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MASTERS FINAL WORK

PROJECT

EQUITY RESEARCH - COFINA SGPS

LOURENÇO PEREIRA BRANCO DE SOUSA COUTINHO

OCTOBER 2015

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Resumo

A Cofina SGPS é actualmente uma das maiores e mais prestigiadas empresas a exercer actividade no sector dos Media em Portugal. Fundada em 1995 e cotada em bolsa desde 1998, a Cofina começou por ser uma holding que geria várias participações nos mais diversos ramos de actividade, desde os media, pasta de papel, metais entre outros. No entanto, em 2005 foi realizado um *spin off* das suas participações, tendo esta ficado apenas associada á área dos media, sobretudo na edição, impressão e publicação de jornais e revistas. A Cofina é também reconhecida pela sua forte e sólida capacidade de gestão, o que levou a empresa á liderança de vários segmentos do mercado dos media em Portugal, através de um portfolio eficiente e equilibrado de publicações.

O principal objectivo deste projecto de Equity Research é determinar o valor intrínseco das ações da Cofina, através de uma análise detalhada da performance da empresa nos últimos anos e também através de uma análise fundamentada da evolução futura do sector dos media em Portugal. A avaliação da empresa foi baseada no método dos *Free Cash Flows to the Firm* e no *WACC*, uma vez que foi considerado o mais adequado ao longo do desenvolvimento da Revisão Literária. Não obstante, realizámos também uma Relative Valuation de forma a complementar a avaliação.

Com base nos resultados obtidos, foi possível verificar que as ações da Cofina no dia 31 de Dezembro de 2014 estavam subvalorizadas. De acordo com as nossas estimativas, as ações estavam a ser transacionadas a um preço de €0,47, abaixo do valor intrínseco de €0,55, o que representa um potencial de valorização de 17%. Desta forma, a recomendação para qualquer investidor interessado na Cofina é de **compra**.

Palavras-chave: Sector dos Media, Equity Research, Avaliação, Free Cash Flows to the Firm, WACC, Relative Valuation.

Abstract

Cofina SGPS is currently one of the largest and prestigious companies operating in the Portuguese Media & Publishing sector. Founded in 1995 and publicly listed since 1998, Cofina was a Portuguese holding group of several companies operating in many different sectors and business areas, such as media, pulp, steel between others. However in 2005, there was a spin-off of its holdings and the company remained only associated to the media printing and publishing sector, namely newspapers and magazines. Cofina is also known for its strong management track record, which has driven the company to the leadership of the main media segments in Portugal, through an efficient and balanced portfolio.

The main goal of this Equity Research project is to determine the intrinsic value of Cofina stocks, through a detailed analysis of the company performance in the last couple of years and also through an accurate prospection of the media market for the future. The valuation of the company was based on the Free Cash Flows to the Firm and the WACC methodology which was considered the most suitable for the company according to the literature review. In addition, we also performed a Relative Valuation to complement our analysis.

Based on the results obtained, it was possible to verify that Cofina SGPS stocks on 31/12/2014 were undervalued. According to our estimates, the stocks were being traded at €0.47, below the intrinsic value of €0.55, which represents a potential appreciation of 17%. Thus, we provide a **buy** recommendation to any investors interested into invest in Cofina.

Keywords: Media & Publishing sector, Equity Research, Valuation, Free Cash Flows to the Firm, WACC, Relative Valuation.

Preface

The conclusion of this Master thesis project represents the end of a very important path of my academic life and the beginning of a new one, which would not be possible without the contribution of the ones who were present to help me along this journey. Thus, I would like to express my deep gratitude to all of them.

Particularly to Professor Inês Pinto for all the support, patience and availability during the supervision and guidance of this project; to all my family especially to my dear mother Rita Lacerda e Mello for all the love and care not only during this project but also since the day I was born; and finally to all my colleagues and friends, in particular to Francisca Simões de Almeida for all the positive energy transmitted on the most difficult moments.

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List of Terms and abbreviations

APV - Adjusted Present Value

BoP - Bank of Portugal

CAGR - Compounded Annual Growth Rate

CF - Cash Flows

DCF - Discounted Cash Flow

DDM - Dividend Discount Model

DPS - Dividends Per Share

EBIT - Earnings Before Interest and Taxes

EBITDA - Earnings Before Interest and Taxes, Depreciations and Amortizations

EV - Enterprise Value

FCFE - Free Cash Flow to Equity

FCFF - Free Cash Flow to Firm

g - Growth rate in perpetuity

GDP - Gross Domestic Product

Kd - Cost of debt

Ke - Cost of Equity

Ku - Unlevered Cost of Equity

NWC - Net Working Capital

OPM - Option Pricing Models

PV - Present Value

PwC - PricewaterhouseCoopers

Rf - Risk Free

RV - Relative Valuation

WACC - Weighted Average Cost of Capital

1. Introduction

This Equity Research is submitted in part fulfilment of the requirements for the degree of master in finance at ISEG Lisbon School of Economics & Management. The main goal of this project is to estimate the price target of Cofina stock and based on these results, we aim to provide an adequate investment recommendation. Cofina is currently one of the Portuguese media and publishing market leaders, listed since 1998 in the Euronext Lisbon. During the last 20 years, the company has shown solid growth and sustained results due to a competent management performance.

The project is divided in four essential sections, the literature review where we will discuss and present some of the most common tools used to value a firm. The second section presents the history of Cofina, where you can find an explanation of the core business and an analysis of the financial framework and strategy, which also includes a deep analysis of the Portuguese media sector. The third section was dedicated to the valuation process where you can find the methodology discussed in the literature review applied to our company, and the last one is composed by the conclusions which were based on the results obtained.

According to Professor Aswath Damodaran the key point to value any firm successfully, lies on our capacity to "understanding not only what value is but also the sources of value" (Damodaran, 2002a).

2. Literature Review

Valuing a company is one of the most important tasks of all financial analysts, consultants, and managers. It provides not only the pillars for their decision to buy or sell a company, but it is also a very important tool for a solid management and successful restructuring (Meitner, 2006).

According to Damodaran valuation plays many roles in many different areas such as portfolio management, mergers and acquisitions and corporate finance. However in all of those areas, the key to success lies on the capacity to combine the quantitative and qualitative information of an asset, and in the accuracy to determine how much it is going to be worth in the future (Damodaran, 2007). To perform a realistic valuation, it is necessary to rely on data, thoughtful analysis and in the deep understanding of the competitive dynamics of the industry (Koller et al, 2010).

When we are valuing a company it is not possible to define a unique formula, there are several "perspectives on value that serve as the foundation for the variety of valuation models and techniques available" as we are going to see along the literature revision (Pinto et al, 2010).

2.1 Valuation Methods

Analysts can use a wide range of models to value an asset, ranging from the more simpler to the more sophisticated. Each model has its different assumptions, however they all share some common characteristics in general terms (Damodaran, 2012).

We can divide valuation in three different approaches, the Discounted Cash Flows valuation methods, the Relative valuation methods and finally the Contingent claim valuation methods (Damodaran, 2002a).

2.1.2 Discounted Cash Flows

As stated by (Damodaran, 2002b), the DCF's valuation methods "are the foundation on which all other valuation approaches are built", in order to correctly perform all other valuation methods we need to understand its fundamentals.

The DCF methods seek to reach the company's value by estimating the cash flows it will generate in the future and then discounting them at a discount rate matched to risk of those flows (Fernández, 2001).

[1] $$V = \frac{CF_1}{1+k} + \frac{CF_2}{(1+k)^2} + \frac{CF_3}{(1+k)^3} + \ldots + \frac{CF_n + VR_n}{(1+k)^n}$$

Where, CFi represents the cash flows generated by the company in period i, Vn is the terminal value on year n, and k is the appropriate discount rate. The formula seems to consider only a temporary duration for the flows, but that is not necessarily true since the company's residual value in year n can be calculated by discounting future flows after that period. The procedure for a non-defined duration consists in assuming a constant perpetual growth rate (g) for future flows after year n.

[2] $$VR_n = CF_n\,(1+g) / (k-g).$$

Although flows may have an indefinite duration, it is acceptable to ignore their value after a certain period, since their present value starts to decrease progressively and due to the fact that some businesses lose their competitive advantage after a few years (Fernández, 2001). Based on this, in order to determine future flows for a more accurate valuation, analysts often create forecasts by extending financial statements into the future but only till a certain period from 5 to 10 years (Steiger, 2008). However, all analysts must be aware that the DCF methods require a large amount of predictions about the business and realistic assumptions about the economy in general, "minor changes will result in large differences in the company's value. The model is highly dependent on the validity and quality of the data used as an input". However if used correctly, DCF methodology is a "powerful valuation tool to evaluate many assets and also to analyze the effects that different economic scenarios have on companies' values" (Steiger, 2008).

