CATÓLICA LISBON
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Equity Valuation

The Coca-Cola Company

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February 2016

Dissertation submitted in partial fulfilment of requirements for the degree of MSc in Business Administration, Major in Corporate Finance and Control, at the Universidade Católica Portuguesa, February 2016

Abstract

The present dissertation aims to demonstrate the process of valuing The Coca-Cola Company (KO).

Valuation is not an exact science, requiring numerous assumptions and different models to be trusted. Several theories and articles from prestigious authors were followed aiming to deliver the best possible result.

There is not a consensus among authors about which method yields best results, however Discounted Cash Flow is considered the finest by most of them. Therefore, KO will be valued according to the DCF model, complemented with a relative valuation, a fundamental valuation tool when used additionally.

Finally a comparison is going to be made with the 21 July 2015 J.P. Morgan report, with a recommended target price of $ 46.

Abstrato

A presente dissertação pretende demonstrar o processo de avaliação da The Coca-Cola Company (KO).

Avaliação não é uma ciência exata, requerendo inúmeras assunções e diferentes modelos para ser fiável. Diversas teorias e artigos de prestigiados autores foram seguidos com o objetivo de atingir o melhor resultado possível.

Não existe consenso entre autores sobre qual o modelo que melhores resultados obtém, no entanto o Discounted Cash Flow é considerado o melhor por maior parte deles. Portanto, a KO será avaliada de acordo com o modelo DCF, complementado com uma avaliação relativa, uma ferramenta de avaliação fundamental quando utilizada complementarmente.

Finalmente será feita uma comparação será feita com o relatório da J.P. Morgan datado a 21 de Julho de 2015, com um preço alvo recomendado de $ 46.

Acknowledgements

This dissertation is not only the product of a hard working process, but also my last step at Católica-Lisbon School of Business and Economics, therefore, I want to thank my parents to make all of this possible for me.

Regarding the project itself, I would like to express all my gratitude to Professor José Carlos Tudela Martins, for being always available, prompt and enlightening addressing my numerous questions.

I would also like to thank my colleagues for all the discussions, support and recommendations.

Finally, to those who have always been and will be on my side, my girlfriend, my friends and my family.

Executive Summary

The Coca-Cola Company – A leadership story

Since 1886, the first Coca-Cola soda fountain sales, the company has been a driver of industry innovation and an important investor in local economies. Nowadays, The Coca-Cola Company is the beverage industry leader with four of the world's top-five sparkling brands among the more than 500 brands of the KO's portfolio.

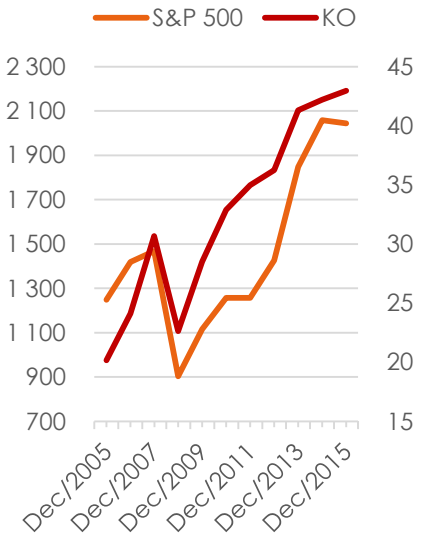
Soft Drinks Industry Risks

Health concerns and healthy diets are among developed countries top priorities. Governments promote the consumption of healthy products through penalties on the others like the sugar tax, health institutions are more active than ever informing people about the soft drinks consumption danger and the social media/networks also have those concerns as hot topics.

Coming back from disappointing results

The Coca-Cola Company has been underperforming over the last couple of years, due to not only macroeconomic and industry factors, but also due to low productivity and poor investment decisions. To turn the events around, the company has released in 2014 a strategic plan, specially designed to reduce costs, increase the local presence and to increase the productivity, having also a high marketing spending to support its operational activities. The company expects to achieve cost savings of about $ 3 Billion per year by 2019.

Company
The Coca-Cola Company
Industry
Non-Alcoholic Drinks and Soft Drinks
Main Competitors
PepsiCo Inc
Recommendation
BUY
Target Price
$ 49.46
Market Price @ 22/01/2016
$ 42.06
J.P. Morgan Target Price
$ 46
Shares Outstanding
4 348 985 156
Market Capitalization
182 918 Million



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1. Introduction

An Equity Valuation is more than a simple recommendation at the end of the process, is a story telling based on a deep understanding of the company.

All the companies were founded some point in the past, since then until the present the owners may have changed, the designation may have changed, the business model may have changed, and even the products/services might be entirely different. At a present level, is important to understand how the company operates, what markets does it serve, who are the customers and what is the company's goal.

Afterwards, is essential to know the company's surrounding, translating into the industry, the competitors and the risks. A macro environment analysis is also key in order to have a broad understanding of the world economy.

These are crucial tools to provide the needed inputs in any valuation model, without them, the assumptions are empty and the result will be random.

Knowing how the company developed until the present, how is it current performance, how is the environment surrounding it and applying it on relevant valuation models will yield the ultimate analysis, how is the market perceiving the company's value facing its fair price?

The Coca-Cola Company is present all over the world with more than 500 brands, almost 130 years of history and being one of the most iconic companies that ever existed on Earth, was certainly a challenge reaching the final result.

At the end a comparison with J.P. Morgan was performed, in order to understand the main differences between both analyses.

2. Literature Review

In order to perform an equity valuation on any company, is fundamental to define which valuation method or methods best fit the case.
With this section all of the most significant models are going to be defined and explained according to the literature developed. These models will be individually analysed to achieve, in the end, the set of methods applied in this dissertation.
The strengths and weaknesses of each one are going to be discussed and different valuation methods are going to be selected, reaching stronger conclusions.

2.1. Valuation Introduction

Fair value and market value are not always the same, Bogdan Cosmin Gomoi et al. (2014) argues that the market value comes out implicitly from the voluntarily negotiated transactions in a well determined context, while the fair value involves a choice, having a high degree of subjectivism.
A consistent fair value is not only important to finance experts and investors, but also to managers, Luehrman (1997) states that it has become a "pre-requisite for meaningful participation in a company's resource allocation decisions".
Knowing the importance of valuation is crucial, but unfortunately it is not an exact science, there are several different valuation models and all of them rely on assumptions made during the process.

2.2. Discounted Cash Flow

According to Luerhman (1997) valuation is always a function of cash, timing and risk, in Discounted Cash Flow Models these three components are measured by Cash Flows, Growth and Discount Rate. Depending on the model used, these components will be defined differently, reaching different results based on the perspective adopted.
Damdodaran (2006) states that in order to achieve the value of an asset, it is required to discount their expected cash flows to the present value, at a rate that reflects the riskiness of those cash flows.

$$DCF = \sum \frac{CF_t}{(1+r)^t}$$

In the formula above, CF_t are the expected future cash flows of the firm at a given time period, r is the discount rate and t is the number of time periods.

DCF is based on forward looking expectations, historical data only influence the assumptions made.

Unfortunately DCF is not flawless. The accuracy of the valuation depends on the quality of the assumptions, discount rate and terminal value. Terminal Value, which will be discussed on chapter 1.7.2., can represent a large percentage of the total DCF valuation.

DCF is the method that has more followers among investment experts, Goedhart et al. (2005) conclude that "of the available valuation tools, a discounted-cash-flow analysis delivers the best results", Damodaran (2002) states that "this approach gets the most play in academia and comes with the best theoretical credentials" and Luehrman (1997) argues that "discounted-cash-flow-analysis (DCF) emerged as best practise for valuating corporate assets".

The topics within this method that are going to be explained are the Free Cash Flow to Equity, Dividend Discount Model, Free Cash Flow to Firm and Adjusted Present Value.

2.2.1. Equity Valuation

It is important to distinguish between equity and firm values, as Young et al. (1999) argue, equity valuation approaches estimate the value of a firm to equity holders, while firm value approaches value the whole enterprise, the equity and the debt.

In broad terms equity value is the value that only regards shareholders, while enterprise value is the value of the firm that accrues to both shareholders and debt holders.

Multiplying the market value per share by the total number of shares outstanding will return the equity value of a company.

According to Damodaran (2006), in equity valuation, cash flows are only recognized after debt payments and after making reinvestments needed for future growth.

$$FCFE = Net\ Income - Net\ Capital\ Expenditure - \Delta\ NWC + New\ Debt - Debt\ Repayment$$

The company's share of expected future cash flows are, as Luehrman (1997) argues, "discounted at an opportunity cost that compensates the company for the risk it is bearing".
Farrell (1985) rearranged the Dividend Capitalization Model to estimate the discount rate.

$$k = \frac{DPS_{t+1}}{P} + g$$

Where D_{t+1} represents the next year's expected dividend per share, P the market value of the stock and g the dividend growth rate as a perpetuity.
Alternatively k can be computed through the Capital Asset Pricing Model, given by a formula that involves risk assumptions. This model will be discussed later on this dissertation.

$$EV = \sum \frac{FCFE_t}{(1 + K_e)^t}$$

It is possible to achieve the model's fair value through the equation above, by summing the Free Cash Flows to Equity discounted back to the present value at the cost of equity.
Luehrman (1997) states that an Equity Cash Flow Valuation won't give a "correct" value for a leveraged firm, however, if the assumptions made follows the same direction, towards a low estimative, it is possible to conclude that the valuation is low, not high and why.
Damodaran (2006) also explains the constant growth FCFE model, it is very similar to the Gordon Growth Model discussed in the next chapter, whereas the only difference is the use of the next year expected FCFE instead of DPS.

$$EV = \frac{FCFE_{t+1}}{(k - g)}$$

This model can be used if two conditions are met, first the growth rate used in the model must be equal or less than the growth rate in the economy. Secondly, the firm's characteristics must be the one's shared with other stable firms and should be consistent with the assumptions on the growth rate.

2.2.2. Dividend Discount Model

A stock owner can expect two types of cash flows, the expected price difference at the end of the holding period and the dividends distributed by the company during that same period. According to Foerster & Sapp (2005), the Dividend Discount Model focus on the latest cash flow, it returns the price of the stock by summing all of the expected future payments discounted to the present value at a rate required by investors at time t.

$$Value\ of\ the\ Stock = \sum_{t=1}^{t} \frac{E(DPS_t)}{(1+k_e)^t}$$

Based on this definition, Gordon and Shapiro (1956) and Gordon (1962) achieved the Gordon Growth Model. The value of the stock is computed as the following formula.

$$Value\ of\ the\ Stock = \frac{DPS_{t+1}}{(k-g)}$$

D_{t+1} represents the next year's expected dividend per share, k the required rate of return for equity investors and g the dividend constant growth rate as a perpetuity. The required rate of return can be computed as stated in the chapter above.

In order to estimate the next year's dividends Farrell (1985) states that it is achieved by multiplying the payout rate and the next year's earnings. On the other hand, if the retention rate is multiplied by the return on equity the discount rate is computed.

Damodaran (2006) states that, "the dividend discount model's primary attraction is its simplicity and its intuitive logic. Dividends represent the only cash flow from the firm that is tangible to investors." Furthermore, "it yields realistic estimates of value per share for firms that do pay out their free cash flow to equity as dividends, at least on average over time."

However using this model can result on conservative estimations, if firms decide to hold back cash instead of distributing it to stockholders the free cash flow to equity will exceed dividends, resulting in large cash balances build-up.

It can also produce too optimistic estimations if firms, so as to maintain the levels of dividends, pay for more in dividends than they have in cash flows by issuing new debt or equity.

2.2.3. Firm Valuation

Firm value considers the business as a whole, and it is this value that a potential buyer might pay. Once the equity value is known, firm value is computed by subtracting cash or cash equivalents that the business currently holds while adding all of debts in the company (debt, minority interest and preferred stock).

As Damodaran (2006) states, in firm valuation, "the cash flows considered are from assets, prior to any debt payments but after any reinvestment the firm has made to create growth assets."

$$FCFF = Operating\ CF - Expenses - Taxes - \Delta\, NWC - \Delta\, Investments$$

The discount rate, in firm valuation, reflects the cost of raising both debt and equity financing, in proportion of their respective use. The Weighted Average Cost of Capital captures the costs and benefits of the capital structure, as well as the tax shield effect. WACC will be discussed ahead on the dissertation.

The firm value is therefore computed through the following formula.

$$FV = \sum \frac{FCFF_t}{(1 + WACC)^t}$$

The value of the firm can also be computed using the FCFF model, using the year's ahead FCFF divided by the WACC minus the growth rate of the FCFF, a stable growth rate that can sustain in perpetuity.

$$FV = \frac{FCFF_{t+1}}{(WACC - g)}$$

According to Damodaran (2006) this model can be applied if the conditions mentioned in the Constant Growth FCFE model are met.

This will be the method used in this dissertation, combined with a Relative Valuation, discussed further on the Literature Review.

2.2.4. Adjusted Present Value

In the conventional DCF approach, the effects of debt are captured in the discount rate, in the APV approach, the side effects of debt are considered separately from the equity value. Thus, the first step to perform an APV valuation is to value the firm without any debt, 100% equity financed. The second step is to add the value of the expected tax benefits.

$$Value\ of\ Tax\ Benefits = \sum \frac{Tax\ Rate_t \times Interest\ Rate_t \times Debt_t}{(1+r)^t}$$

According to Damodaran (2006), it is important to know what tax rate to use and if that tax rate can change over time, what is the level of debt and if that level can change over time, and finally what discount rate to use to discount the tax benefits to the present value.

The third and final step is to subtract the present value of the expected bankruptcy costs.

$$PV\ Expected\ Bankruptcy\ Costs = Probability\ Bankruptcy \times PV\ Bankruptcy\ Costs$$

Damodaran (2006) considered this step as the most significant problem of APV. He argues that these costs can represent a large percentage of the firm value and neither the probability nor the value of the bankruptcy costs can be estimated directly.

According to the author there are two ways of estimating the probability of default, by looking up the rating of the company's traded bonds and different interest coverage ratios, or by other sources that relates the probability of default with some firm characteristics, as the industry or market segment.

Despite this estimation problem, Luehrman (1997) described the WACC approach as being obsolete, and the only reason why textbooks and business schools are still teaching WACC is because it is the standard, not because it is the one that performs best. Moreover, Luehrman (1997) explained why APV is a better tool than WACC.

First, it requires fewer assumptions working every time WACC works and sometimes when WACC doesn't work, secondly, because it is less susceptible to serious errors, and finally, APV does not only provide the asset value, but also where does that value comes from.

