months. Yet, both valuations consider that Cofina is undervalued in the market with a share price of  $0.62 \in$  in 31st January 2014.

In conclusion, valuation is not an easy task to perform and must be traced carefully to consider the specificities of a certain company. That is why it constitutes an interesting exercise with useful outputs. Different paths can lead to similar results based on different assumptions. The challenge is to understand the path hindered by data and cross it until achieve a consistent price target.

## **APPENDICES**

## Appendix 1 – Portuguese Economy Forecast (IMF)

IMF Projections	2013	2014	2015	2016	2017	2018	2019
Real GDP growth	-1,6%	0,8%	1,5%	1,7%	1,8%	1,8%	1,8%
Inflation rate (GDP deflator)	1,7%	0,9%	1,0%	1,7%	1,8%	1,8%	1,8%
Private consumption	-1,1%	0,1%	0,5%	0,4%	0,5%	0,5%	0,5%
Compensation per worker	2,7%	-0,9%	1,0%	1,2%	1,2%	1,2%	1,2%
Employment	-3,2%	-0,4%	0,4%	0,6%	0,6%	0,6%	0,6%

#### Appendix 2 - Forwards 6M Euribor (Source: Bloomberg 16-01-2014)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0,334%	0,390%	0,550%	1,060%	1,655%	2,173%	2,556%	2,883%	3,137%	3,361%

## Appendix 3 – Rating estimation

If interest coverage ratio is									
≤ to	>	S&P	Moody	Spread is					
0,20	-100000	D	D2	12,00%					
0,65	0,20	С	C2	10,50%					
0,80	0,65	CC	Ca2	9,50%					
1,25	0,80	CCC	Саа	8,75%					
1,50	1,25	B-	B3	7,25%					
1,75	1,50	В	B2	6,50%					
2,00	1,75	B+	B1	5,50%					
2,25	2,00	BB	Ba2	4,00%					
2,50	2,25	BB+	Ba1	3,00%					
3,00	2,50	BBB	Baa2	2,00%					
4,25	3,00	A-	A3	1,30%					
5,50	4,25	А	A2	1,00%					
6,50	5,50	A+	A1	0,85%					
8,50	6,50	AA	Aa2	0,70%					
100000	8,50	AAA	Aaa	0,40%					

20	14
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Rating	Default Rate (10 years)
AAA	0,00
AA+	0,00
AA	0,54
AA-	0,45
A+	0,07
А	0,92
A-	0,93
BBB+	0,99
BBB	1,42
BBB-	2,38
BB+	2,70
BB	4,28
BB-	16,30
B+	14,38
В	16,79
B-	29,91
ССС	43,30

## Appendix 4 – S&P 2012 Annual European Corporate Default Study

Appendix 5 - Peer group description S&P

Company	Country	Activity
AL/ MA	Finland	Alma Media is a media company focusing on digital services and publishing. In addition to news services, the company's products provide useful information related to lifestyle, career and business development. It is present in following segments: newspapers, digital consumer services and other operations. The company's strategy is to refine its newspapers into multimedia brands and introduce new digital services to the market.
Lagardère	France	Lagardère is a world-class pure-play media group, operates in around 30 countries and is structured around four divisions: Publishing (book and e-Publishing); Active (Press, Audiovisual, Radio, Television, Audiovisual Production); Digital and Advertising Sales Brokerage Services (Travel Retail and Distribution) and Unlimited (Sport Industry and Entertainment).
Roularta MediaGroup	Belgium	Roularta is a dynamic and leading player in the publication and printing of news and niche magazines, newspapers and freesheets, in the audiovisual media landscape and in electronic publishing.
<b>Sanoma</b>	Finland	Sanoma Oyj is a leading media group in the Nordic countries with operations in over 10 European countries, based in Helsinki. The group is also among the top five European magazine publishers and has a strong position. The company consists of five divisions: magazines (magazine publishing and online operations); news (newspaper publishing, online operations and printing); learning & literature (educational publishing, publishing, and business information and services); entertainment (TV, online gaming services, and radio) and trade (kiosk operations, press distribution, bookstores and entertainment)
⊚talentum	Sweden	Talentum Sweden is a publishing house that produces, magazines, journals, professional literature, seminars, events and digital content for professionals in different fields: economists, engineers, lawyers, doctors, and IT and marketing experts in both Finland and Sweden.
telegraaf media groep	Netherla nds	TMG is the publisher of the biggest and most read newspaper in the Netherlands: De Telegraaf. This paid newspaper provides its readers with news, background information and infotainment six days a week, thus reaching and retaining a wide target group. It uses several distribution media channels like: newspaper, website, video and mobile.