There are "thousands of DCF methods in existence", although based on Damodaran (2002), we can divide the discounted cash flow models in two main dimensions, i) Equity Valuation and ii) Firm Valuation.

2.1.1.1 Equity Valuation

This dimension only considers the "equity stake" of the firm. The market value of a company's equity, is obtained by discounting the expected cash flows to equity at the cost of equity (Ke), which corresponds to the rate of return required by equity investors in the firm (Damodaran, 2002b), (Fernández, 2001). According to Steiger (2008) the most common approaches used to value the company's equity are the Dividend Discount Model (DDM) and the Free Cash Flows to Equity (FCFE).

Dividend Discount Model

The first formal derivation of the DDM was written by John Burr Williams (1938), and later revised by Gordon (1962), which is now known as the Gordon Model (Berk & DeMarzo, 2014). The Gordon Model is the most common DDM used in practice, which assumes that the firm's dividends grow at a stable rate, and the value of a common stock can be defined as the "present value of the future dividend stream in perpetuity" (Damodaran, 2002b);(Farrell, 1985). Which can be represented by the following formula, where the DPS_1 corresponds to the expected dividends per share one year from now, Ke is the cost of equity and g is the perpetual dividends growth rate.

[3] $$\text{Value of Stock} = \frac{DPS_1}{k_e - g}$$

By assuming a constant perpetual growth rate for the firms dividends, the Gordon Growth Model is very convenient and efficient for use in estimating the value of stable and mature companies (Farrell, 1985). However, it is extremely sensitive to the inputs for the growth rate. If used incorrectly, can lead us to misleading and absurd equity valuation results (Damodaran, 2002b).

Free Cash Flows to Equity

The FCFE model is very similar to the DDM, however instead of taking into account actual dividends this equity model computes de firm value by discounting potential dividends. Basically, the FCFE model is a variant of the DDM, where dividends are replaced by free cash flows to equity (Damodaran, 2002b).

[4] ***FCFE = Net Income - (Capital expenditures - Depreciation) - (Change in Non-cash Working Capital) + (New Debt Issued - Debt Repayments)***

The FCFE represent the cash flow available, to be paid out in dividends or stock repurchases, after all company expenses (Damodaran, 2002b). According to Damodaran, there are three main FCFE models, the constant growth model which is suitable for firms that are growing stable, the two staged model which is suitable for a company which is expected to grow faster than a stable firm in the first period and then will stabilize, and the three staged model which is more appropriate to value companies with very high growing rates, however this model will not be considered in this project since it considers three stages of growth which makes the model more volatile and variable dependent which can lead us to a higher probability of a misleading equity valuation. So by the principle of parsimony, we will only consider the first two FCFE models.

i) Constant growth model

The value of the stock today (P_0) is computed by discounting the expected FCFE of next year in perpetuity. Considering the appropriate Ke and growing rate in perpetuity (g).

[5] $$P_0 = \frac{FCFE_1}{k_e - g_n}$$

ii) The Two-stage FCFE model

The value of the stock is the PV of the future FCFE plus the PV of the terminal value.

[6] $$\sum \frac{FCFE_t}{(1+k_e)^t} + \frac{P_n}{(1+k_e)^n}$$

Basically, the main difference between the DDM and the FCFE lies in the cash flows specification, the first uses as cash flows the expected dividends on a stock, and the second uses what is left after meeting all financial obligations and investment needs (Damodaran, 2002b).

. Cost of Equity (Ke)

In line with (Damodaran, 2002b), the Ke is the rate of return that investors require for holding part of the firm's equity. It cannot be seen directly in the market, however it is possible to determine it. Most of the financial analysts recommend the use of CAPM (Capital Asset Pricing Model), which is considered to be a simple and efficient approach to relate risks and returns.

The general idea behind the model is that investors should be compensated in two ways, time value of money which measures the compensation for placing money in any investment over a period of time, and the additional risk taken (McKinsey & Company, Copeland, Koller, & Murrin, 2000). Basically, CAPM is a model that establishes the equilibrium between the price of the security and its risk through three variables: Risk free rate (Rf), Beta of securities (β), and the expected market return E(Rm).

[7] $$Ke = Rf + \beta\,(E(Rm) - Rf)$$

. Risk Free Rate (Rf)

Relying on (McKinsey & Company et al., 2000), the Rf rate is the return obtained from a security that has no default risk, no reinvestment risk and is also completely

uncorrelated with the market risks and returns. Most of the analysts measure the expected returns of risky assets relative to the risk free rate, the difference between both is called the **risk premium**. Damodaran states that an asset is risk free if we are certain about the expected returns, which means that the actual return is always equal to the expected return. In practice, the most approximate risk free instruments in the market are government securities, because they control the printing of currency. Since we are performing a long term valuation, the most adequate Rf rate would be a solid long term government bond yield (Damodaran, 2002b).

.Beta (β)

The Beta measures the systematic or market risk of a stock. It indicates the sensitivity of the returns of a company's share to the market movements (Fernández, 2001). Based on Damodaran's literature, the Beta of an asset is linearly related with the expected returns of an asset, so according to the CAPM it can be computed by the following linear function where Beta (βi) corresponds to the slope of the regression.

[8] $$E(R_i) = R_f + \beta_i (E(R_m) - R_f)$$

Other way to compute the Beta, which can be more simpler, consists into consider the historical returns of the company and its respective market returns (Fernández, 2003). As we can see by the following formula it is possible to calculate the β by establishing a relationship between both figures.

[9] $$\beta_i = \frac{Cov(r_i, r_M)}{Var(r_M)}$$

2.1.1.2 Firm Valuation

This approach to valuation pretends to value the entire firm, instead of valuing only the Equity part of the company. According to Damodaran (2002b), there are two ways to

perform a total firm valuation, one by discounting the cumulated cash flows to all claim holders in the firm by the weighted average cost of capital (Free cash flows to the Firm), and the other by adding the marginal impact of debt to the firm unlevered value (Adjusted Present Value).

Free Cash Flows to the Firm (FCFF)

According to Steiger (2008), FCFF are the cash flows available to the debt-and-equity holders of the firm, after covering fixed asset investments and working capital requirements. They can be computed by considering the cash flows to the claimholders, the cash flows to the lenders and also the cash flows to preferred stockholders. However, this would be a complex process and could lead us to misleading results, so based on (Damodaran, 2002b), we can use a simpler way to compute it.

[10] ***FCFF = EBIT(1-tax rate) + Depreciation - Capital Expenditure - Δ Net Working Capital***

Then the value of the firm, that reaches a solid state after n years and is now growing at a stable rate g, is the PV of the FCFF discounted at the Weighted Average Cost of Capital (Damodaran, 2002b).

[11] $$\text{Value of Firm} = \sum_{t=1}^{t=n} \frac{\text{FCFF}_t}{(1+\text{WACC})^t} + \frac{[\text{FCFF}_{n+1} / (\text{WACC} - g_n)]}{(1+\text{WACC})^n}$$

According to Berk & DeMarzo (2014), this methodology is more adequate for companies with target debt-to-equity ratios, and constant capital structures overtime. Otherwise, we would have to re-calculate the WACC every time that the firm's capital structure changes.

The **WACC** is a tax adjusted discount rate, planned to pick up the value of interest tax shields that come from using an operation's debt capacity. The best virtue of WACC is

that keeps the calculations in discounting more simple, however as it was referred before, it is only suitable for companies with stable capital structures (Luehrman, 1997). Relying on the CAPM, the WACC is calculated by weighting the Ke and the cost of debt (Kd), taking into account the financial structure of the company, plus the tax effect over the cost of debt.

[12] $$WACC = \frac{E}{E+D} \times Ke + \frac{D}{E+D} \times Kd \times (1-t)$$

.Cost of Debt (Kd)

In line with (McKinsey & Company et al., 2000), the Kd is the market interest rate demanded by the bondholders. Basically, is the rate that the company would have to pay on new debt issuance in order to pay its investment projects, according to the financial literature firms with higher default risk will have a higher cost of debt.

When a "firm has long term bonds outstanding that are widely traded", we can use yield of the last bonds issued to estimate the cost of debt. However many firms have bonds outstanding that are not traded on a regular basis, in those cases to determine the Kd we can use their ratings which are directly associated with their default spreads. On the other hand, if we have no ratings available, there are two ways to estimate the cost of debt, one is based on the borrowing history of the company by looking to the spreads charged by the banks, the other is to calculate a synthetic rating based on financial ratios, and also by looking to the ratings of some comparable firms operating in the same industry (Damodaran, 2002b).