2.3. Returns Based Approach

2.3.1. Economic Value Added

Economic Value Added (EVA) is one of the most used methods of the Returns Based Approach. This approach consists of taking into account the value created in excess of the cost of capital, being the firm value a function of expected excess returns.
Damodaran (2006) defined EVA as "a measure of the surplus value created by an investment or a portfolio of investments."

$$EVA = After\ Tax\ Operating\ Income - Cost\ of\ Capital \times Capital\ Invested$$

According to the author it is important to know how to estimate both Capital Invested and Cost of Capital. The capital invested in Assets in Place can be estimated by assessing the capital invested from the beginning and cumulating this market value. The cost of capital must measure the market value of that cost. Computing EVA using book values is, according to Damodaran, incorrect.
Knowing how to compute EVA is the first step to value a firm through this method. There are three components that need to be summed to achieve the value of the firm.

$$FV = Capital\ Invested_{AiP} + \sum \frac{EVA_{tAiP}}{(1+k_c)^t} + \sum \frac{EVA_{tFP}}{(1+k_c)^t}$$

The components are, respectively, the capital invested in assets in place, the present value of the economic value added by these assets and the present value of the economic value added by the future projects.

2.4.Relative Valuation

Instead of focusing on the asset intrinsic value, the Relative Valuation, or Multiples Valuation Method uses similar assets in order to determine the asset value.
Fernandez (2007) argues that this method is useful as a second stage of the valuation, not as a stand-alone method. Moreover Goedhart et al. (2005) considers this method is useful in

making forecasts for the valuation and the DCF valuation, more accurate, suggesting that both methods should be combined.

Therefore Relative Valuation is a crucial component in any valuation, however it does not yield by itself the most accurate value of the asset.

As mentioned before, and knowing the importance of this method, this dissertation will also be performing a Relative Valuation in addition to the DCF Valuation.

2.4.1. Peer Group

Finding a group of firms whose characteristics are similar enough to base a valuation on them can be challenging, and different authors suggest different ways to aggregate comparable firms.

Damodaran (2006) defined comparable firms as having similar cash flows, similar growth potential and similar risk to the company that is being valued.

Furthermore, Goedhart et al. (2005) established 4 basic principles that should be applied in order to use this method properly, one of them focus on the definition of the peer group.

A first list of peers might be defined by the industry, these competitors might be found in the company's annual report, on the Global Industry Classification Standard (GICS) developed by Morgan Stanley Capital International and Standard & Poor's or on the Standard Industrial Classification codes published by the US government.

The usage of similar prospects for ROIC and growth to define the peers is, according to the author, essential and this dissertation will follow this methodology.

Each multiple of each company in this list must be analysed and differences should be explained, and understand whether or not these multiples translate into different ROICs or growth rates.

After this analysis is made the peer group is a more adequate one, and could be as small as one company.

2.4.2. Multiples

While the first principle of Goedhart et al. (2005) concerns the peer group, the other three concerns the usage of multiples. The authors argue that, whenever reliable forecasts are available, should be used forward-looking multiples. This principle is confirmed in a study

conducted by Liu et al. (2002), where it is declared that forward earnings perform the best, and as long as the forecast horizon is, the better is the model performance.

Other principle relies on the usage of enterprise-value multiples, the author claims that although Price-to-Earnings (P/E) multiples are widely used, they have two crucial flaws.

First, if the company has an unlevered P/E higher than one over the cost of debt, means that the P/E ratio rises with leverage. By simply swapping debt for equity, the company can artificially increase the ratio.

Secondly, being based in earnings, the ratio can mislead due to one-time events whose cause is non-operational. As alternative it is suggested the usage of the enterprise-value-to-EBITDA multiple, being less susceptible to manipulation or misleading results.

The final principle is to adjust the enterprise-value-to-EBITDA multiple for non-operating items. The most common adjustments are the excess cash and other non-operating assets, the enterprise value shouldn't include excess cash and non-operating assets should be valued separately.

Operating leases, since lease-based debt is ignored it can yield an artificial low enterprise value, and also an artificial low EBITDA, because the rental expenses include the interest cost. To correctly calculate an enterprise value it should be added the value of the leased asset to both debt and equity, while the implied interest expense should be added to the EBITDA.

Employee stock options are also adjusted. To calculate the enterprise value it is added the present value of all employees' grants currently outstanding, and new employee option grants, as it is described in the company's report, subtracted from EBITDA.

Finally the adjustment of pensions, to calculate the enterprise value, have to be added the present value of pension liabilities, while in the EBITDA the pension interest expense is added, the recognized returns on plan assets deducted, and it is adjusted for any accounting changes resulting from changed assumptions, as it is described in the footnotes of the company's annual report.

Lie & Lie (2002) argues that there is no consensus to which multiple performs the best, however their conclusions align with those from Goedhart et al. (2005). Asset value multiples often yields more precise and less biased estimates of value than do sales and earnings multiples, using forecasted earnings instead of historical earnings improve the estimate of the P/E multiple and the EBITDA multiple generally yields better estimations than the EBIT multiple.

2.5. Option Pricing Model

If the company being subject to valuation has high levels of uncertainty regarding its operations, the Option Pricing Model can be a very useful tool. However, Copeland and Keenan (1988) considers that most of the attempts to use real options have been far too simple when compared to the complexity of the decisions managers face, nevertheless, if applied thoroughly this method takes into consideration all the possible scenarios that the company might face.

The option model that is used the most is the Black-Scholes Model but the Binomial Model is also widely used.

Without neglecting the power of these models if applied correctly, the uncertainty surrounding the real asset investment makes it difficult to have accurate inputs, making calculation very difficult. Companies that work with non-perishable goods are those that present best results using the method, due to the various options that the company have deciding what business strategy to pursue. Knowing that it is clearly not the case of The Coca-Cola Company (KO), this method won't be pursued.

2.6.The Cost of Capital

Independently from the DCF method chosen, all of them require a discount rate to bring the forecasts of the cash flows back to their present value.

This cost represents the cost of money to finance the business, it can be represented as the cost of equity, if the business is funded only through equity, cost of debt, if the business is funded only through debt, or via the weighted average cost of capital, when the company is funded by a mix of both equity and debt.

2.6.1. Weighted Average Cost of Capital (WACC)

After forecasting the free cash flows to the firm, these must be discounted to the present value through the WACC.

$$WACC = \frac{D}{V} \times k_d \times (1 - t) + \frac{E}{V} \times k_e$$

This rate measures the risk of the company according to its capital structure, being calculated a weighted average between the cost of debt and the cost of equity. The formula also comprises the tax benefit associated with the level of debt in the capital structure and the cost of debt.

The simplicity of the WACC comes, according to Luehrman (1997), with a cost. It only works for the simplest and most static capital structure. In any other case assumptions and adjustments must be made not only for the tax shields but also for dynamic capital structures, subsidies, hedges, issue costs and exotic debt securities. Therefore it is possible to conclude that the WACC works the best with companies that conserve a fairly stable debt-to-value ratio.

2.6.2. Cost of Debt

This cost of debt is represented by a rate that reflects how much the company is paying for its current debt. This cost can be measured before or after tax returns, and since the interest is tax deductible, therefore does not represent a cost to the company, it is more common the use of the after-tax cost of debt, being its effective rate.

If the company represents no risk at all to the investors, the cost of debt would be equal to the risk free rate. However investors require a higher return considering that companies always carry some risk associated. The Big Three credit rating agencies (Standard and Poor's, Moody's, and Fitch Group) attribute a rating associated to the firms bonds. These are the agencies that generate more consensuses in the United States and Europe.

$$Cost\ of\ Debt = Risk\ Free\ Rate + Company\ Default\ Spread$$

According to Damodaran (2002) the cost of debt has two inputs, the Risk Free Rate and the Company Default Spread.

2.6.3. Capital Asset Pricing Model – CAPM

William Sharpe (1964) and John Lintner (1965) were responsible for the introduction of the asset pricing theory, creating the Capital Asset Pricing Model (CAPM). This model allowed William Sharpe to win the 1990's Economic Science Nobel prize alongside with Harry M. Markowitz and Merton H. Miller. Nowadays the CAPM is still widely used, not only to

estimate the cost of capital for firms, but also to evaluate portfolios' performance and much more.

According to Fama & French (2004), this model "offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk".

The idea behind the CAPM is that investors must be remunerated in two ways, they must be remunerated for the time value of their money and the risk incurred.

$$E(R_A) = r_f + \beta_A[E(R_m) - r_f]$$

The expected return on the investment is equal to the time value of money plus the risk incurred. The time value of money is the risk free rate (r_f), usually given by a 10-year Treasury bond. The risk incurred is a function of two variables.

2.6.3.1. Beta

The first variable is Beta, this variable measures the volatility/systematic risk of the stock, assets with betas greater than 1 are perceived as risky, and assets with betas lower than 1 are perceived as less risky, the risk free has a 0 beta. A beta of, for example, 0.5 means that the stock is, historically 50% less volatile than the market, thus, in theory, if the stock market declines or move up by 4%, the stock will, respectively, decline or move up only by 2%.

It is possible to compute the beta in two ways, the raw beta and the adjusted beta.

$$R_A = a + \beta R_m, \qquad where\ \beta = \frac{Cov(R_A, R_m)}{\sigma_m^2}$$

According to Damodaran (2002), it is possible to estimate the raw beta as a regression of the stock returns (R_A) against the market returns (R_m). In the formula above, *a* represents the intercept from the regression and β the slope, corresponding to the raw beta of the stock.

While the raw beta is an historical measure, the adjusted beta is an estimate of the asset's future beta.

$$Adjusted\ \beta = \frac{2}{3} \times Raw\ \beta + \frac{1}{3}$$

This is the most commonly used formula to compute the adjusted beta, developed by Bloomberg.

2.6.3.2. Risk Premium

The second variable is the risk premium. According to the risk-return trade-off, an investor expects that returns move alongside with risk, meaning that for low risk assets they expect low potential returns, and for high risk assets they expect high potential returns. Therefore an investor expects a risk premium when investing in an equity over the alternative that is the risk free. U.S. long term treasury bills are commonly perceived as risk free because the risk of the government defaulting on its obligations is very unlikely. Nevertheless, a company can present losses or can even go bankrupt.

Damodaran (2011) argues that in order to estimate equity risk premiums there are three possible methods.

The first method is to survey investors and managers to understand their expectations about future equity returns. Being the simplest method to use, it is also the one that has lower prediction accuracy. This method is responsive to recent stock price movements, the responses can be sensible to how it is asked, depending on the sub-set surveyed different conclusions are registered and if the surveys have any prediction power, should be on the opposite direction, since Fisher & Statman (2000) concluded that there is a negative relationship between the investor sentiment and stock returns.

The second method is the historical approach. This method estimates the actual stock returns over a long period of time, and subtracts to it the actual risk free return on annual basis. The author however makes important notes on this method, the estimation period should be long enough to diminish the standard error of the estimation (Appendix A.2). The risk free rate and the averaging method also matters, being the most commons forms the U.S. 10-year Treasury bond and the arithmetic average returns. The final method bases on attempting to estimate a forward-looking premium based on prices on traded assets or the market rates today.

2.7. Important Considerations

2.7.1. Present Value of Tax Shields

This definition is often associated with the interest expense, since they are tax deductible, can be considered a future tax saving. Dividends and capital gains are not tax deductibles, so when the company is choosing its capital structure this debt financing advantage over equity financing will undoubtedly have influence.

Fernandez (2004) argues that there is no consensus about the correct way to calculate the value of tax shields, most of them compute it as a function of the present value of the tax savings due to interest cost, regarding the interest rate opinions diverge.

Myers (1974), Damodaran (2006) and Luehrman (1997) argues that the discount rate used to discount the future tax savings should be the cost of debt, though Harris & Pringle (1985) believe that those tax savings should be discounted at the cost of capital for the unlevered firm and Modigliani & Miller (1963) states that the discount rate used should be the risk-free rate.

The more recent literature points out that the cost of debt is the most reliable proxy, it comes directly from debt being exposed to the same level of risk.

2.7.2. Terminal Value

Young et al. (1999) argues that normally, the terminal value is the most important factor of any valuation estimation, highlighting the importance of this element analysis. In any company life cycle, the more the company grows, the less will be the growth rate. These can become almost zero, negative or the company can even be sold or liquidated sometime in the future.

Due to all this possibilities the estimation of the Terminal Value is important, complex and will have a major load in the final firm value. According to Young et al. the Terminal value computation differs from model to model as it is shown in Appendix A.1.

Damodaran (2002) defines the Liquidation Value, the Stable Growth Model and the Multiple Approach as methods to estimate the terminal value.

The Liquidation Value relies on how much would other entities be willing to pay for all of the company assets at a certain point in time.

$$ELV = Book\ Value\ of\ the\ Assets \times (1 + Inflation\ Rate) \times Average\ Life\ of\ Assets$$

The Stable Growth Model uses the perpetual growth model to compute the terminal value.

$$TV = \frac{CF_{t+1}}{k_{t+1} - g_t}$$

With this model is assumed that the company will grow at a constant rate forever. The cash flow and the discount rate change depending the method of valuation used, in the case of an equity valuation it is used the cash flow to equity and the cost of equity.
Finally the Multiple Approach uses a multiple to estimate the terminal value. That multiple is associated with the peer group, so using this approach will eventually shift a valuation focused on discounted cash flows to a hybrid valuation, mixing both intrinsic and relative valuation. For this reason it is preferred to use either the Liquidation Value or the Stable Growth Model in order to estimate the terminal value.

2.8. Emerging Markets

James & Koller (2000) argue that valuation's importance is increasing in emerging markets, the economies of the world are globalizing and the capital is ever more mobile. This importance is due to the greater risks and obstacles that investors face when compared to developed markets. According to the author those risks can be "high levels of inflation, macroeconomic volatility, capital controls, political changes, war or civil unrest, regulatory change, poorly defined or enforced contract and investor rights, lax accounting controls, and corruption".
Based on James & Koller (2000) research, the best approach would to use a DCF with probability-weighted scenarios that model the risks among the above mentioned that the company faces. Furthermore, an extra risk incorporated in the discount rate is not a good approach, the cost of capital should include only the non-diversifiable risk.
Incorporating the risk in the cash flows should be done by multiplying the DCF value by the probability of that scenario to happen. (Appendix A.3)

3. History

The Coca-Cola started as being a one product company, the product was the soft drink Coca-Cola. Doctor John Pemberton was a pharmacist and a wounded war veteran from Atlanta, Georgia. He was addicted to morphine to ease the pain from the war injuries, in the hunt of the cure for his addiction he accidentally mixed base syrup with carbonated water and created Coca-Cola.

The soft drink was first served to the public in May, 1886 at the soda fountain in Jacob's Pharmacy in Atlanta. Frank M. Robinson was Doctor Pemberton's partner and bookkeeper. He was the responsible for the naming "Coca-Cola" as well for designing the trademarked, distinct script, still used nowadays.