## Appendix 6 - Balance Sheet Historic period

(Thousands of Euros)					
Balance Sheet	2008	2009	2010	2011	2012
ASSETS					
NON CURRENT ASSETS:					
Tangible assets	11.543	9.927	10.756	9.562	8.177
Goodwill	89.054	91.997	94.992	93.700	93.404
Intangible assets	441	527	513	537	483
Investments in associated companies	6.381	4.734	3.393	3.438	3.427
Investments available for sale	-	-	5	9	9
Deferred tax assets	8.682	3.723	8.782	7.512	5.589
Total non current assets	116.101	110.908	118.441	114.757	111.087
CURRENT ASSETS:					
Inventories	1.939	3.130	3.984	4.093	2.077
Customers	11.573	11.384	12.597	9.185	7.104
State and other public entities	1.320	523	283	136	329
Other current debtors	812	714	1.575	304	388
Other current assets	7.691	8.617	6.182	6.453	5.681
Investments measured at fair value through profit and loss	56.495	65.902	51.502	9	9
Cash and cash equivalents	47.787	46.316	25.179	39.168	15.741
Total current assets	127.617	136.585	101.301	59.348	31.330
TOTAL ASSETS	243.717	247.494	219.743	174.105	142.417
EQUITY					
SHAREHOLDERS' FUNDS:					
Share capital	25.641	25.641	25.641	25.641	25.641
Share premium	15.875	15.875	15.875	15.875	15.875
Legal reserve	5.409	5.409	5.409	5.409	5.409
Other reserves	13.089	(60.363)	(44.757)	(40.630)	(36.914)
Consolidated net profit for the year attributable to equity holder					
of the parent company	(73.273)	17.092	5.018	4.812	3.987
Equity attributable to equity holder of the parent company	(13.258)	3.654	7.186	11.108	13.998
Non-controlling interests	767	592	736	788	740
TOTAL EQUITY	(12.491)	4.246	7.922	11.896	14.738
LIABILITIES	. ,				
NON CURRENT LIABILITIES:					
Bank loans	-	-	-	-	13.000
Other loans	99.432	49.720	19.986	-	-
Pension liabilities	709	691	701	444	435
Other non current creditors	5.669	3.470	2.457	1.273	484
Deferred tax liabilities	-	-	-	-	-
Provisions	1.015	1.076	2.548	5.861	6.430
Total non current liabilities	106.825	54.958	25.691	7.577	20.348
CURRENT LIABILITIES:					
Bank loans	12.454	2.418	21.309	26.965	9.856
Other short-term loans	99.327	143.300	123.997	92.087	66.033
Derivative financial instruments	-	245	931	1.002	993
Suppliers	11.698	12.804	11.523	9.441	8.717
State and other public entities	3.095	4.888	3.678	4.549	2.637
Other current creditors	7.806	8.464	9.747	8.699	8.025
Other current liabilities	15.003	16.170	14.945	11.889	11.070
Total current liabilities	149.384	188.290	186.129	154.632	107.331
TOTAL LIABILITIES	256.208	243.248	211.820	162.209	127.679
TOTAL EQUITY AND LIABILITIES	243.717	247.494	219.743	174.105	142.417