Adjusted Present Value (APV)

In accordance with Luehrman (1997), the APV method lies on the principle of "value additivity", which means that the analyst will separate the valuation process in different parts, valuing each of them, and then add them. Aswath Damodaran states that this

method requires three steps, first valuing the unlevered firm (no Debt) by discounting the FCF's at the unlevered Cost of Equity (Ku); the second step, assuming that the company is financed with debt, is to calculate the expected tax benefit (ITS- Interest Tax Shield) from a certain level of debt, and third we need to compute the bankruptcy costs based on the firm's debt level.

[13] ***APV = Vu + PV(ITS) - PV(Expected Bankruptcy costs)***

The APV method is a more complete approach to determine the value of a firm, however it is much more complex than the cost of capital approach, because the WACC considers all the "pieces" of the firm together (Luehrman, 1997).

.Unlevered Cost of Equity (Ku)

To compute the value of the unlevered firm (Vu) using the APV method, we need to discount the FCF's at the unlevered cost of equity (ku) which is also known as unlevered cost of capital. There are two ways to compute it, one is using an adapted version of the CAPM but considering the unlevered Beta instead of the levered, and the other is by the pre-tax WACC, which means without considering the tax effect over debt (Berk & DeMarzo, 2014; Luehrman, 1997). This last approach is only accurate if the company has a target debt to equity ratio.

[14] ***Ku = Rf + βu (Rm-Rf)***

[15] $$r_{WACC} = \frac{E}{E+D} \times Ke + \frac{D}{E+D} \times Kd$$

2.1.2 Relative Valuation

The main goal of the RV methodology is to find the value of an asset based on how similar assets are currently priced in the market. When performing an RV, there are two essential steps, first prices need to be standardized, by converting them into multiples. Secondly, the analyst must find the most appropriate comparable firms, this step is

crucial and complex since each firm has its own identity, and even being operating in the industry they may differ on risk (Damodaran, 2012).

When choosing the comparable firms we must take into account the size of the company, the industry, technology and also the use of identical accounting principles (Neves, 2002).

As mentioned before the prices must be converted into multiples, which according to Fernández (2001) can be divided in three main dimensions, total approach which takes into account multiples based on the total Enterprise value of the company (E+D), Equity approach which considers only multiples based on equity, and the growth reference multiples, which by the principle of parsimony will not be considered in this project.

Total Approach based multiples	Equity approach based multiples
.EV to EBITDA	.Price Earnings ratio (PER)
.EV to EBIT	.Price to Book value (PBV)
.EV to Sales	.Price to sales (P/S)

.Table I: Relative valuation multiples, source: Fernández, 2001

The RV method, is probably the most widely used valuation technique by the analysts, first because it's based just on a few number of assumptions, secondly it's easier to understand by the audience, and third because its more capable to reflect the "mood of the market", in fact generally the RV leads us to closer market price values than the DCF's valuation methods (Damodaran, 2002a).

2.1.3 Contingent Claim Valuation

According to Damodaran, the essence of option pricing models is that DCF models tend to ignore the payoffs provided by the "occurrence of an event". Option pricing models are able to capture the value of "managerial flexibility" and also the uncertainty related

with a certain business, in a way that DCF models are not capable of (Copeland & Keenan, 1998).

This methodology takes into account opportunities that might come up with the implementation of new projects, new products or new markets. The most common OPM to value an asset are the Black-Scholes model and the Binomial model, however these two models require a lot of inputs and variables, which makes them less intuitive and also more likely to generate estimation errors. Besides, they are not applicable in some cases, since they are highly dependent on the company's financial capacity (Luehrman, 1997). As a result, this methodology will not be considered in this project.

3. COFINA, SGPS, S.A.

3.1 The Group

Founded in 1995 and publicly listed since 1998 (Euronext Lisbon), Cofina was a Portuguese holding group of several companies operating in many different sectors and business areas, such as media, pulp, steel between others. However in 2005, there was a spin-off of its holdings and the company remained only associated to the media printing and publishing sector, namely newspapers and magazines.

Along the twenty years of Cofina's history, it is important to highlight some major events, such as the acquisition of Investec in 1999, the acquisition of *Correio da Manhã* in 2000, the launching of daily free newspapers (*Metro e Destak*) in Portugal and Brazil between 2007 and 2011, and finally the creation of the TV cable channel *CMTV* in 2013, giving birth to the operating activity in the television sector. Today Cofina is one of the leading players in the Media and Publishing industry in Portugal, and one of the major companies listed in the general PSI stock index, with a market capitalization of €48,21 million at the end of 2014.

3.1.2 Portfolio

Currently Cofina has a very diversified portfolio composed by one TV cable channel, six magazines and five newspapers, which are available not only in paper but also in digital format through online publications, covering a wide range of segments (news, economy, fashion, sports...).

.Newspapers

In the newspapers segment, the focus goes to *Correio da Manhã*, which according to the APCT (Associação Portuguesa para o Controlo de Tiragem) was the most sold daily paid newspaper in Portugal in 2014, registering an average daily circulation of 109,000 copies, and a market share of 52.8%. This portfolio also counts, with the economic newspaper *Jornal de Negócios*, which was in 2014 leader in the digital paid circulation within the economic segment, the sports newspaper *Record* market leader in the sports segment with over 800,000 readers per day in addition to the free newspapers *Destak*, *Metro* and *Destak Brasil*, which recorded respectively an average of 400,000, 450,000 and 700,000 readers per day in 2014. Cofina considers the TV cable channel *CMTV* as part of the newspaper segment since is directly linked with the *Correio da Manhã* journal.

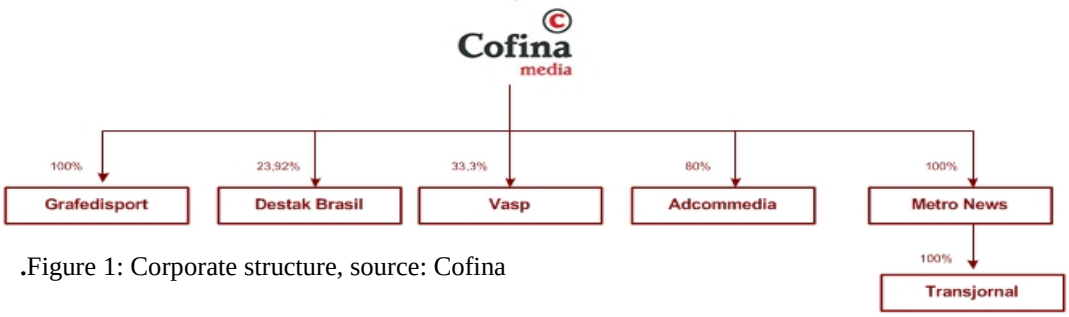
.Magazines

In the magazines segment, the main focus goes to the weekly magazine *Sábado* which in 2014 was leader in sales, selling around 32,480 copies per edition, and registering market share of 54% (52% in 2013) on the news magazines segment. Cofina's portfolio is also composed by the weekly magazines *Flash*, which sold an average of 34,718 copies per edition, and *TV Guia* which was the only television publication to register a positive sales evolution comparing to 2013, with an average of 67,062 copies sold per week (2.8% more than in 2013). In the monthly publications, we have the fashion

magazines *Máxima* which registered a value of 60,000 copies sold per month in 2014, and also Vogue and GQ registering together sales around 30,000 copies per edition in 2014.

3.1.3 Corporate Structure

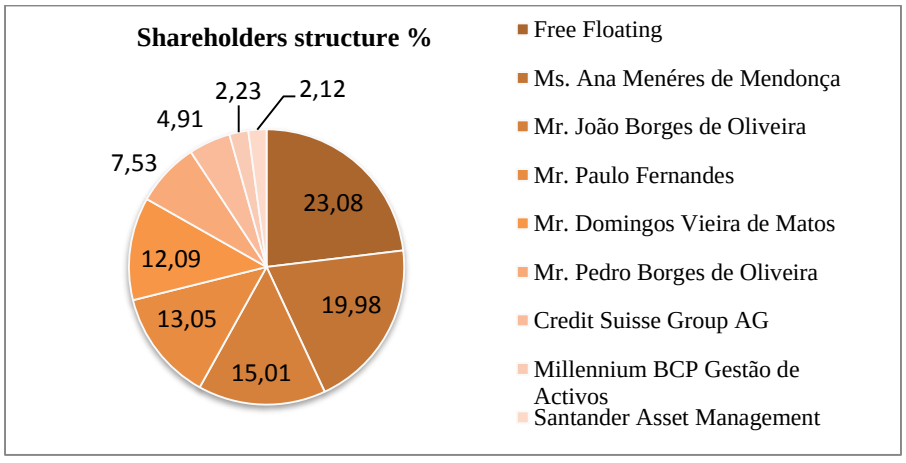
The key subsidiary company of the group in the media and publishing sector is known as Cofina Media, which holds much participation in a variety of firms that sustain the vast number of publications mentioned before, as showed in the next figure.