Asa G. Candler, an Atlanta businessman, bought the Coca-Cola formula from its inventor and other shareholders in 1888. Under his leadership he bet on an aggressive marketing of the product and the distribution rapidly expanded to soda fountains beyond Atlanta. He was the one who incorporated The Coca-Cola Company in 1892.

The growing demand of Coca-Cola aroused the desire to make it portable. Joseph Biedenharn, in 1894, installed bottling machinery in the rear of his Mississippi soda fountain and was the first to bottle Coca-Cola.

Benjamin Thomas, Joseph Whitehead and John Lupton were three enterprising businessmen in Chattanooga, Tennessee. They purchased the bottling rights from Asa Candler for just $1 and guaranteed exclusive rights to bottle and sell Coca‑Cola in 1899. Since then they developed what became the Coca‑Cola worldwide bottling system.

The Coca-Cola Company focus is the production of syrup concentrate, being sold to various bottlers all over the world. However The Coca-Cola Company owns its anchor bottler in the USA, Coca-Cola Refreshments USA, Inc. It was incorporated in 1944 under the Coca-Cola Enterprises Inc. naming. On October 2, 2010, the North American part of the company was acquired by The Coca-Cola Company and the subsidiary's name changed to Coca-Cola Refreshments USA, Inc. This company comprised CCE's production, sales and distribution operations in the United States, Canada, the British Virgin Islands, the United States Virgin Islands and the Cayman Islands, and a substantial majority of CCE's corporate segment. Coca-Cola Enterprises, Inc. is still an independent company traded in the NYSE, it is a marketer, producer and distributor of KO's products, and moreover, it is the anchor bottler for Western Europe.

The history of the Coca-Cola bottle is presented in the Appendix B.1.

A group of investors headed by Ernest Woodruff and W. C. Bradley, acquired The Coca-Cola Company in 1919 for $25 million. The firm sold 500,000 shares of its common stock to the public at $40 per share.

In 1923, Robert Winship Woodruff, Ernest Woodruff's son, was elected president of The Coca-Cola Company.

Mr. Woodruff focus was on the quality of the product and the potential of the bottle business, and in 1928, for the first time ever sales in bottles surpassed fountain sales.

Under his leadership, Coca-Cola established as an international product, in 1930 the foreign department became a subsidiary, The Coca-Cola Export Corporation.

During 1960s, Fanta, a flavoured soft drink, Sprite, a lemon-lime drink, and TAB, the first low-calorie beverage, were introduced in the U.S. market.

Nowadays, one of The Coca-Cola Company's biggest challenges is to face the people's growing concern about high sugar products. Health institutions often criticize their products and it is affecting the company's revenues, even though zero-sugar and low-calories products are more than ever present in the KO's portfolio.

4. The Coca-Cola Company Overview

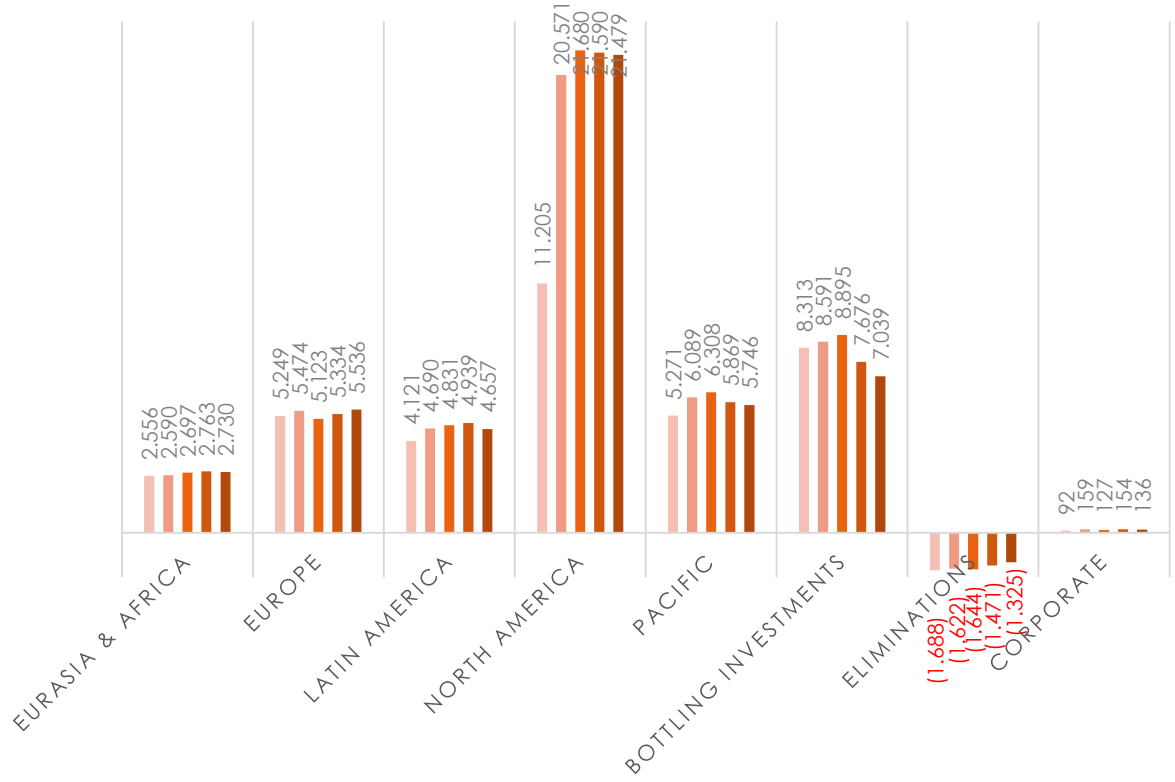
During its 125 years of history The Coca-Cola Company growth has been impressive, currently the company produces nearly 450 brands, being the number 1 provider of sparkling beverages ready-to-drink coffees, juices and juice drinks. They also have the world largest beverage distribution system, operating in more than 200 countries allows consumers around the world to consume their beverages at an impressive rate of 1.9 billion servings a day.
It is present in every continent, with products that serve many different consumers and preferences. Different countries have different products, in the Appendix B.2 it is shown an example of that, displaying the brands present in the North American and Portuguese market.

4.1. Segmentation

KO has two major business focuses, the production of syrup and bottling investments. The company defined 7 different operating segments, Eurasia & Africa, Europe, Latin America, North America, Asia Pacific, Bottling Investments and Corporate. In the Figure 1 below[1] it is possible to observe the Net Operating Revenues behaviour of the operating segments during the last 5 years, where the lighter orange correspond to 2010 and the darker orange to 2014. The item eliminations it is also included. Other key performances of the operating segments are available on Appendix B.3.

[1] Source – The Coca-Cola Company Annual Reports

Figure 1 - Net Operating Revenues (in $ Million)

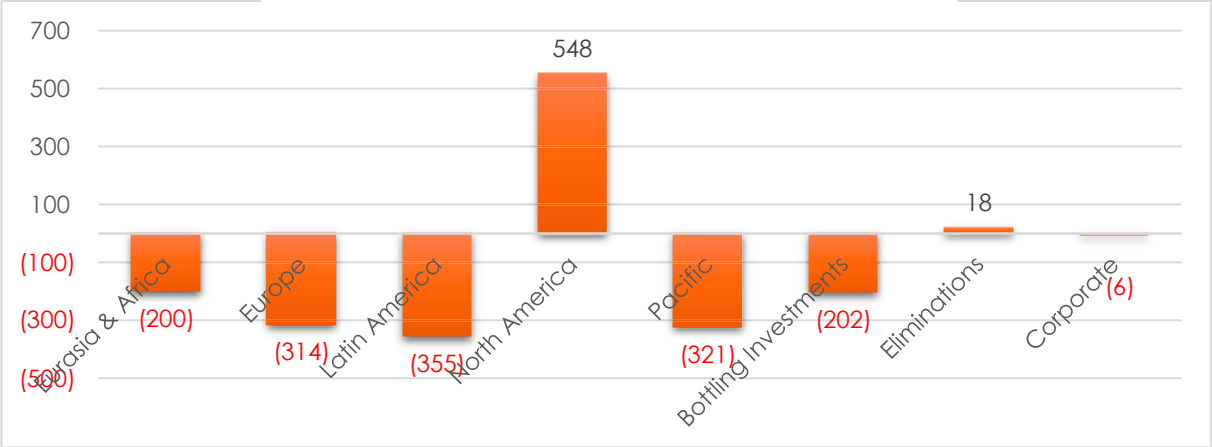


As it is noticeable in the Figure 1, the North America segment is clearly the one that has more impact, representing in the end of 2014 46,7% of the Total Net Operating Revenues, followed by Bottling Investments with 15,3%, Pacific with 12,5% and Europe with 12%. The income before tax for the company in 2014 was $ 9 325 Million.

The third quarter of this year results are not as encouraging as the same period last year. In the Figure 2[2] the variation between the two periods shows that all the segments except North America have lower Net Operating Revenues, representing for the whole company a negative $ 832 Million variation.

[2] Source – The Coca-Cola Company Reports Third Quarter 2015 Results

Figure 2 - Net Operating Revenues Variation (in $ Million)

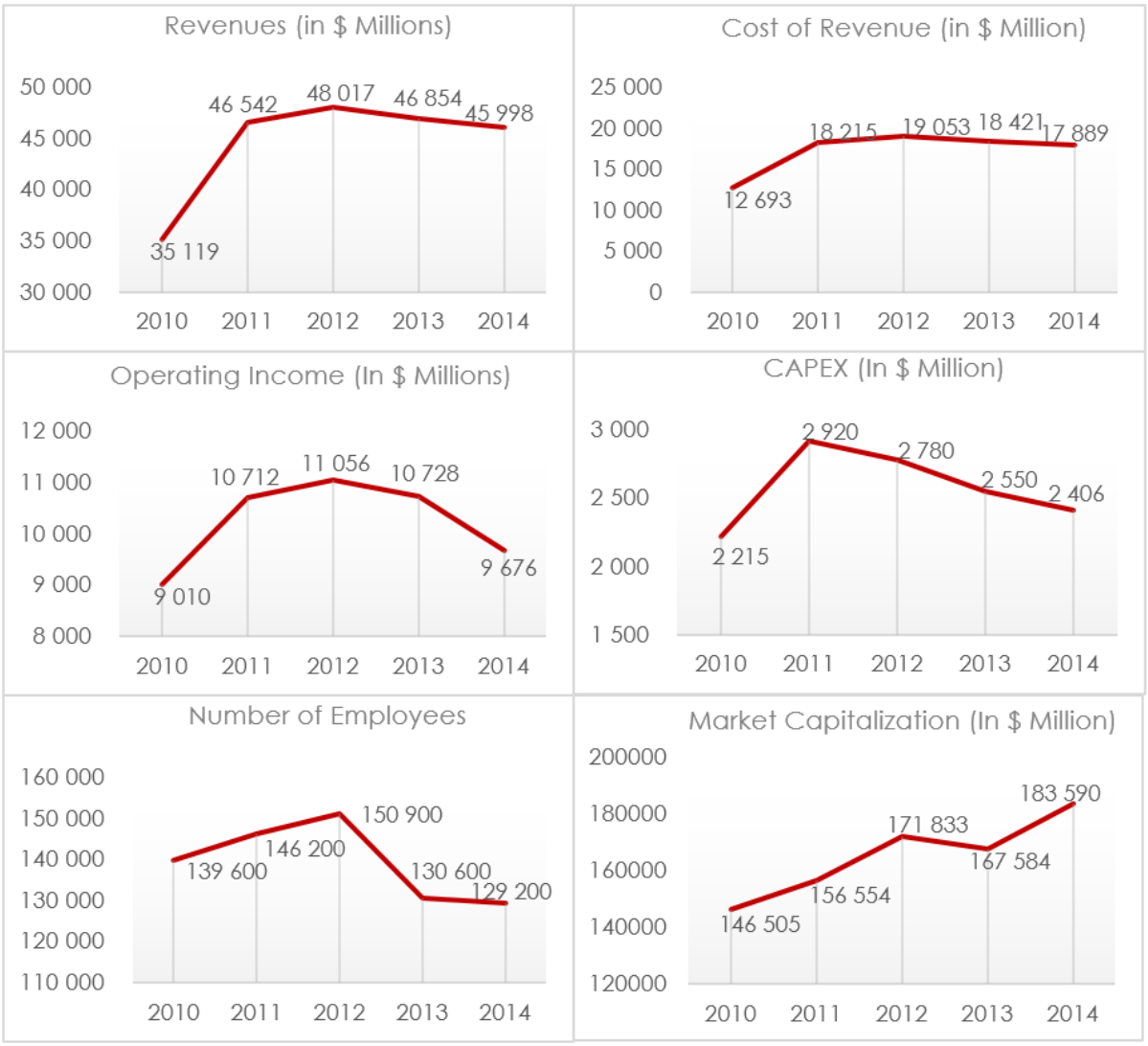


The third quarter Income Before Tax performance wasn't as discouraging as the Net Operating Revenue, displaying a decline of $ 182 Million. This performance is explained by the cost reduction of approximately $ 950 Million in the Corporate Segment, all the other segments present negative variations concerning the Income Before Tax. In the Appendix B.4 other key figures from the 2015 third quarter and respective variations are presented.

4.2. Key Figures

After the segment analysis of The Coca-Cola Company, its key figures present in the figure 3[3] show the same trend.

Figure 3 – The Coca-Cola Company Key Figures



In the period of 2010 to 2011 it is possible to observe the effect of the recovery from the world financial crisis in 2008 as well as the acquisition of the CCE North American Business in October 2010, with both revenues and expenses increasing, the operating income increased almost $ 1 702 Million. From that period onwards, revenues and cost of revenues stabilized, showing patterns of diminution in the last years. The operating income was stable between 2011 and 2013, however in 2014 faced a decrease of almost $ 1 100 Million.

Capital Expenditures have followed the 2010-2011 movement, since then it has been constantly decreasing.

[3] Source – The Coca-Cola Company Annual Reports

The number of employees grew continuously, reaching 150 900 employees in 2012, however, in 2013 the number of employees was reduced by 20 300. The company justified this reduction as a result of a deconsolidation of the bottling operations in the Philippines and Brazil, the number of employees located in the United States actually increased by 500 between both years. In 2014 the number of employees remained stable.

Concerning The Coca-Cola Company market capitalization the results are encouraging, since 2010 until 2014 the market value of the company grew $ 37 085 Million, demonstrating a fantastic performance in the financial markets during the last five years. In the month of January 2016 KO market capitalization was about $ 182 918 Million.

4.3. Strategic Plan

In October 21, 2014 The Coca-Cola Company announced 5 key initiatives[4] to reinvigorate growth.