## Appendix 7 - Balance Sheet Explicit Period

(Thousands of Euros)										
Balance Sheet	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
ASSETS										
NON CURRENT ASSETS:										
Tangible assets	8.027	7.878	7.727	7.574	7.418	7.260	7.098	6.934	6.890	6.890
Goodwill	93.404	93.404	93.404	93.404	93.404	93.404	93.404	93.404	93.404	93.404
Intangible assets	521	559	598	637	676	717	758	800	819	819
Investments in associated companies	3.427	3.427	3.427	3.427	3.427	3.427	3.427	3.427	3.427	3.427
Investments available for sale	9	9	9	9	9	9	9	9	9	9
Deferred tax assets	4.046	2.503	2.503	2.503	2.503	2.503	2.503	2.503	2.503	2.503
Total non current assets	109.433	107.780	107.667	107.553	107.437	107.319	107.199	107.077	107.051	107.051
CURRENT ASSETS:										
Inventories	2.566	2.560	2.598	2.636	2.679	2.722	2.766	2.815	2.872	2.929
Customers	8.649	8.632	8.762	8.892	9.038	9.186	9.337	9.507	9.697	9.891
State and other public entities	421	420	426	433	440	447	454	463	472	481
Other current debtors	624	623	632	641	652	663	674	686	700	714
Other current assets	6.252	6.283	6.358	6.440	6.530	6.622	6.715	6.820	6.947	7.076
Investments measured at fair value through										
profit and loss	9	9	9	9	9	9	9	9	9	9
Cash and cash equivalents	15.289	15.259	15.489	15.718	15.976	16.238	16.505	16.805	17.141	17.484
Total current assets	33.810	33.786	34.274	34.770	35.324	35.887	36.460	37.105	37.837	38.584
TOTAL ASSETS	143.243	141.566	141.941	142.323	142.760	143.205	143.658	144.181	144.888	145.635
EQUITY										
SHAREHOLDERS' FUNDS:										
Share capital	25.641	25.641	25.641	25.641	25.641	25.641	25.641	25.641	25.641	25.641
Share premium	15.875	15.875	15.875	15.875	15.875	15.875	15.875	15.875	15.875	15.875
Legal reserve	5.409	5.409	5.409	5.409	5.409	5.409	5.409	5.409	5.409	5.409
Other reserves	(33.953)	(28.168)	(22.638)	(16.790)	(10.758)	(4.664)	1.604	8.146	15.058	22.398
Consolidated net profit for the year attributable	(/	( /	(,	( /	()	( )				
to equity holder of the parent company	6.810	6.556	8.595	8.830	8.988	9.304	9,754	10.320	10.955	11.617
Equity attributable to equity holder of the										
parent company	19.783	25.314	32.883	38.965	45.156	51.565	58.283	65.392	72.939	80.941
Non-controlling interests	740	740	740	740	740	740	740	740	740	740
TOTAL EQUITY	20.523	26.054	33.623	39.705	45.896	52.305	59.023	66.132	73.679	81.681
LIABILITIES										
NON CURRENT LIABILITIES:										
Bank loans	11.000	9.000	5.000	-	-	-	-	-	-	-
Other loans	-	-	-	-	-	-	-	-	-	-
Pension liabilities	435	435	435	435	435	435	435	435	435	435
Other non current creditors	484	38	27	4	-	-	-	-	-	-
Deferred tax liabilities	-	-	-	-	-	-	-	-	-	-
Provisions	6.932	7.432	7.941	8.456	8.981	9.513	10.054	10.605	11.167	11.740
Total non current liabilities	18.850	16.905	13.403	8.896	9.415	9.948	10.489	11.039	11.601	12.174
CURRENT LIABILITIES:										
Bank loans	8.030	6.064	4.552	3.976	7.789	11.516	15.122	12.258	9.276	6.130
Other short-term loans	63.106	59.897	57.430	56.489	46.047	35.462	24.681	20.007	15.141	10.005
Derivative financial instruments	993	993	993	993	993	993	993	993	993	993
Suppliers	9.049	9.029	9.163	9.296	9.446	9.599	9.754	9.928	10.127	10.330
State and other public entities	3.173	3.166	3.212	3.259	3.312	3.365	3.420	3.481	3.550	3.621
Other current creditors	8.025	8.025	8.025	8.025	8.025	8.025	8.025	8.025	8.025	8.025
Other current liabilities	11.494	11.434	11.540	11.684	11.837	11.993	12.152	12.318	12.495	12.676
Total current liabilities	103.870	98.607	94.916	93.723	87.449	80.953	74.147	67.010	59.608	51.780
TOTAL LIABILITIES	122.720	115.512	108.319	102.618	96.864	90.901	84.635	78.049	71.209	63.954
TOTAL EQUITY AND LIABILITIES	143.243	141.566	141.941	142.323	142.760	143.205	143.658	144.181	144.888	145.635