.Figure 1: Corporate structure, source: Cofina

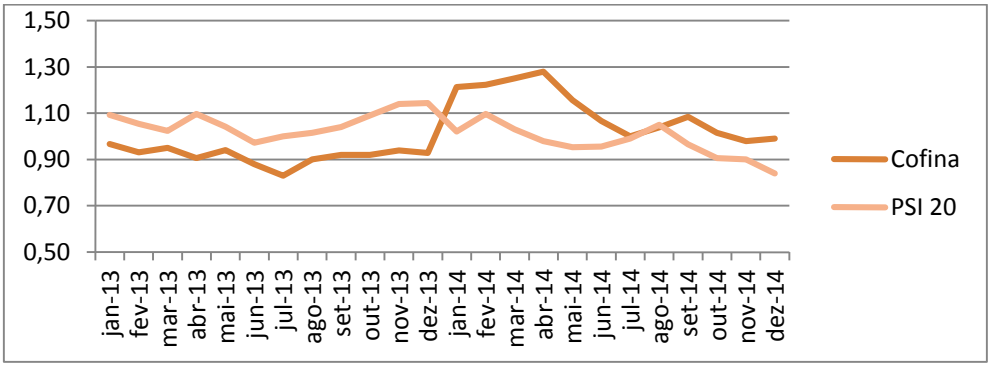
3.1.4 Shareholders Structure

Regarding the shareholders structure, there is only information available, in the company financial report (2014), about the shareholders with a percentage of the share capital with voting rights between 2% and 20%. With Ms. Ana Mendonça being the major shareholder, holding about 20% of the company through Promendo-SGPS, Mr. Domingos Matos through Livrefluxo-SGPS, Mr. Paulo Fernandes through Actium Capital-SGPS, and Mr. João Oliveira through INDAZ, S.A.



.Figure 2: Shareholders structure, source: Cofina

3.1.6 Stock Market Performance: Cofina vs PSI 20 Index



.Figure 3: Stock market performance, source: Bloomberg

The year of 2013 was marked by good performance of the Portuguese stock market index, registering valuation of about 5.7% between January and December. Especially in second half of the year, with the PSI 20 advancing about 15% from July till the end of the year. On the other side, Cofina underperformed the benchmark, with the stock price falling about 14% since the beginning of the year, reaching a maximum transaction price of €0.607 and minimum of €0.398. According to the company financial report, there were traded 86,403,650 stocks during the year, which is equivalent to 84% of the issued capital. However in 2014 the Portuguese market registered a worse performance, registering a fall of 28% yoy in December of 2014, while Cofina had a softer fall of 5.8% in the same period, over performing the reference index. According to the financial reports of the company, Cofina's stocks were traded on a maximum price of €0.75 and a minimum price of €0.472. In total, there were traded 92,516,149 shares, which is equivalent to 90% of the issued capital.

3.1.5 Financial Framework

In table II (appendix 1), we may take an overlook of the main financial ratios and performance indicators of Cofina between 2012 and 2014, which were used in order to perform this analysis. In order to perform a complete financial analysis of a company, any analyst must take into account the historical performance of the company, and some

key performance indicators both focused on a short-term and long-term periods (Santos Pinho & Tavares, 2012).

Regarding the operating revenues of Cofina, it's important to refer that in both segments

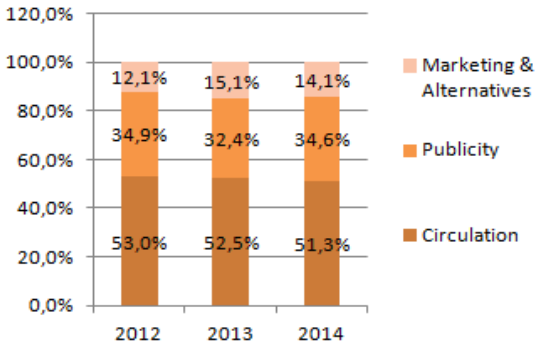


Figure 4: Total Revenues weights, source: Cofina

newspapers and magazines, they are divided in three main categories, circulation which corresponds to the total amount earned from sold publications per edition, publicity revenues, and alternative marketing products and others which include all revenues from add-ons, such as books, CD's, videos, between others. With the circulation revenues representing the core business of the company (see figure 4), however they have been decreasing in the last 3 years as it will be explained further on.

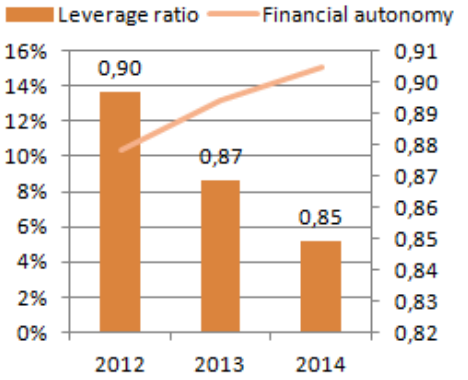
In table II (appendix 1) we may notice that the operating revenues of the company have been falling in the last three years, from 2012 to 2013 the total revenues registered a fall of 5%, mainly impacted by the magazines segment which registered a sharp fall of about 15%. The most impacted sector was the publicity falling 11.9% in the journals segment and 21.5% in the magazines, mainly due to the impact of the world economic crisis on the companies publicity budgets[1], on the other side denying the trend the alternative marketing products registered a rise of 19%. From 2013-2014 the company registered a softer fall of 1.5%, impacted by the falls in the circulation and marketing products, however the publicity registered an increase of 5.4% boosted by the soccer world cup in Brazil which took place in June. It is also important to notice that the circulation revenues have been decreasing in the last years of exercise, which according

[1] Source: PricewaterhouseCoopers, Portugal Entertainment and Media Outlook: 2013-2017

the PwC Media Outlook was due to the increasing number of online readers. The EBITDA followed the tendency of the revenues, decreasing about 2% from 2012 to 2014, the decrease was slower than the revenues mainly due to the ability of the company to reduce the operational costs, however they continue to suppress a big part of the revenues, in 2014 they represented around 85% of the total revenues, which according to Cofina's financial reports reflects the strong operational leverage of the company, justified by the constant improvements to reinforce efficiency. If we note in table II (appendix 1) the gross margins of the company are actually very competitive, but when looking to the operating margins the effect of the operational costs is evident. When looking to the operational income (EBIT), it decreased 7.6% from 2012-2013, however in the period of 2013-2014 it recovered by registering an increase of 7.8% boosted by a 24% reduction in the amortizations, resulting from the end in the amortization period of some printing equipment[2]. Regarding the total net profits of the company Cofina was able to define an increasing tendency in the last 3 years, with the net income increasing about 55% between 2012-2014, especially due to a effective tax reduction in the last 3 years. In the last years Cofina was also able to generate profits through the shareholders invested capital with the ROE increasing 3% from 2013-2014, on the other hand by analysing the ROA we may note that the company could improve its capacity to generate results through its assets, especially through the goodwill of the company which is the most valuable asset of Cofina, supported by the several number of participations and segment leading products. Nontheless, Cofina is doing some improvements since the ROA shows an increasing trend followed by the asset turnover which is also increasing constantly in the last 3 years.

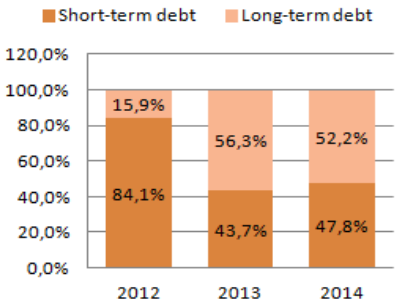
[2] Source: Cofina financial reports, 2014

Figure 5: Financial Structure, source: Cofina



Proceeding with the financial framework of Cofina, is important to analyse the structure of the company which has been changing in the last 3 years especially regarding debt. As we can see in figure 5, Cofina is highly dependent on borrowed funds to finance its activity, presenting a very low financial autonomy (lower than 20%) which automatically leads to a high leverage ratio and to a higher probability of failing its debt obligations as it may be seen by the solvency ratio results of the company (appendix 1). Even with the Cofina's effort in the last 3 years to reduce its debt burden the company still has a leverage ratio higher than 80%, which means that the assets of the company are mainly financed by debt. Regarding the debt to equity ratio, we reach the same conclusions, there is not an equilibrium between the equity and borrowed capital.