The first initiative is "streamlining and simplifying its operating model to speed decision making and enhance local market focus", allowing the empowerment of employees around the world and speed up decision making.

Secondly, "expanding its current successful productivity program by targeting annualized savings of $ 3 Billion per year by 2019". The company pretends to achieve this goal by restructuring the global supply chain, applying zero-based budgeting across the organization, driving increased discipline and efficiency in direct marketing investments and, evidently, by applying the first initiative.

Thirdly, "refocusing on its core business model of building the world's greatest beverage brands and leading an unmatched global system of strong local bottling partners". This is an important initiative because it plans to refranchise the majority of company-owned North American bottling territories by the end of 2017 and most of the remaining territories by 2020.

The fourth initiative is "strategically targeting brand and growth investments that leverage its global strengths". Marketing have always been one the major strengths of Coca-Cola, and with this point includes previously announced plans to improve the quality and quantity of marketing. It also pretends to reinforce the disciplined strategy for future investments,

[4] Source – The Coca-Cola Company Website

prioritizing expenditure in marketplaces where the Coca-Cola system has the proper price/package architecture and execution capabilities in place.

The final initiative is "focusing on driving revenue and profit growth across markets while providing local operations with a clear line of sight and aligned compensation targets", the revenue growth will be used from 2015 onwards to drive the right behaviour in each market through the company's incentive plans.

According to Muhtar Kent, Chairman and CEO of The Coca-Cola Company, the third quarter of 2015 results "were in line with our expectations and reflect the continued execution of our strategic initiatives to restore momentum, which are beginning to take hold across our global business", "By aggressively driving productivity and streamlining the business, we are funding investments to accelerate growth. We have aligned and incented the organization against a clear revenue segmentation strategy. Finally, we have announced significant steps that evolve and strengthen our unparalleled global distribution system, including the planned creation of Coca-Cola Beverages Africa, Coca-Cola European Partners, and most recently in the United States, the National Product Supply System. Despite a continued challenging macro environment, all of us at The Coca-Cola Company remain confident in our strategies and committed to the creation of long-term shareowner value".

5. Industry Overview

The Coca-Cola Company is the world's leader in the non-alcoholic beverages and soft drinks industry. Liquid refreshment beverages (LRB) such as bottled water, carbonated soft drinks (CSDs), energy drinks, fruit beverages, ready-to-drink coffee and tea, sports beverages and value-added water are the major components of this industry.

According to the Transparency Market Research's report about the Non-Alcoholic Drinks market, in 2014, this industry worldwide sales amounted to about $ 1 500 Billion.

5.1. Risks

Nowadays the industry is led by CSDs, however customers growing health concerns has been shifting preferences towards healthier products. Criticisms from health officials, governments and similar communities are one of the reasons for the continued decline in soft drinks volumes.

In 2009, the *American Heart Association* reported that the soft drinks and sugar sweetened beverages are the largest contributor of added sugars in Americans' diets.

North America, within which stand out the U.S., is the sector's largest market, closely followed by Asia Pacific. Despite of the growing health concerns, worldwide growth in the sector is expected to remain stable over the next few years, U.S. and Europe consumption decline is offset by fast growing markets in the Asia Pacific and South America, such as India, China, Singapore, Brazil, Argentina and Chile. However, due to the changing tastes and a healthier consumer, no matter how much money is spent on marketing, the demand decline is very difficult to reverse.

In 2009, 33 states in the U.S. had a sales tax on soft drinks, driven by the obesity public concern. Having a percentage of overweight people among the highest in the world and soda consumption being strongly correlated to it, Berkeley, California was the first city to pass a tax on sugar-sweetened beverages (soda pop, sweetened teas, sugary juices, and energy drinks).

France introduced a tax on soft drinks in 2012 and Mexico in 2013. In the latest the "one-peso-per-liter" tax on sugary beverages was applied all over the country, raising the prices by 10%.

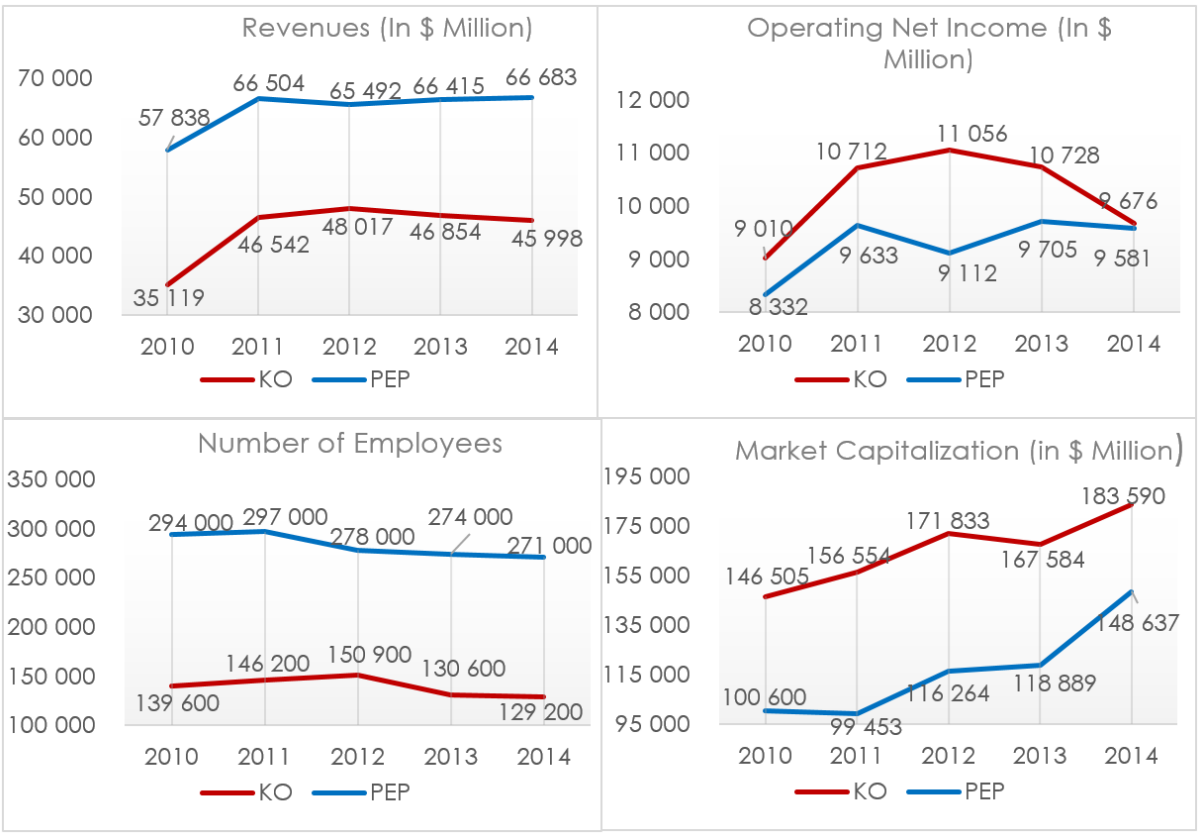
It is expected that developed countries around the world may follow the same policy, driving companies like The Coca-Cola Company to strongly invest on low sugar products.

5.2. Market Players

The market is dominated by two players, the Coca-Cola Company and PepsiCo, Inc., their business model is similar concerning the non-alcoholic beverages industry, they focus on the distribution of their drinks internationally through significant bottling companies (who depend on them to create new products, improve existing offerings and continue with the clever marketing). Both companies often boost their results purchasing smaller market players or announcing encouraging distribution agreements. In the Appendix B.5[5] it is observable the top 15 most valuable brands and most of them belong to The Coca-Cola Company and Pepsico.

In the figure 4[6] there is a comparison between the companies. In 2014, revenues from both companies have amounted about $ 112 681 Million.

Figure 4 – The Coca-Cola Company vs PepsiCo, Inc.



PepsiCo has clearly higher revenues, however KO has an operating net income that has been greater than the rival for the last 5 years, this situation can only be justified by higher cost from Pepsi.

[5] Source – Statista 2015
[6] Source – Reuters

Although The Coca-Cola Company clearly domination of the industry, PepsiCo, Inc. is getting closer by the year to the competitor. Pepsi is more diversified, focusing not only on beverages, but also on the snack food category, this could help the KO's rival to better face off the challenging macroeconomic environment, therefore presenting a structure more prone to growth in the future.

5.3. Industry Growth

The Transparency Market Research, a credited market intelligence company, elaborated a report quoted by Reuters named "*Non-Alcoholic Drinks Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2014 – 2020*".

According to this report the increasing disposable income will help this industry to grow its worldwide sales from $ 1 435.25 Billion in 2013 to $ 1 937.73 Billion in 2020, with a CAGR of 4.3% between the periods.

There is no information or reason to believe that during this period, this industry would experience periods of accelerated growth or slow growth, therefore, it is assumed that the industry will grow at a constant decreasing growth rate as it approaches 2020, as the figure 5 presents.

Figure 5 – Non-Alcoholic Drinks Industry Projected Growth

	2013	2014	2015	2016	2017	2018	2019	2020
$ Billion	1 435	1 508	1 582	1 655	1 728	1 801	1 875	1 948
Annual CAGR		2.52%	2.40%	2.29%	2.19%	2.10%	2.01%	1.93%

Although all the risks that this industry faces, the introduction of new products, new flavours, emerging markets increasing demand, low calories and zero sugar products, will allow the growth above presented.

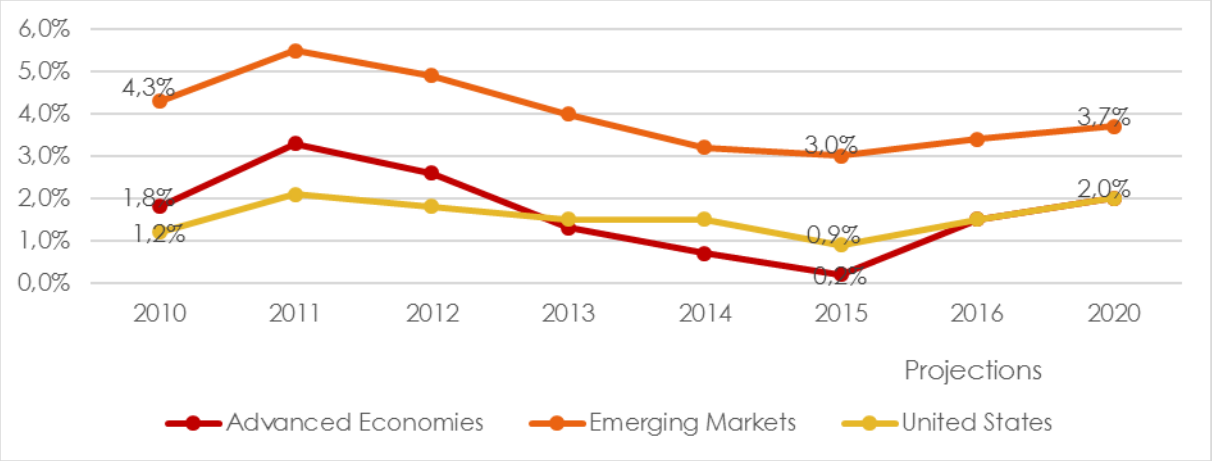
6. Macroeconomic Overview

6.1. Inflation

A controlled level of inflation can be seen as healthy for the economy and can even boost growth. However, high levels of inflation can hurt capital expenditures, increase the cost of production of a company, reduce demand for the product and by reducing the value of money can affect exchange rates, injuring exportations.

In the figure 6[7], extracted from the table in the Appendix C.1, it is possible to observe both historical and projected (2015. 2016 and 2020) median inflation rates for Advanced Economies and Emerging Markets.

Figure 6 - Median Inflation Rate



Advanced economies are experiencing a decrease in the level of inflation since 2011, being projected to achieve the level of 0.2% in 2015. Europe is a major contributor for this value, low values of growth are associated with low values of inflation Europe is struggling to reverse this situation taking serious measures to increase growth and consequentially the inflation level. The IMF projects a value of 2% in 2020 for the Advanced Economies.

The United States inflation has been similar to the Advanced Economies, with the IMF projecting the exact same level for 2016 and 2020.

The Emerging Markets inflation is the opposite, having historical high levels of inflation, the IMF expects to have 3.7% inflation in 2020.

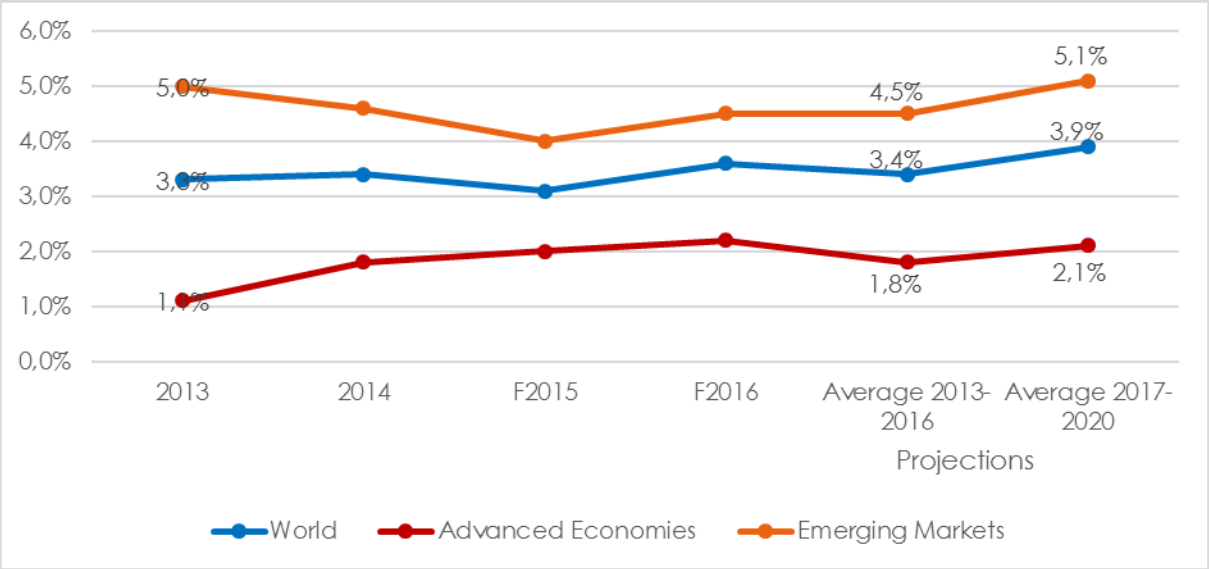
[7] Source – International Monetary Fund, "World Economic Outlook", October 2015

6.2. Gross Domestic Product

GDP is an excellent indicator of economic health, if a positive change is recorded translates into growth, if negative decline.