## Appendix 8 - Income statement Historic Period

(Thousands of Euros)					
Income Statement	2008	2009	2010	2011	2012
Circulation	61.555	63.615	65.152	64.682	60.076
Advertising	61.020	54.512	54.863	49.774	39.556
Alternative marketing products and others	21.458	15.926	16.299	12.222	13.695
Operating Revenue	144.033	134.053	136.314	126.677	113.327
Cost of sales	21.130	19.538	18.696	19.561	17.819
External supplies and services	60.444	51.852	52.065	47.517	45.354
Payroll expenses	40.736	39.442	40.055	36.405	33.210
Provisions and impairment losses	518	1.207	671	3.052	99
Other expenses	866	619	1.720	392	307
Operating Expenses	123.695	112.657	113.206	106.927	96.790
EBITDA	20.338	21.396	23.108	19.751	16.538
Amortisation and depreciation	3.579	2.974	3.619	3.363	3.172
EBIT	16.759	18.422	19.489	16.388	13.366
Financial expenses	92.131	7.023	17.790	6.180	4.802
Financial income	2.615	13.416	1.412	3.159	1.338
Profit before income tax	(72.757)	24.815	3.112	13.367	9.902
Income tax	560	7.545	(2.139)	8.417	5.655
Net profit for the year	(73.317)	17.270	5.250	4.950	4.247
Attributable to:					
Shareholders' of the Parent Company	(73.273)	17.092	5.018	4.812	3.987
Non-controlling interests	(44)	179	232	138	260
Earnings per share:					
Basic	-0,71	0,17	0,05	0,05	0,04
Diluted	-0,58	0,14	0,05	0,05	0,04

## Appendix 9 - Income statement Explicit Period

(Thousands of Euros)										
Income Statement	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Circulation	59.001	59.376	60.127	60.967	61.882	62.813	63.759	64.820	66.117	67.439
Advertising	37.758	37.300	38.006	38.593	39.287	39.994	40.714	41.529	42.359	43.206
Alternative marketing products and others	13.312	13.178	13.376	13.604	13.848	14.098	14.351	14.638	14.931	15.230
Operating Revenue	110.071	109.854	111.510	113.164	115.018	116.905	118.825	120.987	123.407	125.875
Cost of sales	16.224	16.188	16.428	16.667	16.936	17.209	17.487	17.800	18.156	18.520
External supplies and services	42.974	42.879	43.513	44.148	44.859	45.583	46.320	47.149	48.092	49.054
Payroll expenses	32.986	32.627	32.999	33.561	34.150	34.749	35.359	35.980	36.611	37.254
Provisions and impairment losses	502	501	508	516	524	532	541	551	562	573
Other expenses	635	633	643	652	663	673	684	697	710	725
Operating Expenses	93.321	92.828	94.091	95.544	97.132	98.748	100.392	102.177	104.132	106.125
EBITDA	16.750	17.026	17.418	17.619	17.886	18.157	18.433	18.811	19.275	19.750
Amortisation and depreciation	2.820	2.815	2.857	2.900	2.947	2.995	3.045	3.100	3.162	3.225
EBIT	13.929	14.211	14.561	14.720	14.939	15.161	15.388	15.711	16.113	16.525
Financial expenses	3.034	4.038	3.577	3.390	3.376	3.134	2.699	2.188	1.656	1.094
Financial income	1.385	1.385	1.385	1.385	1.385	1.385	1.385	1.385	1.385	1.385
Profit before income tax	12.280	11.558	12.369	12.715	12.948	13.412	14.074	14.908	15.842	16.816
Income tax	5.216	4.757	3.454	3.556	3.625	3.762	3.957	4.203	4.478	4.766
Net profit for the year	7.064	6.800	8.915	9.159	9.323	9.650	10.117	10.705	11.364	12.050
Attributable to:										
Shareholders' of the Parent Company	6.810	6.556	8.595	8.830	8.988	9.304	9.754	10.320	10.955	11.617
Non-controlling interests	254	244	320	329	335	347	363	385	408	433
Earnings per share:										
Basic	0,07	0,07	0,09	0,09	0,09	0,09	0,10	0,10	0,11	0,12
Diluted										