Figure 6: Debt Structure, source: Cofina



Focusing on the debt structure (figure 6), by analysing the leverage structure from 2012-2014, we conclude that the long-term debt increased sharply, mainly due to the issuance of a €50,000,000 bond loan in the end of 2013, according to the financial reports of the company this loan was to reimburse a previous one and to extend the debt maturity profile. On the other hand, in the same period Cofina was able to reduce the short-term debt, mainly by the amortization of some short term credit, namely commercial paper. Based on Santos Pinho & Tavares (2012), a debt structure based mainly on short term capital may lead to liquidity problems and to situations of financial imbalance. So we conclude that the company measures taken in order to change its debt structure profile were constructive, with the liquidity indicators

improving as we can see in table II (appendix 1) as the NWC and the quick, cash and current ratios all increasing from 2012 to 2014, plus indicators related with the activity, specially the cash conversion cycle which is now at a 3 years minimum, meaning that less resources need to be allocated to the exploration, therefore the greater the potential for wealth generation.

4. Macroeconomic Outlook

The year of 2014 was marked by a growth stagnation in most of the global economies, mainly impacted by several geopolitical tensions around the globe and low growth projections for both advanced and emerging market economies. According to the BoP, along the year Portugal has shown some signs of recovery, denying the global trend, economic activity registered an 0.9% growth after three years of consecutive falls. In 2014, Portugal was able to conclude with success the financial and economic assistance programme, mainly due to the domestic demand pick-up which assumed an essential role in the GDP increase. Even though, the exports growth was lower than in 2013, standing below the external demand growth for Portuguese goods and services. It is also important to refer that the growth of the economy activity was followed by a decrease in unemployment, according to the BoP the unemployment rate decreased about 2.3%, however it still remains at high levels. Regarding inflation, the country has followed the negative tendency of most of the Euro area economies, mainly impacted by the oil prices sharp fall.

For 2015, the Citigroup predicts a moderate continuation of the Portuguese economic recovery followed by a gradual adjustment of the macroeconomic imbalances, with the BoP forecasting an 1.9% growth for the GDP. This growth will be mainly sustained by the exports increase and investment acceleration. However, it is predicted a private

consumption deceleration, and domestic demand will be pressured by the high debt levels of the private and public sectors.

In Global terms, the Citigroup believes that the JPY and the EUR depreciation together with the sharp oil prices fall will not be enough to offset the legacy of the financial crisis in many countries, being highly recommended to most of the Central Banks to apply economic stimuli policies to sustain growth for the future. According to the Global Economic Outlook and Strategy report, in 2015 growth prospects will be in favour of the Euro area and Japan, and away from prior outperformers, such as the US and UK, and most of emerging markets. To have a general overview of some Portuguese macroeconomic KPI's check the table III in appendix 2.

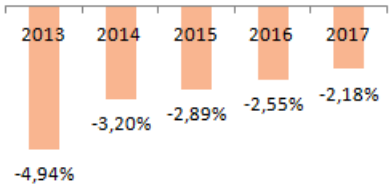
5. Entertainment & Media Industry Overview[3]

According to the PwC Entertainment & Media outlook, although the traditional non-digital ways of media still represent most of the E&M industry spending, in the next years this pattern will change, PwC believes that growth will be definitely in the digital segment. This way, if Cofina wants to take advantage of the E&M sector trends in order to achieve competitive advantage it will have to adopt a constant innovation strategy in terms of products and services, and also to create a business plan focused on the consumer's necessities. This boost in the digital market segment is highly related with the increasing prospects for the fixed and mobile internet users for the next years. Based on the E&M outlook, the fixed broadband penetration levels in Portuguese houses were 43% in 2012 and are believed to cover around 59% of the houses in 2017. When it comes to mobile broadband, forecasts are also positive, with the increasing number of tablets and mobile phones with access to the internet, PwC believes that almost 75% of

[3] The Brazilian E&M industry was not subject of a specific evaluation in this project because according with Cofinas' financial statements it does not represent a significant part of the company activity.

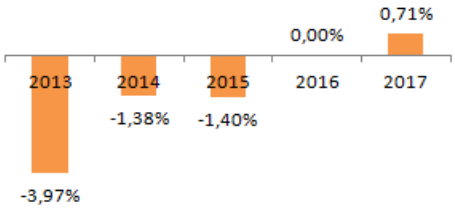
the Portuguese population will have access to mobile broadband in 2017. This internet boom is changing the well-known traditional media, the digital era is completely revolutionizing the media contents since they are gradually leaving the paper format for the digital one due the consumer's necessity to have a quickly and easy access to information. Focusing on the newspapers segment in Portugal, according the PwC outlook the recent economic crisis left this segment in a very delicate position, printing runs are decreasing sharply in the recent years, according to PwC the newspapers paper circulation will register a CAGR[4] of -5.2 % from 2013 to 2017, as well as the publicity in paper editions which is expected to decrease at a CAGR of -3.3% till 2017. Other major drawback is that most of the printing and publishing companies are struggling to get credit and state support for this sector is very low. However, PwC believes that this segment has some potential to grow in the future if companies are able to take advantage of the digital era. This way, the solution will be on the online services namely throughout online newspaper's circulation with paywalls and digital publicity, based on the PwC estimates digital publicity and digital newspapers circulation will register an CAGR of 11.4% and 35.4% respectively between 2013 and 2017, but as mentioned before digital revenues both in terms of circulation and publicity still represent a low piece of the pie, due to this situation the newspapers Portuguese market will face some obstacles in the next couple of years. For the periods after 2017 since we have no information available in the PwC's E&M report, we had to rely on the Millennium investment banking media report estimates for 2017-2020, which considers a CAGR of 1% for the newspaper's circulation revenues and a CAGR of 1.5% for the publicity revenues of the company.

Figure 7: Portugal newspaper's circulation and publicity revenues growth, source: PwC



[4] CAGR - Compounded Annual Growth Rate

Figure 8: Portugal magazine's circulation and publicity revenues growth, source: PwC



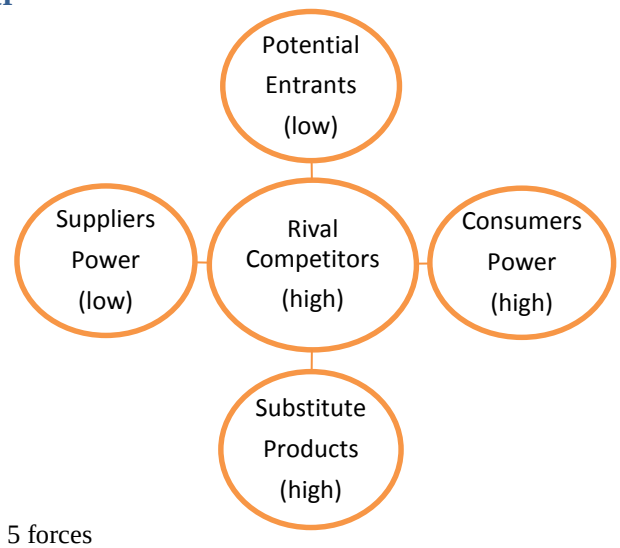
In the Portuguese magazines segment, even with the paper edition still dominating the magazines market, the new cycle will be also on the digital block. In global terms, the magazines market has been falling in the last years mainly impacted by the world economic crisis which impacted most of the domestic markets and consequently the marketing budgets.

In Portugal the magazines market is following the global trend, from 2013 to 2017 the market share will decrease at a CAGR of 1.2%. According to the PwC Portuguese Media outlook the main reasons for this decrease are; I) digital revenues will increase around 10% from 2012 to 2017, however this increase will not be enough to offset the sharp decrease on the paper magazines; II) the total spending on magazines advertising will decrease about €10M from 2012-2017; III) Many companies are now investing more on alternative ways of publicity like the social networks. However, even with PwC's negative projections for the Portuguese magazine market for the next couple of years, like the newspapers segment if Cofina wants to follow the industry pace and also to generate results in the future it will have to move the investment from paper magazines to digital ones which in the long term will dominate the circulation an publicity. For the periods after 2017, like in the newspapers segment we had to rely on the Millennium investment banking media report estimates for 2017-2020, which considers a CAGR of 1.5% for the magazine's circulation revenues and a CAGR of 2% for the publicity revenues of the company.