The figure 7[8] presents both historical and projected percentages of the Real GDP percent annual change for the World, Advanced Economies and Emerging Markets. Once again the full table is presented in the Appendix C.2.

Figure 7 - Real GDP (Percent Annual Change)



The World GDP has a constant growth rate, it is expected to remain stable until 2020, with growth rate between 3% and 4%.

The Advanced Economies behaviour is also stable and predictable, with growth rates oscillating between 1% and 2%.

The Emerging Markets GDP follows a similar trend of the world, being expected to achieve an average growth rate of 5.1% by 2020.

6.3. Exchange Rate

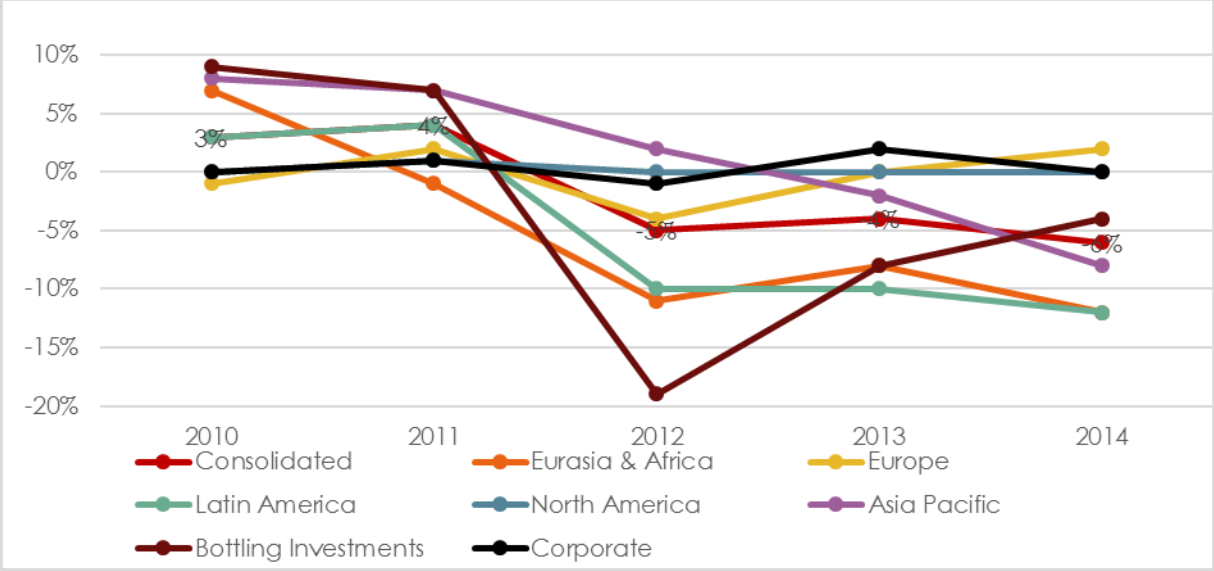
The Coca-Cola Company earn revenues, pay expenses, own assets and incur liabilities in other currencies that are not U.S. dollar, in 2014, $ 26.2 billion of net operating revenues come from 70 different currencies outside the United States.

[8] Source – International Monetary Fund, "World Economic Outlook", October 2015

U.S. dollar fluctuations against major currencies affect the items above mentioned, due to the geographic diversity of the operations, emerging and developing markets currency weaknesses might be offset by strengths in others over time.

In the figure 8[9] is presented the historical impact of the exchange rate on the Operating Income, consolidated and segmented. In the Appendix C.3 the table with the percentages is available.

Figure 8 - Exchange Rate Impact on Operating Income



In broad terms, it is possible to observe the Asia Pacific declining trend, the North America almost zero impact, the Eurasia & Africa and Latin America declining and stabilizing as having a negative impact, the Bottling Investments wavering behaviour and the Corporate non-significant impact.

Europe segment is majorly affected by the fluctuations between the U.S. dollar and both British pound and Euro, when there is a stronger U.S. dollar, as it happened in 2012, the segment gets negatively affected. In the last five years, excluding 2012, the impact has been close to zero.

These fluctuations between the U.S. dollar and other major currencies are very hard to predict, based on that, this dissertation will assume zero impact due to simplicity purposes.

[9] Source – The Coca-Cola Company Annual Reports

7. DCF Valuation

7.1. Explicit Period

As it was mentioned in the section 3.3., The Coca-Cola Company have announced a strategic plan to ignite growth. This plan contains structural changes and goals until 2020. Therefore, and following the company's projection, the explicit period length will be accordant to the plan, six years.

With the available information it is very hard to make projections exceeding this period, doing so will increase the likelihood of making wrong projections. Most of the investments announced, financial and operational objectives are due in 2020. At this time will be assumed that the company is in steady state, running at a perpetual growth.

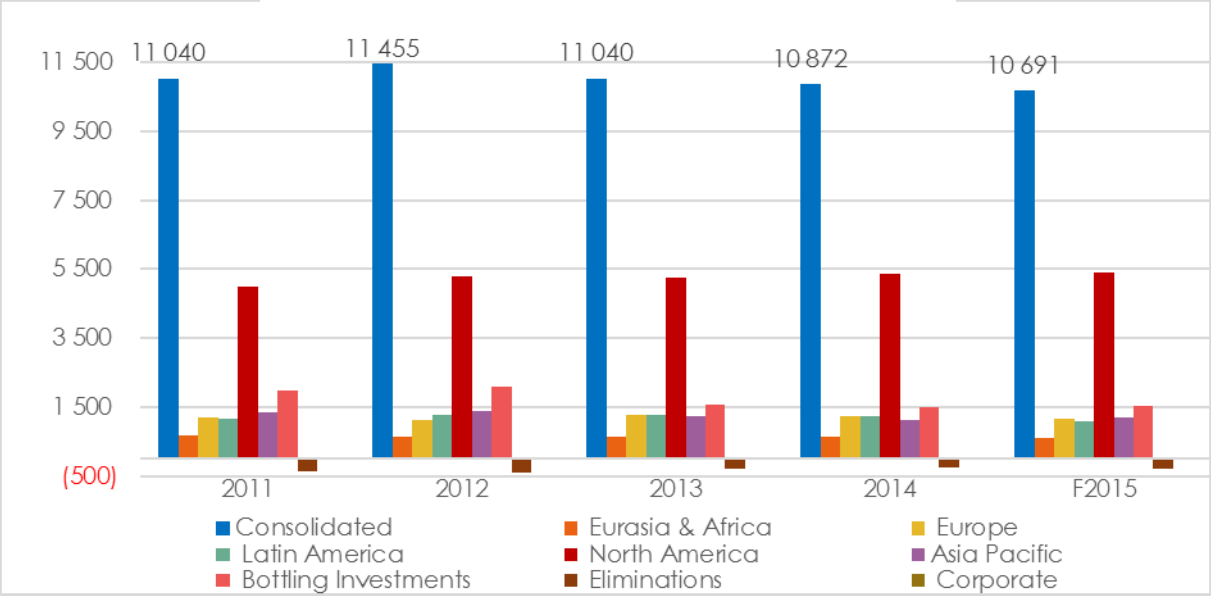
7.2. FCFF Inputs

7.2.1. Revenues

With the third quarter 2015 results already released, the total 2015 revenues are only missing the fourth quarter results to be completed. Therefore it will be used an historical approach to achieve the revenues by operating segment. The method used was to have a today's percentage of the last 4 years average, after having that percentage by quarter and by operating segment, the first three quarters average percentage was computed and multiplied by the last 4 years average fourth quarter revenues.

In the figure 9 the fourth quarter revenue trend are observable, along with the 2015 forecast. These values will be added to the results already published to achieve the full year revenues.

Figure 9 - Fourth Quarter Revenues (in $ Million)



The strategic plan released by the company in 2014 foresees important structural changes, namely the refranchising of its bottling operations. With these changes the company gets closer to achieve the $ 3 Billion savings goal by 2019, but revenues might also be affected.

Concerned with the growth stagnation, the company is funding investments to hasten growth by aggressively driving productivity and streamlining the business.

Furthermore, the company is clearly against a revenue segmentation strategy and seeking growth investments that leverage its global strengths.

Developed economies are contracting demand to most of The Coca-Cola Company products, mainly due to their high sugar content. Health institutions negative recommendations and social media contagious opinion are risks described by the company as a challenging macroeconomic environment.

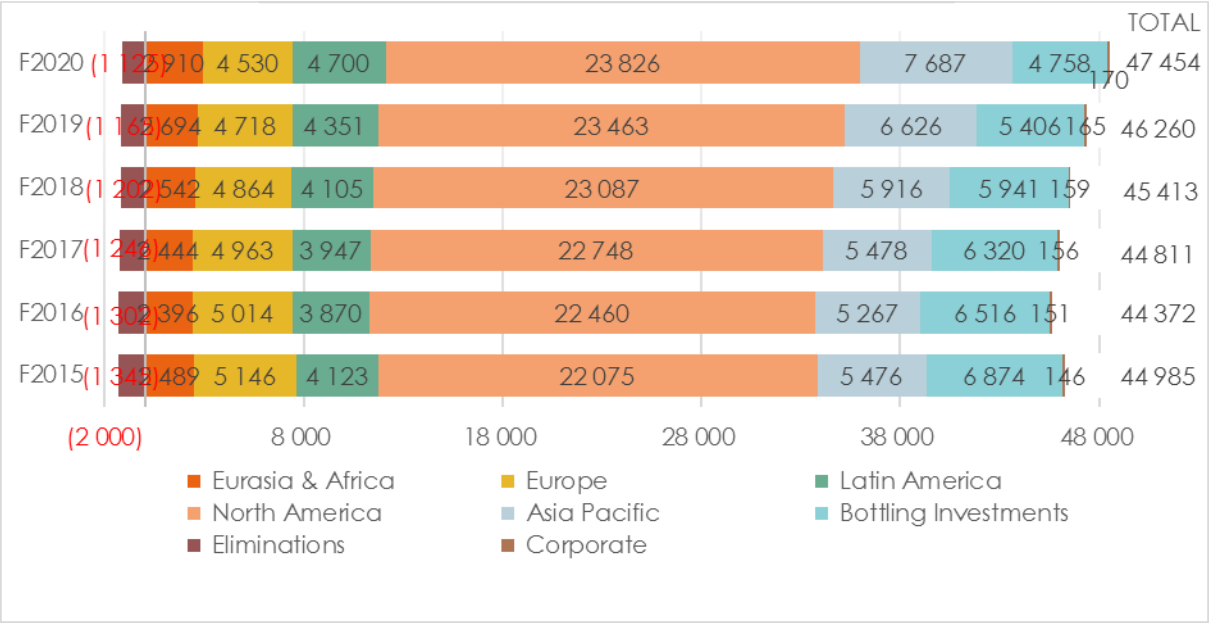
The effort to shift marketing towards low-sugar products as Coca-Cola Zero, Powerade Zero or Diet Coke is notorious, however, instead of reignite growth, cannibalism between products are more common. Coca-Cola Zero and Diet Coke are good examples of cannibalism, in the last quarter, global sparkling beverage volume growth was significantly driven by the Trademark Coca-Cola, the brand Coca-Cola grew 1%, Coca-Cola Zero grew 8% and the Diet Coke offset the progress by an 8% decline.

Based on the company's plans and the macroeconomic environment it is possible to conclude that there will be a convergence between developed and emerging markets. As the company

announced, the savings obtained will serve investments to leverage global strength, moreover, the refranchising of bottling operations will allow the company to focus on the core business, establishing strong partnerships with local bottlers and build an unparalleled global distribution system.

In the Figure 10 the projections per segment are available, with the data and respective growth rates displayed in the Appendix C.4.

Figure 10 - Revenues Forecasts (in $ Million)



The projected revenues for 2016 were computed as a weighted average of the last 4 years per operating segment. It was defined a weight of 50% for the year 2015, 20% for 2014 and 2013, and 10% for 2012. The reasoning for this calculation was that in 2015 the effects of the structural plan were felt, however the last years' performance also has impact on the 2016 year, therefore, with a lower weight, that impact should also be taken into account.

Eurasia & Africa is an operating segment with a lot of potential, and The Coca-Cola Company has already expressed the determination to invest on it, examples are the creation of Coca-Cola Beverages Africa, aiming to develop distribution and retail channels in the region. After F2016, it is predictable that the segment will grow at a yearly cumulative 2%.

Europe behaviour has been fairly stable over the last recent years. However, due to health concerns and possible expansion of the sugar tax in European countries, the demand for KO's products is expected to contract. The sales decrease from F2015 to F2016 was 3.6%, and from

that year onwards Europe will experience a yearly cumulative 1% sales reduction, amounting to $ 4 530 Million in 2020.

The Latin America segment is a question mark regarding its performance, it had been showing a positive and consistent sales performance until 2014, dropping 5.7% and being expected to drop 11.5% in 2015 regarding the previous period. However, expansion to other beverage categories, affordability strategies and accelerating market investment levels makes it expectable for the segment to grow. Similarly to Eurasia & Africa it is expected to grow at a cumulative 2% per year, presenting a positive growth only in 2020.

North America is a segment that in 2014, represented about 47% of the company's total sales, is engaged in building solid, value-creating brands by well-defined brand, price, package and channel strategy. The brand is so rooted in the region's culture that despite of all the health concerns and possible extra taxes it is not expectable that the demand will be affected negatively, however it is also not expected any significant growth. Therefore the formula applied to forecast the 2016 sales value was applied in the following years until 2020.

Asia Pacific is the most volatile segment, making it very difficult to predict the sales behaviour. Nevertheless, last year India became the sixth largest market by volumes for Coca-Cola, surpassing Germany. Economic growth in emerging economies such as China and India is driving the creation of an upper middle class, which is increasing sales of international products such as Coke Zero. Consumers in the U.S. are shifting towards healthy beverages, the less saturated markets in Middle East and Asia Pacific, would provide a profitable market for KO.

After F2016, it is expectable that the segment will grow at a yearly cumulative 4% rate, the highest from all the segments.

The bottling investments segment consist primarily of Company owned or controlled bottling, sales and distribution operations. Mainly concerned in cost management after the strategic plan announcement and with the franchising of some of these operations it is expectable that both revenues and costs drop at a yearly cumulative -3% rate.

Corporate and Eliminations are predictable to follow their historical trend, being the formula applied the same for the North America.

The effect of the inflation is implicit in the historical revenues, so it will be also implicit in the projections.

The CAGR (Compounded Annual Growth Rate) from 2014 to 2020 will be positive, 0.45%.

7.2.2. Operating Expenses

7.2.2.1. Cost of Goods Sold (COGS)

Water is the main ingredient in all of the company's products, historically there has never been any significant water supply difficulty, and even though it is a scarce natural resource in many parts of the world, it is not expected that the company will experience any trouble regarding their operations. Due to the variety of the other ingredients and the refranchising of the bottling owned companies, makes it very difficult to forecast a COGS based on the evolution of the raw material prices.