## Appendix 10 – EBIT Newspaper Historic Period

(Thousands of Euros)					
Newspapers	2008	2009	2010	2011	2012
Circulation	44.324	46.108	48.305	48.890	46.018
Advertising	44.836	40.076	41.006	38.177	30.932
Alternative marketing products and others	13.739	12.335	12.174	9.614	10.958
Operating Revenue	102.899	98.519	101.485	96.681	87.908
Cost of sales	14.476	13.527	13.027	14.078	13.159
External supplies and services	41.409	35.900	36.278	34.199	33.494
Payroll expenses	27.908	27.308	27.910	26.201	24.526
Provisions and impairment losses	355	836	467	2.197	73
Other expenses	593	428	1.198	282	227
Operating Expenses	84.741	77.999	78.881	76.957	71.479
EBITDA	18.158	20.520	22.604	19.724	16.429
Amortisation and depreciation	3.345	2.838	3.446	3.291	3.112
EBIT	14.813	17.682	19.158	16.433	13.317
EBITDA margin	17,6%	20,8%	22,3%	20,4%	18,7%
EBIT margin	14,4%	17,9%	18,9%	17,0%	15,1%

#### Appendix 11 – EBIT Newspaper Explicit Period

(Thousands of Euros)										
Newspapers	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Circulation	45.098	45.458	46.140	46.925	47.769	48.629	49.504	50.495	51.504	52.535
Advertising	29.695	29.398	29.986	30.436	30.983	31.541	32.109	32.751	33.406	34.074
Alternative marketing products and others	10.684	10.577	10.736	10.918	11.115	11.315	11.519	11.749	11.984	12.224
Operating Revenue	85.476	85.433	86.862	88.279	89.868	91.485	93.132	94.995	96.894	98.832
Cost of sales	11.995	11.989	12.190	12.388	12.611	12.838	13.069	13.331	13.597	13.869
External supplies and services	31.781	31.765	32.296	32.823	33.413	34.015	34.627	35.320	36.026	36.747
Payroll expenses	24.382	24.066	24.404	24.845	25.294	25.751	26.216	26.690	27.172	27.663
Provisions and impairment losses	371	371	377	383	390	397	404	413	421	429
Other expenses	469	469	476	484	493	502	511	521	531	542
Operating Expenses	68.998	68.659	69.743	70.923	72.202	73.503	74.828	76.274	77.748	79.251
EBITDA	16.479	16.774	17.119	17.355	17.666	17.982	18.304	18.721	19.147	19.582
Amortisation and depreciation	2.708	2.703	2.744	2.784	2.830	2.876	2.924	2.977	3.036	3.097
EBIT	13.771	14.071	14.376	14.571	14.836	15.106	15.380	15.744	16.110	16.485
EBITDA margin	19,3%	19,6%	19,7%	19,7%	19,7%	19,7%	19,7%	19,7%	19,8%	19,8%
EBIT margin	16,1%	16,5%	16,6%	16,5%	16,5%	16,5%	16,5%	16,6%	16,6%	16,7%