In the case of the marketing & alternative products which are also a source of revenue for both newspapers and magazines segments, since we have no information available on the PwC Portuguese E&M outlook we also relied on the Millennium investment

banking estimates for Cofina. In the newspapers segment the marketing & alternatives revenues are believed to grow at a CAGR of 2% from 2014 to 2020, on the other hand in the magazines segment they are believed to register a CAGR of 4% from 2014 till 2020.

6. Five Forces Porter



.Figure 9: Cofina Porter's 5 forces

7. SWOT Analysis

Strenghts	Weaknesses
• Diversified Portfolio • Solid position and experience in the Portuguese media market • Solid Management performance • Market leader publications (Record, Correio da Manhã, Jornal de negócios)	• Strong dependence on the Portuguese macroeconomic conditions and E&M cycles • Small dimension of the group • Weak presence of the company on the TV segment • Highly leveraged
Opportunities	**Threats**
• Digital media boom • Expansion through Internationalization (Emerging markets) • Expansion through Mergers & Acquisitions • Expansion by investing in the Television segment	• Strong competition • Impact of the recent economic crisis in Portugal • Constantly changing consumption patterns in the E&M industry • Traditional media decreasing growth prospects for the future

.Figure 10: Cofina SWOT analysis

9. Valuation

9.1 Methodology

As mentioned before Cofina has two main business segments, magazines and newspapers, since they are very similar we decided to consider the consolidated accounts of the company instead of valuing both segments separately by the Sum-of-the-Parts. However, we projected the revenues of both segments separately, because according with the PwC Entertainment & Media outlook and with the Millennium investment banking Media report they will register different annual growing rates in the next couple of years. To find the intrinsic value of Cofina's stock we are going to rely on the FCFF model, not only because it is one of the most effective and common valuation models used by the analysts but also because is the most suitable for companies which are looking to have a constant capital structure in the long-term (Berk & DeMarzo, 2014), which we believe is the case of Cofina in the future. The cash flows will be estimated for the next six years (till 2020) and then discounted at the WACC to 31/12/2014. In order to complement our analysis we also performed a relative valuation which consists into value Cofina comparing with its peers, which according to Professor Aswath Damodaran is a widely used method since it's much easier to understand by the audience.

9.2 Assumptions for the Valuation Process

In order to determine the value of the company we had to define several assumptions to compute the FCFF and also regarding the appropriate discount rate. These assumptions were made in order to find the necessary inputs for the valuation process, which are going to be explained further on.

9.2.1 Operating Revenues

From 2014-2017 we considered the PwC E&M report estimates, and from 2017 to 2020 we considered the Millennium investment banking estimates for the revenues. By

considering and adapting both reports annual growing rates projections for the circulation, publicity and marketing & alternatives sources of revenue it is believed that the total operating revenues of newspapers segment will register CAGR of -0,38% from 2014 to 2020 while for the magazines will register a CAGR of 0,81% in the same period.

Newspapers (thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
Circulation	46,018	43,975	42,421	40,767	39,136	37,805	38,146	38,527	38,912
growth %	-5.9%	-4.4%	-3.5%	-3.9%	-4.0%	-3.4%	0.9%	1.0%	1.0%
Publicity	30,932	28,060	29,618	29,100	28,838	28,578	29,064	29,442	29,913
growth %	-19.0%	-9.3%	5.6%	-1.8%	-0.9%	-0.9%	1.7%	1.3%	1.6%
Alternatives	10,958	12,052	12,535	12,535	12,786	13,041	13,302	13,568	13,840
growth %	14.0%	10.0%	4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Total Revenues	**87,908**	**84,087**	**84,574**	**82,401**	**80,759**	**79,425**	**80,512**	**81,537**	**82,665**
growth %		-4.34%	0.58%	-2.6%	-2.0%	-1.7%	1.4%	1.3%	1.4%

.Figure 11: Newspapers operating revenues (2012-2020); source: PwC, Millennium Investment Banking

Magazines (thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
Circulation	14,058	12,584	12,001	11,773	11,773	11,844	12,021	12,202	12,385
growth %	-11.0%	-10.5%	-4.6%	-1.9%	0.0%	0.6%	1.5%	1.5%	1.5%
Publicity	8,624	6,773	7,092	6,979	6,867	6,757	6,892	7,030	7,171
growth %	-25.6%	-21.5%	4.7%	-1.6%	-1.6%	-1.6%	2.0%	2.0%	2.0%
Alternatives	2,737	2,202	2,410	2,502	2,597	2,695	2,798	2,904	3,014
growth %	5.0%	-19.5%	9.4%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
Total Revenues	**25,419**	**21,559**	**21,503**	**21,253**	**21,236**	**21,296**	**21,711**	**22,136**	**22,570**
growth %		-15.2%	-0.26%	-1.2%	-0.1%	0.3%	1.9%	2.0%	2.0%

.Figure 12: Magazines operating revenues (2012-2020); source: PwC, Millennium Investment Banking

In both segments from 2014-2017 the company will register a negative CAGR, mainly impacted the sharp decrease of the printing runs in the next couple of years, which will have a negative impact on the circulation revenues of the company, and also by the cuts of most of the company's marketing budgets as a consequence of the recent economic crisis (PwC Media report), which will affect the publicity revenues of Cofina. On the other hand, from 2017-2020 the estimates are more optimistic mainly sustained by the belief that Cofina will turn its investment to the digital ways of media, which according to the PwC and Millennium investment banking media report is the future of the

publishing & media companies due to the consumer's necessity to have a more quickly and easy access to information.

9.2.2 Operating Income (EBIT)

The projection of the EBIT margins was based on the historical performance of the company. According to the financial reports of Cofina, in the last three years the company has been applying some rigorous and strict operational cost control policies in order to have more competitive margins, however according to Millennium investment banking those margins will keep to show some resilience in the current media and publishing sector adverse scenario. Based on this and in the historical performance of the company, we believe that Cofina will show a 12% margin from the total operating revenues in the next 6 years, assuming the value in 2020 for perpetuity.

(thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
Operating Income (EBIT)	13,366	12,355	13,316	12,377	12,179	12,027	12,207	12,380	12,566
EBIT/Revenues	11.8%	11.5%	12.6%	12%	12%	12%	12%	12%	12%

.Figure 13: EBIT projections (2015-2020)

9.2.3 Capex, Depreciations and Amortizations

Due to the lack of information of the company financial reports, we projected the capex for the next six years based on the historical average as a percentage of the total operating revenues. Since there is no indication on the financials that the company is planning to do any kind of investment for the future, with the exception of the upcoming penetration to the digital media which does not require abnormal capital expenditures, we believe that the capex will be similar to previous years, where Cofina only had to invest in tangible assets in order to renew some old equipment that reached the amortization period, which was the case in 2013.

(thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
Capex	1,625	3,213	1,344	1,964	1,933	1,909	1,937	1,965	1,994
% of Revenues	1.4%	3.0%	1.3%	2%	2%	2%	2%	2%	2%

.Figure 14: Capex projections (2015-2020)

Regarding the depreciations since we had no information available regarding future it is difficult to estimate the evolution of the tangible assets of the firm, so we also based our calculations on the historical average over the total operating revenues. According to the financials of the company most of the operational costs associated with depreciations are related with the depreciation of some printing equipment.

(thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
Depreciations & Amortizations	3,172	3,873	2,927	3,163	3,113	3,074	3,120	3,164	3,212
% of Revenues	2.8%	3.6%	2.8%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%

.Figure 15: Depreciations and Amortizations projections (2015-2020)

Based on the historical performance of the company we may note that the year of 2013 was an exception when compared to 2012 and 2014. This is related with the investment that the company took in order to renew some old equipment as we explained before, thus in 2014 the depreciations returned to regular levels.

9.2.4 Net Working Capital

The projection of net working capital was based on the historical average over the total operating revenues. In order to compute the NWC of the company in the last three years we used the formula presented in Santos Pinho & Tavares (2012), which consists in computing the permanent capital of the firm (Equity plus non-current liabilities) and then subtract the value of the non-current assets. After computing the NWC we noticed that in 2012 the value was not in line with the last two years, mainly because Cofina has been changing its debt structure as we explained in the financial framework chapter. Based on this, we only considered the last two years average over the total revenues in order to project the NWC and consequently the changes in NWC ($NWC_t - NWC_{t-1}$).

(thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
NWC	-76,001	-22,540	-22,596	-21,891	-21,540	-21,271	-21,588	-21,895	22,224
% of Revenues	-67.1%	-20.9%	-21.3%	-21.1%	-21.1%	-21.1%	-21.1%	-21.1%	21.1%
Changes in NWC	19,284	53,461	-56	705	350	269	-317	-306	-330

.Figure 16: Net working capital projections (2015-2020)

9.2.5 Risk free rate

In line with the literature revision to define the Rf we need to use a solid long term government bond yield. Based on this, we relied on the German 10 year's government bond yield taken from Bloomberg, which was 0,541% in 31/12/2014.

9.2.6 Beta

In order to compute the Beta of the company, we extracted from Bloomberg the historical closing prices on a monthly basis of Cofina and PSI 20 Index from January of 1998 until January of 2015, and then we calculated the historical returns of both. After, in order to find the levered Beta we applied the following formula **Bi = Cov(Ri,Rm) / Var(Rm)** reaching a value of 1,36.

9.2.7 Cost of Debt and Cost of Equity

In order to compute the kd we relied on the synthetic rating based methodology (Damodaran, 2002b). For that we had to compute the interest coverage ratio of Cofina which is calculated by dividing the EBIT by the total interest expenses, and then based on that result and according with Interest Coverage ratios and Ratings for low market capitalization firms table (appendix 3) we define the synthetic rating of our company. Once the rating is assessed it can be used to estimate a default spread which when added to the risk free rate gives us the pre-tax cost of debt of the firm (Damodaran, 2002a).

	2012	2013	2014	Data
EBIT €	13,366	12,355	13,316	
Interest expenses €	4,743	4,504	4,234	
Interest Coverage ratio	2.8	2.7	3.1	2.9
Default Spread				4.75%
Risk free rate				0.541%
pre-tax Cost of Debt (Kd)				5.29%

.Figure 17: calculation of the pre-tax Kd

Based on the last three years average interest coverage ratio of Cofina the synthetic rating would be a B+ which is equivalent to a default spread of 4.75% and when added to the Rf of 0.541% we obtain a value of 5.29% for the pre-tax Kd. Regarding the cost

of equity, we relied on the CAPM formula presented on the literature review **Ke = Rf + β_L (total equity risk premium[5])**. Based on Damodaran database, according to Portugal Moody's rating (Ba1) on January of 2015, the total equity risk premium is 9.50%, which is equal to a mature market equity risk premium, in this case Germany since Portugal is a western European country, plus an additional country risk premium, as you can see in following figure.

Risk free rate	0.541%
Equity or Levered Beta	1.36
Germany Total Equity risk premium	5.75%
Additional country risk premium (Portugal)	3.75%
Portugal Total Equity risk premium	9.50%
Ke - Cost of Equity	**13.5%**

.Figure 18: Cost of Equity calculation

9.2.8 Tax rate

The corporate tax rate used for the firm valuation according to the Portuguese current Government, stands at 21% plus a municipal surcharge of 1.5% over the marginal corporate tax rate.

9.2.9 Debt to Equity ratio

Since Cofina is currently conducting a deleveraging process we do not believe that the present D/E ratio reflects the future capital structure of the company. We believe that in the long-term Cofina's main goal is to have a capital structure similar to its peers. Based on this, and assuming that in perpetuity the D/E ratio of a company converges to its market D/E ratio, we relied on the Thomson Reuters Media & Publishing market D/E of 46%.

[5] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html
Damodaran database which was used in order to calculate the Portuguese equity risk premium

9.2.10 WACC

E/ D+E	68.5%
D/ D+E	31.5%
Ke	13.5%
Kd (1-corporate tax)	4.2%
WACC	**10.5%**

.Figure 19: WACC calculation

Considering the inputs explained on the previous sections and applying the weighted average cost of capital formula presented in the literature review we obtained a value of 10.5% shown in the previous figure, which was used to discount the FCFF.

9.2.11 Perpetual Growth Rate

According to the Citigroup Economic Outlook and Strategy report (2015), the Portuguese real GDP growth for the next couple of years will be around 2%, based on this and since Cofina mainly operates on the Portuguese Media & Publishing market we assumed a perpetuity growth rate in line with the Citigroup GDP projections.

9.2.12 FCFF projections, Enterprise and Equity Value of Cofina

Based on the inputs calculated previously we were able to project the FCFF until 2020. Then in order to find the enterprise value of the company we also had to find the PV of the FCFF and the PV of the terminal value as you can see in the following figure.

(thousand €)	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
EBIT(1-tax)	9,974	9,220	10,207	9,739	9,585	9,465	9,607	9,743	9,890
(+) Depreciations	3,172	3,873	2,927	3,163	3,113	3,074	3,120	3,164	3,212
(-) Capex	1,625	3,213	1,344	1,964	1,933	1,909	1,937	1,965	1,994
(-) Changes in NWC	19,284	53,461	-56	705	350	269	-317	-306	-330
FCFF	**-7,763**	**-43,581**	**11,846**	**10,233**	**10,415**	**10,362**	**11,106**	**11,248**	**11,437**
Terminal value									**136,520**
Discount factor				0.9046	0.8183	0.7403	0.6696	0.6057	0.5479
Discounted FCFF				**9,257**	**8,523**	**7,670**	**7,437**	**6,814**	**6,267**
Discounted TV									**74,810**

.Figure 20: FCFF projections, Discounted CF's and Terminal value

10. Valuation Results

After adding the PV of the FCFF (Explicit Value) and the PV of the terminal value calculated in the previous section we reach the enterprise value of Cofina. Then, in order to find the equity value of the company some adjustments were made, we had to add the minorities and the assets held for sale and to deduct the net debt of the company in December 31th of 2014 (Cofina financial report, 2014).

Explicit Value	45,968
Discounted Terminal Value	74,810
Enterprise Value	**120,778**
(+) Minorities	90,981
(+) Assets hold for sale	29,498
(-) Net debt	64,840
Equity Value	**56,059**
number of shares outstanding	102,570
price per share	**€ 0.55**

.Figure 21: Valuation results

The intrinsic value of each share of Cofina obtained by the valuation process was €0.55 which represents an appreciation potential of 17% when compared to the company quote on 31/12/2014 (€0.47). However, it is important to refer that this is not an exact value and it is only valid for the purposes of this master thesis project, since it is very dependent on the assumptions and methodology used. Based on this we decided to complement our project with a sensitivity analysis, which will allow us to better understand the possible values that the stock can vary in different scenarios.

11. Sensitivity Analysis

In order to analyze the behaviour of the stock price in different scenarios, with different assumptions and also to prove that the valuation model can fluctuate, we decided to diverge the WACC and the perpetual growth rate which are two variables that have a lot of impact on the valuation results as you can see in the following figure.

g \ WACC	12.5%	11.5%	10.5%	9.5%	8.5%
3.5%	0.42 €	0.56 €	0.72 €	0.95 €	1.26 €
3.0%	0.39 €	0.51 €	0.66 €	0.86 €	1.13 €
2.5%	0.36 €	0.47 €	0.60 €	0.78 €	1.01 €
2.0%	0.33 €	0.43 €	0.55 €	0.71 €	0.92 €
1.5%	0.30 €	0.39 €	0.51 €	0.65 €	0.84 €
1.0%	0.28 €	0.36 €	0.47 €	0.60 €	0.77 €
0.5%	0.25 €	0.33 €	0.43 €	0.55 €	0.70 €

.Figure 22: Sensitivity analysis

Based on the results obtained, we reinforce the idea that the valuation process and Cofina stocks are very sensitive to changes in the WACC and in the growth rate in perpetuity. For example, in the best case scenario with a WACC of 8.5% and g of 3.5% the appreciation potential is about 130%, on the other hand in the worst case scenario, with a WACC of 12.5% and g of 0.5%, the depreciation potential is about 55%, proving that results can highly vary based on the assumptions made.

12. Relative Valuation

As mentioned in the literature review, the RV method is widely used by the analysts not only because is based on less assumptions than the other methods but also because generally is more easier to understand by the audience (Damodaran, 2002a). Based on this, to complement the DCF's valuation and to have a more accurate result we decided to perform a Relative Valuation by relying on two of the most commonly used multiples, the Enterprise value to EBITDA and the Price-to-Earnings ratio.