The COGS is usually measured as a margin of the revenues, during the last 5 years, COGS have represented on average 38.6% of the revenues. The company pretends to accomplish $ 3 Billion savings by the year of 2019, with the refranchising of the bottling companies it will be expectable that this margin would drop, as it is visible in the figure 11.

Figure 11 – Revenues, COGS and Gross Profit Forecasts

(In $ Million)	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Revenue	44 985	44 372	44 811	45 413	46 260	47 454
Growth	-2.2%	-1.4%	1.0%	1.3%	1.9%	2.6%
COGS	17 334	17 053	17 177	17 363	17 640	18 048
Margin	38.5%	38.4%	38.3%	38.2%	38.1%	38.0%
Gross Profit	27 651	27 318	27 634	28 050	28 620	29 406
Gross Profit Margin	61.5%	61.6%	61.7%	61.8%	61.9%	62.0%

Mainly affected by the Bottling Investments segment, it is expectable that the COGS margin would decrease at a 0.1% rate until 2020, reaching 38% margin of revenues by 2020.

7.2.2.2. Other Operating Expenses

This item contains expenses directly linked to the revenues, therefore it will be used the same method as in the COGS. The strategic plan specially design to reignite growth and cut costs will once again taken into account and the average of the last 5 years expenses will decrease at a cumulative rate of 0.1% per year, similarly to COGS.

Figure 12 – Revenues and Other Operating Expenses Forecasts

(In $ Million)	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Revenue	44 985	44 372	44 811	45 413	46 260	47 454
Growth	-2.2%	-1.4%	1.0%	1.3%	1.9%	2.6%
Operating Expense	34 041	33 489	33 730	34 093	34 636	35 435
Margin	37.1%	37.0%	36.9%	36.8%	36.7%	36.6%

In the Figure 12 above the projections are observable. It is expectable that the margin of Other Operating Expenses be 36.6% at the end of the estimation period.

7.2.3. Changes in Working Capital

The Working Capital is defined by the difference between the current assets and the current liabilities, but when this item is used in valuation, not all of the current assets and liabilities are included.

According to the Discounted Cash Flow methodology, the items to be included in the computation of the Working Capital are Net Accounts Receivable, Inventories, Income Tax, Other Current Assets, Accounts Payable and Income Tax Payable. In Figure 13 the items projected are displayed.

Figure 13 – Changes in Working Capital Forecasts

(In $ Million)	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Net Accounts Receivable	4 787	4 754	4 807	4 860	4 937	5 034
Inventories	3 091	3 030	3 023	3 015	3 021	3 038
Income Tax	130	129	131	132	134	137
Other Current Assets	347	344	348	352	358	365
Accounts Payables	2 034	1 994	1 989	1 984	1 988	1 999
Income Tax Payable	497	493	499	504	512	522
Working Capital	5 824	5 770	5 821	5 872	5 949	6 053
Changes in Working Capital	(257)	(54)	51	50	78	103

From all the items above, only Inventories are computed as the average of the last 5 years Inventories weight over COGS, all the others are computed as the average item weight over Revenues.

By summing up the first 4 items and subtracting Accounts Payable and Income tax Payable, the Working Capital Value is computed. The Changes in Working Capital are the difference between the current period Working Capital and the last period.

The Revenues behaviour and the COGS stable pattern, make Changes in Working Capital behaviour very similar to the Revenues growth behaviour.

7.2.4. Capital Expenditures (CAPEX)

Due to the company cost savings projections, Capital Expenditures are going to slightly decrease over the years. CAPEX are therefore expected to remain stable as a Property, Plant & Equipment margin equal to the last 5 years' average, 10.87%.

In the case of the PP&E, when compared to the costs, a higher decreasing rate was applied to take into account the refranchising of the bottling companies that are going to take place, 2% per year. The franchising of a bottling company will have an immediate impact on the PP&E, strongly decreasing its value.

Figure 14 – CAPEX Forecasts

(In $ Million)	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
PP&E	23 284	22 079	21 402	20 781	20 243	19 816
Sales Margin	51,8%	49,8%	47,8%	45,8%	43,8%	41,8%
CAPEX	2 532	2 401	2 327	2 260	2 201	2 155
PP&E Margin	10,9%	10,9%	10,9%	10,9%	10,9%	10,9%

As it is observable in the Figure 14 above, the PP&E will drop significantly, reaching values similar to 2009, curiously, a year before KO bought CCE.

CAPEX won't drop as significantly as it should be expected, as a result of the need to invest in order to approach developing markets.

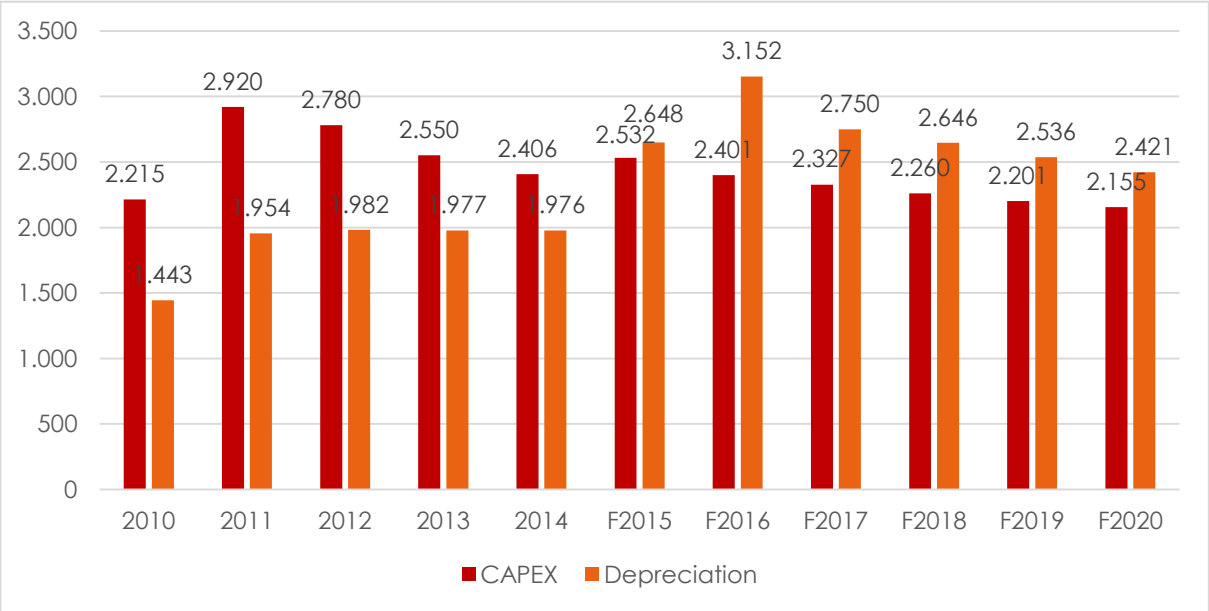
7.2.5. Depreciation & Amortization

The depreciation and amortization are items that decrease the value of PP&E, once D&A is subtracted, Net PP&E are reached.

$$D\&A = Net\ PP\&E_{t-1} - Net\ PP\&E_t + CAPEX_t$$

Using the formula above is possible to achieve D&A for the exercise, since all the other items are already projected.

Figure 15 – D&A vs CAPEX (in $ Million)



In the Figure 15 the relation between D&A and CAPEX is observable, and historically D&A has been lower than CAPEX. Due to the company's changing strategy, it is expectable that the opposite relation occurs. This is the result of investing less than the amount needed to compensate for the annual wearing out of the tangible assets.

The outcome of such strategy will eventually be the convergence between the two items, with the CAPEX representing about 90% of the depreciation by 2020.

7.3. Weighted Average Cost of Capital (WACC)

As explained in the topic 1.6.1., the WACC is an important financial tool commonly accepted by a large majority of authors. The weights of the capital components should be expressed in market value terms, and its computation will be explained ahead.

After all the calculations made, the WACC is equal to 5.69%, as the figure 16 displays.

Figure 16 – WACC Inputs

Risk-Free Rate	2.27%
Adjusted Beta	0.758
Equity Risk Premium	5.81%
Cost of Equity	6.68%
Tax rate	24.0%
Cost of Debt	2.33%
E/V	79.90%
D/V	20.10%
WACC	**5.69%**

7.3.1. Market Value of Equity

The market value of equity was extracted in 16/11/2015, as a product of the common shares outstanding, which amounted to 4 348 985 156, times the price (close) of each share, $ 41.96, resulting in about $ 182 483 Million. As there are no warrants or management options disclosed, these are assumed to be zero.

7.3.2. Cost of Equity

According to the CAPM, there are three inputs to calculate this item, the market risk free rate, the Beta and the Equity Risk Premium.

Market Risk Free Rate

The risk free rate used in this dissertation is the USA 10-year Treasury Bill Rate, it was 2.27% in 16/11/2015. Since 2010 to the end of 2014, this rate has been relatively constant, achieving its maximum, 3.83% in March 2010, and its minimum, 1.47% in July 2012. Therefore, due to comparison purposes, the risk free will assume the value at the date referenced above.

Beta

The raw beta, was computed with a regression of the KO stock against the market (S&P500) daily returns between 17/11/2014 and 16/11/2015, amounting about 0.637.

Being raw beta a historical measure, there was a need to compute the adjusted beta, an estimate of KO's future beta. By applying the formula developed by Bloomberg it was achieved the value of 0.758 for the adjusted beta.

Equity Risk Premium

This item is used by investors as a reference of how much premium they would require in order to invest in the market where the company operates. The value of 5.81% was assumed, estimated by Damodaran in July 2015.

7.3.3. Market Value of Debt

The market value of debt is computed by summing the market value of the operating leases, bonds and loans.

The operating leases are estimated by the company until 2020, by discounting them at the cost of debt rate the market value is reached. The market value of bonds is achieved by summing all the bonds issued amount times the last price. Finally, The Coca-Cola Company has one loan, maturing in September 2017, so the market value will be very similar to the book value.

The market value of debt amounts to $ 45 906 Million.

7.3.4. Cost of Debt

As referred in the topic 1.6.2. the cost of debt is computed by summing the risk free rate and the company default spread.

The risk free rate is the same assumed for the cost of equity, but instead of using a standard 10 year rate the maturity will be the weighted average maturity for the bonds, which is 7 years (USA 7-year Treasury Bill Rate). This rate was 2.02% in 16/11/2015.

The company default spread is the weighted average of each bond difference between its yield to maturity and the risk free referenced for the bond's currency (spread).

At 19/11/2015 the KO debt outstanding traded in the market was about $ 30 523 Million, compounded by 42 bonds. There were three currencies utilized, the US dollar, Euro and the Swiss Franc, the maturity for all the bonds was assumed to be the weighted average (7 years), the risk free for Euro the 7-year German Government Bond and for the Swiss Franc the 7-year Swiss Government Bond.

The final spread was achieved by multiplying each bond's spread by the weight of its debt outstanding, and in the end sums them all, reaching a rate of about 0.31%.
By summing these two components the cost of debt achieved was of 2.331%.

7.3.5. Effective Tax Rate

The effective tax rate was assumed to be an average of the last 4 years effective tax rate present in The Coca-Cola Company's annual reports. The year 2010 effective tax rate was excluded due to an abnormal tax benefit related to the re-measurement of the equity investment in CCE to fair value upon the acquisition of CCE's North American business, yielding an atypical effective tax rate for the year.
The effective tax rate assumed is 24%.

7.4. DCF Valuation Results

The variables above explained and forecasted were used to compute the FCFF, as it is observable in the figure 17.

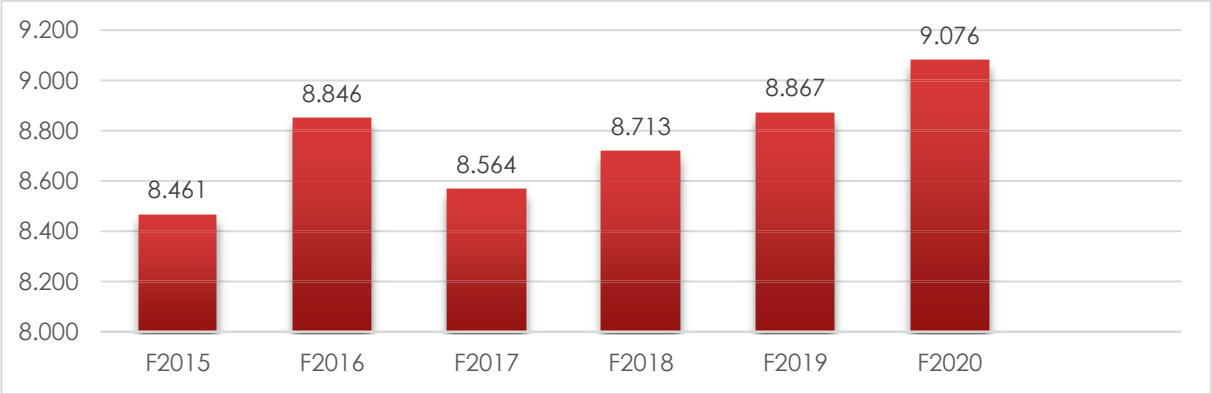
Figure 17 – Valuation Results

(in $ Million)	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Revenue (+)	44 985	44 372	44 811	45 413	46 260	47 454
Cost of Revenue (-)	17 334	17 053	17 177	17 363	17 640	18 048
Other Expenses (-)	16 707	16 435	16 553	16 730	16 996	17 387
EBIT	10 944	10 883	11 081	11 320	11 624	12 019
Taxes (-)	2 855	2 842	2 888	2 944	3 014	3 105
D&A (+)	2 648	3 152	2 750	2 646	2 536	2 421
Changes in NWC (-)	-257	-54	51	50	78	103
CAPEX (-)	2 532	2 401	2 327	2 260	2 201	2 155
FCFF	8 461	8 846	8 564	8 713	8 867	9 076
Discount factor	1,00	0,95	0,90	0,85	0,80	0,76
PV of Cash Flows	8 461	8 370	7 666	7 380	7 106	6 882
PV of Terminal Value						179 755
Net Debt	10 528					
# shares outstanding	4 349					
Target Price	*$ 49.46*					

It is important to notice that KO's last 5 years' average payout ratio was 51.7%, however, due to the company's growth it is expectable that this ratio would increase, so it was assumed a dividend payout ratio of 60%.

The behaviour of the FCFF confirms the inversion of a negative trend, as the result of the 2014's strategic plan. The Coca-Cola Company will grow in a constant and sustainable way reaching the steady state in 2020.