## Appendix 12 – EBIT Magazines Historic Period

(Thousands of Euros)					
Magazines	2008	2009	2010	2011	2012
Circulation	17.477	17.721	16.724	15.792	14.058
Advertising	15.367	12.613	13.941	11.597	8.624
Alternative marketing products and others	8.290	5.200	4.164	2.607	2.737
Operating Revenue	41.134	35.534	34.829	29.996	25.419
Cost of sales	6.654	6.011	5.669	5.482	4.660
External supplies and services	19.035	15.952	15.786	13.318	11.860
Payroll expenses	12.829	12.134	12.145	10.203	8.684
Provisions and impairment losses	163	371	203	855	26
Other expenses	273	190	522	110	80
Operating Expenses	38.954	34.658	34.325	29.969	25.310
EBITDA	2.180	876	504	27	109
Amortisation and depreciation	235	135	172	72	60
EBIT	1.945	741	332	(45)	49
EBITDA margin	5,3%	2,5%	1,4%	0,1%	0,4%
EBIT margin	4,7%	2,1%	1,0%	-0,1%	0,2%

#### Appendix 13 – EBIT Newspaper Explicit Period

(Thousands of Euros)										
Magazines	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Circulation	13.903	13.917	13.987	14.043	14.113	14.184	14.254	14.326	14.612	14.905
Advertising	8.063	7.902	8.021	8.157	8.304	8.453	8.606	8.778	8.953	9.132
Alternative marketing products and others	2.628	2.601	2.640	2.685	2.733	2.783	2.833	2.889	2.947	3.006
Operating Revenue	24.594	24.421	24.648	24.885	25.150	25.420	25.693	25.993	26.513	27.043
Cost of sales	4.229	4.199	4.238	4.279	4.325	4.371	4.418	4.470	4.559	4.650
External supplies and services	11.193	11.114	11.217	11.325	11.446	11.568	11.693	11.829	12.066	12.307
Payroll expenses	8.604	8.561	8.596	8.716	8.856	8.999	9.143	9.290	9.439	9.591
Provisions and impairment losses	131	130	131	132	134	135	137	138	141	144
Other expenses	166	165	167	168	170	172	174	176	179	183
Operating Expenses	24.323	24.169	24.349	24.621	24.931	25.245	25.564	25.903	26.384	26.875
EBITDA	271	251	299	264	220	175	129	90	129	168
Amortisation and depreciation	112	112	114	115	117	119	121	123	126	128
EBIT	159	139	185	149	103	56	8	(33)	3	40
EBITDA margin	1,1%	1,0%	1,2%	1,1%	0,9%	0,7%	0,5%	0,3%	0,5%	0,6%
EBIT margin	0,6%	0,6%	0,8%	0,6%	0,4%	0,2%	0,0%	-0,1%	0,0%	0,1%

#### Appendix 15 – Newspaper Valuation

(Thousands of Euros)										
FCFF	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
EBIT	13.771	14.071	14.376	14.571	14.836	15.106	15.380	15.744	16.110	16.485
Tax rate	29,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%
Taxes on EBIT	4.062	3.870	3.953	4.007	4.080	4.154	4.230	4.330	4.430	4.533
EBIT(1-T)	9.708	10.202	10.422	10.564	10.756	10.952	11.151	11.414	11.680	11.952
+Depreciation	2.708	2.703	2.744	2.784	2.830	2.876	2.924	2.977	3.036	3.097
-Capex	2.592	2.587	2.626	2.665	2.709	2.753	2.799	2.850	3.001	3.086
-∆Net Working Capital	1.323	73	(22)	(46)	(47)	(47)	(48)	(45)	(39)	(39)
FCFF	8.501	10.244	10.561	10.729	10.924	11.122	11.324	11.587	11.754	12.001
Discount Factor	1,000	0,909	0,826	0,751	0,682	0,620	0,563	0,512	0,465	0,423
Discount Cash Flow	8.501	9.310	8.723	8.053	7.451	6.895	6.380	5.932	5.469	5.075