	EV/EBITDA	P/E
Impresa SGPS SA	10	12.03
Grupo Media Capital	5.93	7.70
Telegraaf Media Groep NV	5.72	1.92
Roularta Media Group NV	14.24	11.98
Alma Media Corp.	7.96	14.47
Arnoldo Mondadori Editore	7.86	43.75
Sanoma OYJ	3.45	14.38
peers average	7.88	15.18
price target	**€ 0.62**	**€ 0.91**

.Figure 23: RV results, source: Bloomberg

Based on results obtained above, we reach the same conclusions of the FCFF methodology, meaning that Cofina stocks are undervalued and still present growth potential for the coming future. In order to perform this analysis we relied on Bloomberg database to collect information of the peers and the respective multiples. In appendix 4 you can find a brief description of each one of them and also the calculations that support this analysis.

13. Conclusion

In the last years of activity, Cofina has been struggling against the world economic crisis which left the Portuguese media and publishing sector in a very adverse scenario, with most of the companies cutting on their publicity & marketing budgets and with the demand for paper editions decreasing sharply. Even thought, due to a strong management performance, Cofina has shown resilience to this scenario and maintained solid operating and financial results.

Nevertheless, the media and publishing sector pattern is changing. If Cofina desires follow the industry pace it will have to explore new market opportunities and to move the investment into non-traditional ways of media by gradually leaving the paper format to the digital one, responding to the consumer's necessity to have a more quickly and easy access to information. Furthermore, Cofina should also continue with the deleveraging process along with the operational costs control policies, in order to consolidate its margins and to attract new investors.

In summary, by taking into account the sector future projections as well as our valuation results, we may conclude that Cofina's share price at 31/12/2014 was undervalued. Therefore, through this project we provide a buy recommendation to any investors

interested in Cofina's stocks since we believe that in the coming future its price will converge to our valuation estimates.

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Appendixes

Appendix 1: Cofina's Financial Framework

			2012	2013	2014
Historical Analisys (thousand €)		**Total Operational Revenues**	**113,327**	**107,659**	**106,078**
		.Circulation	60,076	56,559	54,422
		.Publicity	39,556	34,833	36,710
		.Marketing & Alternatives	13,695	16,267	14,946
		EBITDA	**16,538**	**16,228**	**16,243**
		margin %	14.6%	15.1%	15.3%
		Operational income (EBIT)	**13,366**	**12,355**	**13,316**
		Financial income	-3,464	-3,263	-3,424
		Net Income	**3,987**	**4,681**	**6,174**
Short-term analysis	Liquidity	**Cash ratio**	0.15	0.20	0.23
		Current ratio	0.29	0.57	0.59
		Quick ratio	0.21	0.38	0.40
		Net Working Capital (thousand €)	-76,001	-22,540	-22,596
	Activity	**Asset turnover**	0.72	0.78	0.79
		Days sales outstanding	26.3	27.9	31.8
		Days Inventory outstanding	63.4	51.1	51.0
		Days payables outstanding	210.3	198.9	221.5
		Cash conversion cycle	-120.6	-119.9	-138.7
Long-term analysis	Structure	**Solvency**	11.5%	15.1%	17.8%
		Leverage ratio (Debt/Assets)	90%	87%	85%
		Financial autonomy	10%	13%	15%
		Debt to Equity	1.4	3.7	3
		leverage structure	84.1%	43.7%	47.8%
	Profitability	**ROA**	2.98%	3.5%	4.6%
		ROE	30.34%	27.80%	30.95%
		Net income margin	3.5%	4.3%	5.8%
		Operational profit margin	11.8%	11.5%	12.6%
		Gross margin	86.08%	85.65%	84.28%

.Table II: Cofina's financial framework; source: Bloomberg and Cofina.

Appendix 2: Macroeconomic Key performance indicators

Real GDP growth %	2014	2015F	2016F	2017F	2018F	2019F
Global	2,7	2,9	3,4	3,4	3,4	3,4
Euro area	0,9	1,5	2,0	1,8	1,8	1,8
Portugal	0,9	1,9	2,1	2,0	2,0	1,9
CPI inflation %	**2014**	**2015F**	**2016F**	**2017F**	**2018F**	**2019F**
Global	2,6	2,0	2,7	2,9	2,9	3,0
Euro area	0,4	0,2	1,5	1,4	1,4	1,5
Portugal	-0,2	0,2	1,0	0,6	0,7	0,9
Gov Debt (% of GDP)	**2014**	**2015F**	**2016F**	**2017F**	**2018F**	**2019F**
Global	85	86	85	84	83	82
Euro area	95	95	94	92	91	89
Portugal	129	127	124	122	120	118
Current Balance (% of GDP)	**2014**	**2015F**	**2016F**	**2017F**	**2018F**	**2019F**
Global	0,5	0,4	0,4	0,3	0,2	0,2
Euro area	2,3	2,3	2,1	1,8	1,5	1,4
Portugal	0,7	1,0	1,2	1,4	1,5	1,4

.Table III: Macroeconomic outlook, source: Citigroup Global Economic Outlook and Strategy (2015)

Appendix 3: Synthetic Rating based methodology

Interest Coverage Ratio	Rating	Spread
> 12,5	AAA	0,75%
9,5 - 12,5	AA	1,00%
7,5 - 9,5	A+	1,50%
6 - 7,5	A	1,80%
4,5 - 6	A-	2,00%
3,5 - 4,5	BBB	2,25%
3 - 3,5	BB	3,50%
2,5 - 3	B+	4,75%
2 - 2,5	B	6,50%
1,5 - 2	B-	8,00%
1,25 - 1,5	CCC	10,00%
0,8 - 1,25	CC	11,50%
0,5 - 0,8	C	12,70%
< 0,5	D	14,00%

.Table IV: Interest Coverage ratios and ratings for low cap firms, source: Damodaran,2002

According with (Damodaran,2002), this table was developed 1999 and 2000, by listing all rated firms, with a market capitalization lower than $2 billion, and their interest coverage ratios, and then sorting firms based upon their bond ratings. The ranges were adjusted to eliminate outliers and to prevent overlapping ranges.

Appendix 4: Relative Valuation peers and calculations

Telegraaf Media Groep NV (TMG NA) - Amsterdam, Netherlands

Operates in the media business. It publishes national, regional and local newspapers, and puzzle, entertainment and specific interest magazines. It also operates a social media website; develops digital games; operates radio stations; provides digital media for wireless devices; and develops combinations of different media.

Grupo Media Capital SGPS (MCP PL) - Barcarena, Portugal

Is a Portuguese Media company. The company is active in television broadcasting throughout Portugal. The group activities also include audiovisual production and distribution, radio broadcasting and magazines and newspapers publishing.

Impresa - Sociedade Gestora de Participações, S.A (IPR PL) - Lisboa,Portugal

Is a media and entertainment company. The company has interests in cable television programming, magazine publishing, direct marketing, television broadcasting, newspapers publishing, and cable television systems. Impresa operates primarly in Portugal.

Roularta Media Group NV (ROU BB) - Roeselare, Belgium

The company is a Publisher. It publishes provincial newspapers, local free newspapers, and lifestyle, news, financial, home, arts and sports magazines. The company also operates regional television stations. Roularta operates in Belgium, the Netherlands, France and Portugal.

Alma Media Corporation (ALN1V FH) - Helsinki, Finland

Publishes newspapers and operates internet commerce websites. The company publishes regional, local and free circulation newspapers, and operates websites selling used cars, used equipment and real estate, and offering job advertisements. ALMA also

publishes business magazines, ranks companies within sectors, and publishes customer and corporate magazines.

Arnoldo Mondadori Editore (MN IM) - Segrate, Italy

Is an Italian printer and publisher. The company's publications include books, magazines, newspapers, advertising, business information, graphics, direct marketing, and on-line information services. The company mainly operates in Italy.

Sanoma OYJ (SAA1V FH) - Helsinki, Finland

Is a media company. Sanoma publishes and distributes books, maps, magazines, calendars and newspapers. The company publishes magazines in several companies in Europe, offers educational products, and operates Internet services, bookstores, television stations, cinemas and convenience outlets.

Calculations:

EV to EBITDA

EV/EBITDA $_{peers}$ = 7,88

EBITDA $_{Cofina\ 2014}$ = 16.243 thousand Euros

Enterprise Value = 7,88 x 16.243 = 127.994,84 thousand Euros

Equity Value = 127.994,84 + Minorities$_{2014}$ + Assets held for sale$_{2014}$ - Net debt$_{2014}$

Equity Value = 127.994,84 + 90,981 + 29,498 - 64.800 = 63.315,32

Price target = 63.315,32 / 102.570 thousand shares outstanding = €0,62

Price-to-Earnings ratio

P/E $_{peers}$ = 15,18

EPS $_{Cofina\ 2014}$ = €0,06

Price target = 15,18 x €0,06 = €0,91