Figure 18 – FCFF Behaviour



In the figure above, it is important to mention that the decrease from F2016 to F2017 is explained by the D&A behaviour. In 2016 the Net PP&E will experience a major reduction, as a result of the Bottling Investments franchising, consequently, a large number of factories will be removed from the company's assets and will affect the FCFF performance.
As explained in the Literature Review section, the FCFF of each year were discounted at the firm's WACC to achieve their present value.

7.4.1. Perpetual Growth Rate

Nowadays KO's sales in North America represent almost half of the company's total sales, however, it is expectable that developing markets like Latin America or Asian Pacific increase its weight. Therefore a worldwide indicator should be used in order to capture this expected sales balance among the world.
The perpetual growth rate used to determine the Terminal Value was the expected 2019-2020 CAGR for the Non-Alcoholic Drinks industry, as it is observable in the Figure 5 contained in the topic 4.3.

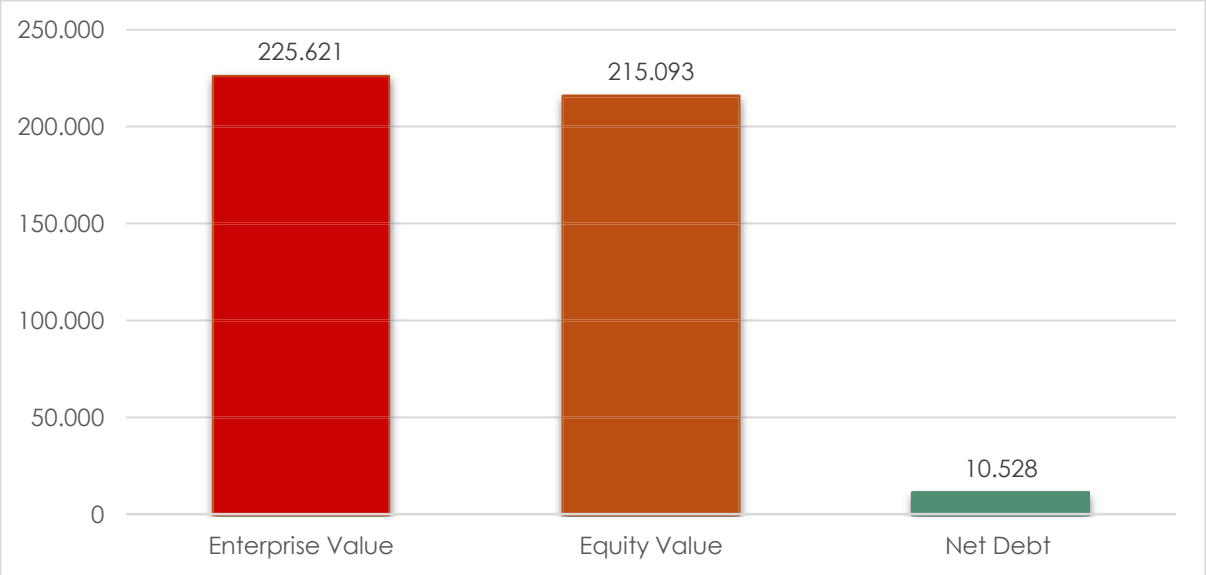
7.4.2. Net Debt

The Net Debt projected for 2015 was computed as a sum of both Short Term and Long Term Debt, subtracting Cash & Cash Equivalents.
The Coca-Cola Company debt structure plans foresee the liquidation of $ 3 552 Million in 2015 and there are no plans regarding neither new debt nor Short Term debt.
In this case the Net Debt of the Company is positive, meaning that there is more debt than cash.

7.4.3. DCF Valuation Analysis

If a potential buyer approaches The Coca-Cola Company pretending to buy it, he would probably base on the Enterprise Value to make an offer. However due to the fact that its ownership structure is well spread (the major shareholder is Berkeshire Hathaway Inc with 9.2% of the company) would be hard to negotiate.
In the Figure 19 the Enterprise Value, the Equity Value and the Net Debt values are presented.

Figure 19 – DCF Valuation Results



In order to achieve KO's fair share price, the Equity Value needs to be computed, being equal to the Enterprise Value minus the Net Debt, and afterwards divided by the number of shares outstanding.

At the date of 22 January 2016, The Coca-Cola Company has closed with a share price equal to $ 42.06, clearly inferior than the $ 49.46, considered to be the fair value.

It is possible to conclude that the company is being undervalued by the market, being expectable that the market price would meet the fair value some point in the future.

7.4.4. Sensitivity Analysis

In order to test major assumptions made in this valuation, a sensitivity analysis must be performed. The first sensitivity analysis tests two of the most critical inputs in a DCF valuation, the WACC and the terminal growth rate.

In figure 20 both WACC and terminal growth rate varies by 0.5% positive and negative, with the respective share price result.

Figure 20 – Share Price ($), with varying WACC and g

		WACC						
		4.19%	4.69%	5.19%	**5.69%**	6.19%	6.69%	7.19%
	0.43%	53.55	47.19	42.17	38.10	34.74	31.92	29.52
	0.93%	60.21	52.14	45.97	41.09	37.14	33.88	31.14
	1.43%	69.29	58.61	50.78	44.78	40.05	36.21	33.04
g	**1.93%**	82.40	67.44	57.07	**49.46**	43.63	39.04	35.31
	2.43%	102.98	80.18	65.64	55.57	48.18	42.52	38.05
	2.93%	139.96	100.18	78.03	63.91	54.12	46.94	41.45
	3.43%	225.84	136.10	97.46	75.94	62.23	52.72	45.74

Represented by a green colour, are higher share prices, and as it fades to red, the share price decrease.

Logically, as WACC increases the share price decrease, representing a higher cost of capital to the firm. The terminal growth rate behaves in an opposite way, as it increases, the company's value also increase.

As stated before, with a base case scenario, WACC equal to 5.69% and g equal to 1.93%, the share price represents $ 49.46. In the worst case scenario the share price would be $ 29.52 and in the best case scenario, $ 225.84. It is important to mention that neither of these scenarios is likely to happen, being extreme WACC and g values.

The Coca-Cola Company pretends to invest on low calories products, emerging markets and quality marketing, combining to it a cost saving policy based on the focus on the core business, however, there are risks that must be tested in the sensitivity analysis.

The investment on low calories products is clearly aimed to the developed markets like Europe or North America. Carrying the risk of cannibalism to other products, this measure can slow down revenues growth or can even decline.

Emerging markets are aimed through local partnerships and innovative products that match a different type of demand, but this type of markets can be risky. As stated before in the literature review, "high levels of inflation, macroeconomic volatility, capital controls, political changes, war or civil unrest, regulatory change, poorly defined or enforced contract and investor rights, lax accounting controls, and corruption" are risks considered in the analysis.

The cost savings announced by the company also transport some risks, the savings can be smaller than expected or it can have a negative impact on sales.

In appendix D.1., an optimistic, pessimist and base scenario are presented, even assigning to the pessimistic scenario 50% probability and 25% to the others the target share price would be above the market price.

7.4.5. DCF Valuation Conclusion

The target price achieved with this model is clearly above the $ 42.06 market price[10], the sensitivity analysis performed varying WACC and terminal growth rate inspire confidence even in unlikely scenarios and the sensitivity analysis performed to test pessimistic and optimistic scenarios was also positive.

Therefore, taking into account that my target price is above the current market price, this company is being undervalued by the market, the recommendation is clearly to **BUY**.

[10] - At 22/01/2016

8. Relative Valuation

8.1. Peer Group

As mentioned in the chapter 2.4.1. it is extremely difficult to find comparable firms to include in the peer group, in the end, the firms considered will always be somehow different from the company that we are valuing.

Being KO in the non-alcoholic beverages industry, is fairly use to come up with an initial group of firms operating in the same industry. Although the industry sales amounted to $ 1 500 Billion in 2014, the market is highly concentred with few market players representing high market shares.

After a careful analysis of the companies in this industry, the peer group was defined taking account the business model, geographic distribution, range of selling prices, quality of the products and international dimension. The financial variables used to define the peer group were the ROE, ROIC and the Revenues CAGR from 2010 until 2014, in order to measure the firms in terms of cash flow, risk and growth profile.

Figure 21 – Peer Group

Company Name	**ROE (%)**	**ROIC (%)**	**Revenues 2010**	**Revenues 2014**	**Revenues CAGR**
Coca-Cola Co	22.36	11.70	35 119	45 998	6.98%
PepsiCo Inc	30.98	11.70	57 838	66 683	3.62%
Dr Pepper Snapple Group Inc	30.76	9.70	5 636	6 121	2.09%

Pespsico and Dr Pepper Snapple Group are the peers defined, however differences from the peers may arise. For example, Pepsico not only sells non-alcoholic beverages but also some snacks, like potato chips (Lay's, Ruffles, Doritos, etc.) and others, while Dr Pepper Snapple Group is relatively small when compared to the others.

8.2. Multiples Valuation

With the aim of performing the Multiples Valuation, forward-looking multiples for 2016 were used, namely the Price to Earnings ratio and the Enterprise Value to EBITDA ratio.

The P/E ratio is an important measure, considering the company's earnings, in basic terms, it reflects how many times the earnings is an investor willing to pay.

While the P/E ratio is easily manipulated by changes in the capital structure, the EV/EBITDA is invulnerable to those. Moreover, it makes firms with different capital structures comparable.

As referenced in the topic 2.4.2. of the Literature Review, forward-looking multiples should be used, contingent on having a reliable forecast. In this case, Reuters projections were used considered to be a reliable source.

Figure 22 – Multiples Valuation Results

	1 Year Forward	
Multiples Valuation	**P/E**	**EV/EBITDA**
Coca-Cola Co	22.31	17.53
PepsiCo Inc	21.52	13.35
Dr Pepper Snapple Group Inc	22.55	12.46
Harmonic Mean	22.02	12.89
Earnings 2016	8 949	-
EBITDA 2016	-	15 812
Enterprise Value	197 080	203 811
Equity Value	186 552	193 283
# Shares	4 349	4 349
Price per Share	**42.90**	**44.44**

It is important to mention that, at 22/01/2016, both multiples present share prices above the market price, even though it is smaller than the one reached with the DCF Valuation.

9. Investment Bank Report Comparison

The purpose of this topic is to confirm the consistency of the results achieved. This dissertation will be compared with a J.P. Morgan's report published in 21 July 2015 right before the Q2 results were published.

The main recommendation that the investment bank made on The Coca-Cola Company is Neutral, based on the fact that the company have been underperforming, however earnings growth is accelerating, with the bank considering that the stock is getting closer to being interesting. Based on the latest financial results of both company and industry this position reinforces the good results trend and it makes the Buy recommendation consistent.

The price target achieved by J.P. Morgan is $ 46, being superior to the same day market's price of $ 41.38. It is also important to mention that between 2014 and 2015 the target price projected by J.P. Morgan has gone upwards from $ 43 to $ 46, once again reinforcing the appreciation of the company.

The investment bank has applied an explicit period for the DCF valuation from 2015 to 2016, significantly different from the 2015 to 2020 in this dissertation's case.

Figure 23 – Investment Bank and Dissertation Comparison

	IB		**Dissertation**	
	2015	2016	2015	2016
Revenues	44 797	45 797	44 985	44 372
% Change	2.23%		-1.36%	
Gross profit	27 145	27 960	27 651	27 318
% Change	3.00%		-1.20%	
Operating Income	10 361	11 036	10 368	10 315
% Change	6.51%		-0.51%	
Net Income	8 821	9 116	8 989	8 949
% Change	3.34%		-0.44%	

As the Figure 23 demonstrates, the Financial Key Figures differences are considerable, being this dissertation comparatively conservative. This dissertation does not expect that the management's recent execution has such relevant short term effects, being those effects visible after 2017. Moreover, the financial results have been declining since 2012 until 2014, with the information available there is no reason to expect such overturn in the next years.

At the time the investment bank concluded that the "progress is being made through productivity and higher marketing spend, and we think the stock should continue to grind

higher in the short term “, comparing to this dissertation conclusion, the drivers are the same, and the positive results as well.

Finally regarding the target price, this dissertation aims at a target price of $ 49.46, more optimistic than the $ 46 that J.P. Morgan expects.

10. Conclusion

With this dissertation, what was first a broad and general knowledge of the giant The Coca-Cola Company and the soft drinks industry, turned into a deep knowledge of both company and industry.

The purpose of the literature review was to have an overview of the valuation methods and its components and to come up with those that best suit the company. Based on several articles of prestigious authors, the DCF valuation and the relative valuation were chosen.

Being KO one of the most emblematic companies in the world, the only way to understand its present is to understand its past, reason why the history took such an important weight on this dissertation.

After knowing KO's origins, the present business model was the next step. In the company overview information from annual and quarterly reports were taken, as well as of the website, filled with important information and documents. One of the pillars of this dissertation was achieved in this topic, the company's strategic plan to what have been 2 years of performance decrease.

In the industry overview topic, the risks and growth were analysed, and the market players were first identified, being Pepsico the biggest rival of this giant multinational.

After understanding both company and industry it was important to also understand its surrounding, namely the macroeconomic environment, revealing more threats and opportunities.

This was the structure needed to perform the DCF valuation, based on assumptions to achieve its result. KO has performing average in the last couple of years, delivering lower results since 2012 until 2014. That can be justified by the weight of the North American market, a developed region concerned with health risks often associated with this industry. However, with the strategic plan aiming to increase productivity, high marketing spends and an investment on developing markets, it is expectable that KO get past this times, achieving success within the next years. The financial information that this valuation used was mostly found in the annual and quarterly reports released by the company, when combined with the knowledge gained before, it was enough to forecast both income statement and balance sheet.

The result of this valuation was a price target above the current market value, $ 49.46. This price target was subject to several sensitivity analyses, firstly to test the main components of the valuation, the WACC and the terminal growth rate, and after a test with two scenarios, an optimistic and a pessimist one, based on changes in the main operational figures. Even

applying a 50% chance on the pessimistic scenario the price target was above the market value, allowing giving the BUY recommendation with confidence.

The relative valuation main difficulty was to achieve the right peer group, unfortunately, only two peers qualified to be recognized as such.

Finally this valuation was compared with the J.P. Morgan's report of 21 July 2015. Once again, the importance of the assumptions was decisive, with different assumptions than this dissertation a different target price was achieved, differing also on the recommendation, a Neutral from the Investment Bank and a BUY from this dissertation.

The main conclusion is that this company is being undervalued by the market, representing a good investment opportunity.

Appendices

Appendices A

Appendix A.1 – Terminal Value computation according to Young et al.