Explicit Value	71.788	52,7%
Terminal Value	64.414	47,3%
Value Unlevered (Vu)	136.201	

#### Appendix 16 – Magazines Valuation

(Thousands of Euros)										
FCFF	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
EBIT	159	139	185	149	103	56	8	(33)	3	40
Tax rate	29,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%
Taxes on EBIT	47	38	51	41	28	15	2	(9)	1	11
EBIT(1-T)	112	101	134	108	74	40	6	(24)	2	29
+Depreciation	112	112	114	115	117	119	121	123	126	128
-Capex	117	116	118	120	122	124	126	128	135	139
-ΔNet Working Capital	317	21	(6)	(13)	(13)	(13)	(13)	(12)	(11)	(11)
FCFF	(210)	76	136	116	83	49	14	(17)	3	29
Discount Factor	1,000	0,909	0,826	0,751	0,682	0,620	0,563	0,512	0,465	0,423
Discount Cash Flow	(210)	69	112	87	56	30	8	(9)	2	12

Explicit Value	158	50,3%
Terminal Value	156	49,7%
Value Unlevered (Vu)	315	

#### Appendix 17 – Tax Shields

(Thousands of Euros)										
Tax Shields	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Debt	82.136	74.961	66.983	60.465	53.836	46.978	39.803	32.264	24.417	16.135
Financing costs	2.623	3.663	3.242	3.087	3.106	2.899	2.500	2.026	1.533	1.013
Tax rate	29,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%	27,5%
Tax shield	774	1.007	891	849	854	797	687	557	422	279
Rd	3,2%	4,9%	4,8%	5,1%	5,8%	6,2%	6,3%	6,3%	6,3%	6,3%
Discount factor	1,000	0,953	0,910	0,861	0,799	0,741	0,694	0,653	0,614	0,578
PV of tax shields	774	960	811	731	682	591	477	364	259	161

PV of Tax Shields	9.649
Terminal Value	3.838
Explicit Value	5.810

## Appendix 16 – Cost of Financial Distress

(Thousands of Euros)	0	1	2	3	4	5	6	7	8	9
Cost of Financial Distress (CFD)	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Vu Newspaper	136.201	140.516	143.346	146.111	148.969	151.900	154.906	157.992	161.099	175.240
Vu Magazines	315	577	552	457	375	322	301	316	366	425
Vu	136.516	141.093	143.898	146.568	149.345	152.222	155.207	158.308	161.464	175.665
%CFD	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Cost Of Financial Distress	31.399	32.451	33.097	33.711	34.349	35.011	35.698	36.411	37.137	40.403
EBIT	13.929	14.211	14.561	14.720	14.939	15.161	15.388	15.711	16.113	16.525
Interest Expense	2.623	3.663	3.242	3.087	3.106	2.899	2.500	2.026	1.533	1.013
Interest Coverage Ratio	5,31	3,88	4,49	4,77	4,81	5,23	6,16	7,75	10,51	16,31
Rating	А	A-	А	А	А	А	A+	AA	AAA	AAA
Default Propability - P(D)	0,92%	0,93%	0,92%	0,92%	0,92%	0,92%	0,07%	0,54%	0,00%	0,00%
Kd	3,19%	4,89%	4,84%	5,11%	5,77%	6,17%	6,28%	6,28%	6,28%	6,28%
Discount factor	1,000	0,945	0,894	0,839	0,772	0,710	0,691	0,630	0,614	0,578
PV of Cost of Financial Distress	289	285	272	260	244	229	17	124	-	-

Explicit Value	1.720
Terminal Value	-
The PV of CDF	1.720

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