Dividend Discount Model

$$TV = \frac{D_{n+1}}{(k - g)}$$

Dynamic ROE

$$TV = BV_n + \frac{(ROE_n - k_n) * BV_{n+1}}{(k - g)}$$

Discounted Cash Flow

$$TV = \frac{FCF_{n+1}}{(wacc - g)}$$

Economic Value Added

$$TV = K_n + \frac{(ROC_n - wacc) * K_{n+1}}{(wacc - g)}$$

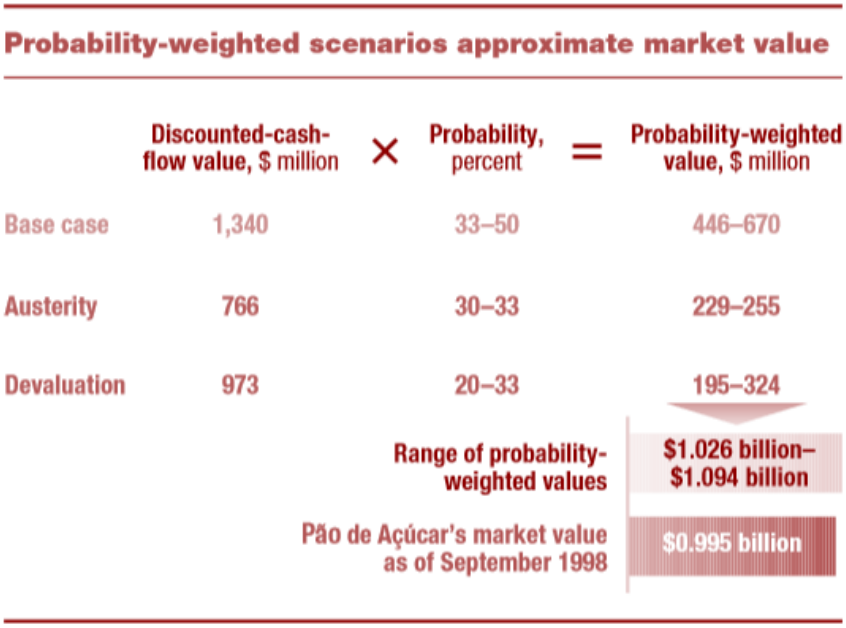
Source: Goldman Sachs

Appendix A.2 – Standard Error of Risk Premium

Estimation Period	*Standard Error of Risk Premium Estimate*
5 years	$20\%/\sqrt{5} = 8.94\%$
10 years	$20\%/\sqrt{10} = 6.32\%$
25 years	$20\%/\sqrt{25} = 4.00\%$
50 years	$20\%/\sqrt{50} = 2.83\%$
80 years	$20\%/\sqrt{80} = 2.23\%$

Source: Damodaran (2011)

Appendix A.3 – Probability Scenarios



Source: James & Koller (2000)

Appendices B

Appendix B.1 – Evolution of the Coca-Cola bottle

1. 1899 - First Coca-Cola bottle, they were straight-sided Hutchinson bottles with a metal stopper

2. 1906 - Amber-coloured and clear straight-sided bottles with an embossed diamond shaped logo are used by bottlers across the U.S.

3. 1915 - The today's famous Coca-Cola contour bottle was patented by the Root Glass Company of Terre Haute, Indiana.

4. 1923 - With the expanded availability of home refrigeration, the six-pack bottle carrier is developed by the Coca-Cola system to encourage consumers to enjoy the beverage at home.

5. 1941 - President Robert Woodruff orders that "every man in uniform gets a bottle of Coca-Cola for five cents, wherever he is, and whatever it costs the company."

6. 1950 - Coca-Cola becomes the first commercial product to appear on the cover of Time magazine. The appearance solidifies Coca-Cola as an international brand.

7. 1957 - Coca-Cola contour bottles are printed with a white label featuring both trademarks, Coca-Cola and Coke.

8. 1960 - 12-ounce aluminium Coca-Cola cans are introduced in the U.S.

9. 1977 - The Coca-Cola bottle is granted registration as a trademark, a designation awarded to few other packages. A previous study showed that less than 1% of Americans could not identify a bottle of Coke by shape alone.

10. 1993 - The 20-ounce PET contour bottle is introduced.

11. 2008 - Coca-Cola is awarded the first ever Design Grand Prix at the prestigious Cannes Lions for the brand's refreshed visual identity and packaging.

12. 2009 - Coca-Cola introduces the "plant bottle" —100% recyclable and made with up to 30% renewable, plant-based material.

13. 2015 - The Coca-Cola bottle turns 100. "The perfect liquid wrapper." - Raymond Loewy

Appendix B.2 – The Coca-Cola Company products

Aquapure
Aquarius
Bacardi Mixers *
Bacardi Premium Mixers *
Barq's
Barrilitos
Beverly
Bright And Early
Caffeine-free Barq's
Caffeine-free Coca-Cola
Caffeine-free Diet Coke
Cascal
Cherry Coke
Chippewa
Citra
Coca-Cola
Coca-Cola Black Cherry Vanilla
Coca-Cola Cherry Zero
Coca-Cola Zero
Coca-Cola Zero Caffeine-Free
Cumberland Gap
DANNON *
DASANI
Delaware Punch
diet Barq's
Diet cherry Coke
Diet Coke
Diet Coke Black Cherry Vanilla
Diet Coke with Lime
Diet Coke with Splenda
Diet Fuze Tea
diet Inca Kola
Diet Master Pour
Diet Northern Neck
Diet Sprite
Diet Sprite Zero
Dr. Pepper*
Evian *
Fanta
Fanta Sugar Free
Fanta Zero
Five Alive
Flavor Rage
Fresca
Fruitopia
Full Throttle
FUZE
FUZE TEA
Georgia
glacéau fruitwater
glacéau smartwater
glacéau vitaminenergy
glacéau vitaminwater
glacéau vitaminwater zero
Gold Peak
H2OK
Hi-C
Honest Ade
Honest Fizz
Honest Kids
Honest Tea
Honest Tea Zero
Illy *
Inca Kola
Java Monster*
Jericho
Kinley
Krest
Lift
Master Chill
Master Pour
Mello Yello
Mello Yello Zero
Mezzo Mix
Minute Maid
Minute Maid Enhanced
Minute Maid Fruit Falls
Minute Maid Juices To Go
Minute Maid Light
Minute Maid Orchards
Monster *
Northern Neck
NOS
Odwalla
Peace Tea *
Pepe Rico
Pibb Xtra
Pibb Zero
POWERADE
POWERADE PLAY
POWERADE ZERO
Red Flash
Schweppes
Simply
Southern Sun
Spring!
Sprite
Sprite Zero
Sugar Free Full Throttle
Sugar Free NOS
Sugar Free Sprite
Sunfill
Surge
TaB
Vanilla Coke
Vanilla Coke Zero
VAULT
Vault Zero
Vegibeta
Vegitabeta
Worx Energy *
Zico *

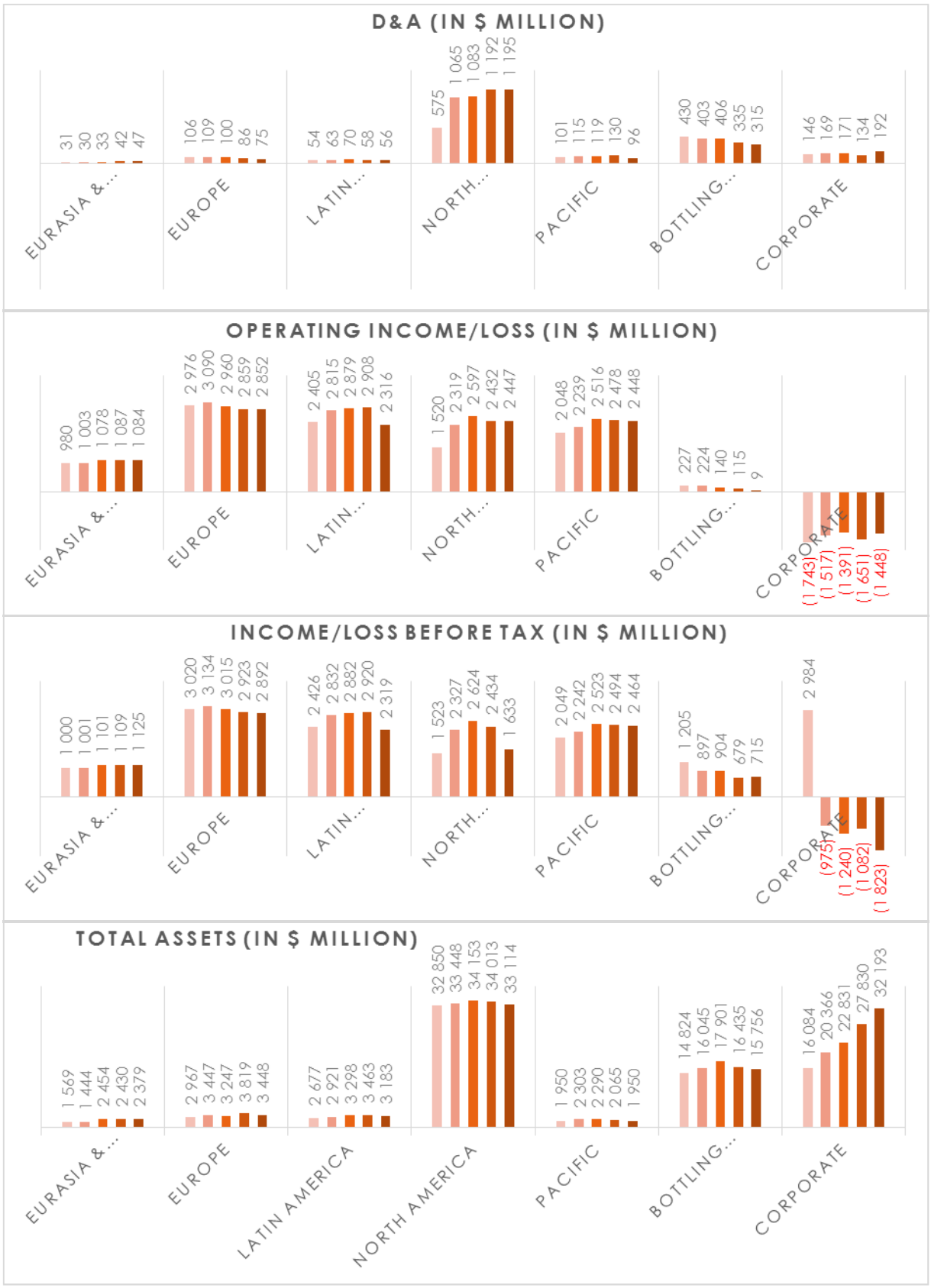
Brands @ United States of America

Aquabona
Aquarius
burn
Caffeine-free Coca-Cola
Coca-Cola
Coca-Cola light
Coca-Cola Zero
Fanta
Fanta Zero
Less is More
Minute Maid
NESTEA *
Nordic Mist
POWERADE
Sprite

Brands @ Portugal

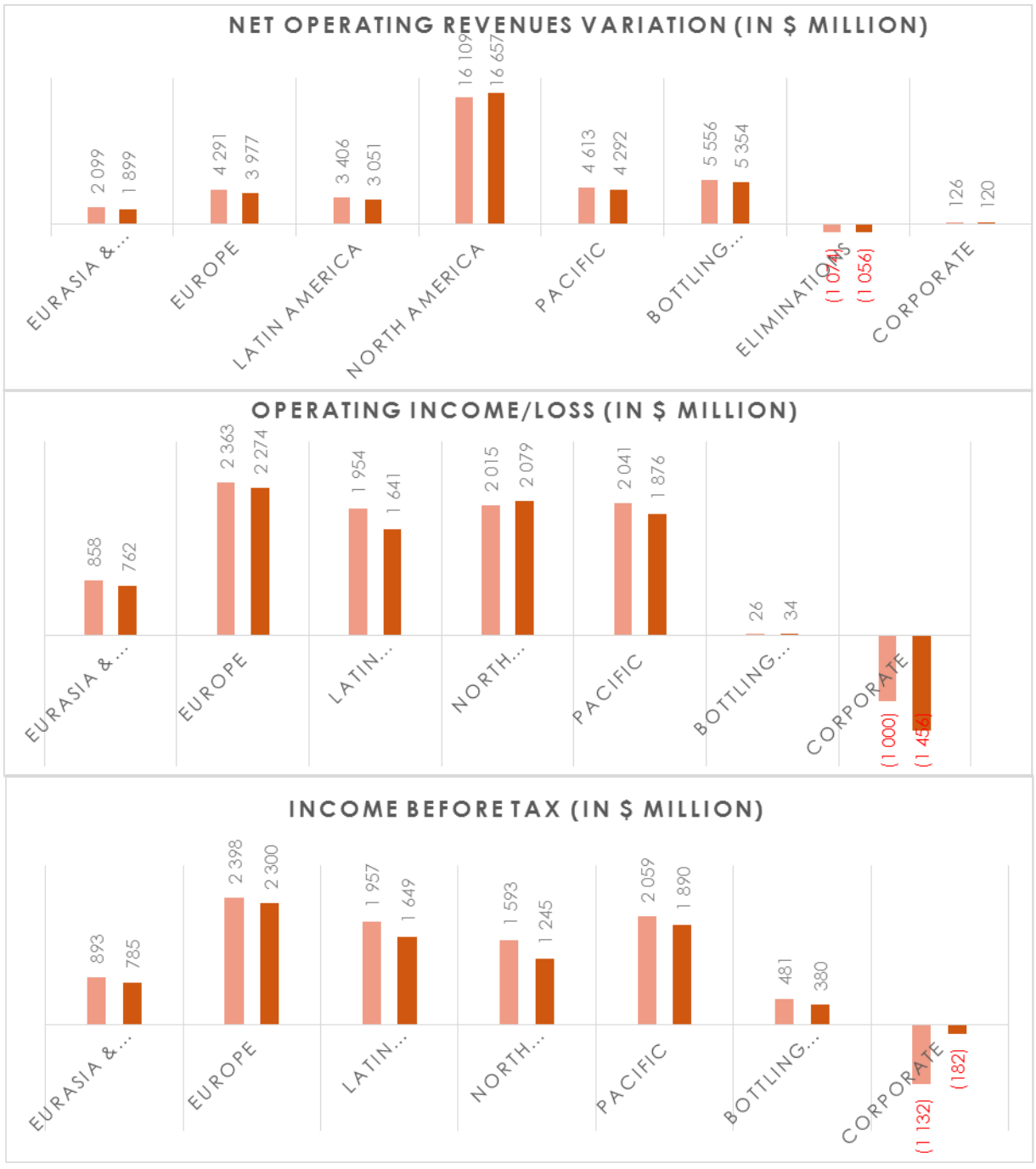
Source: The Coca-Cola Company Website

Appendix B.3 – Operating Segments Key Figures (light 2010, dark 2014)



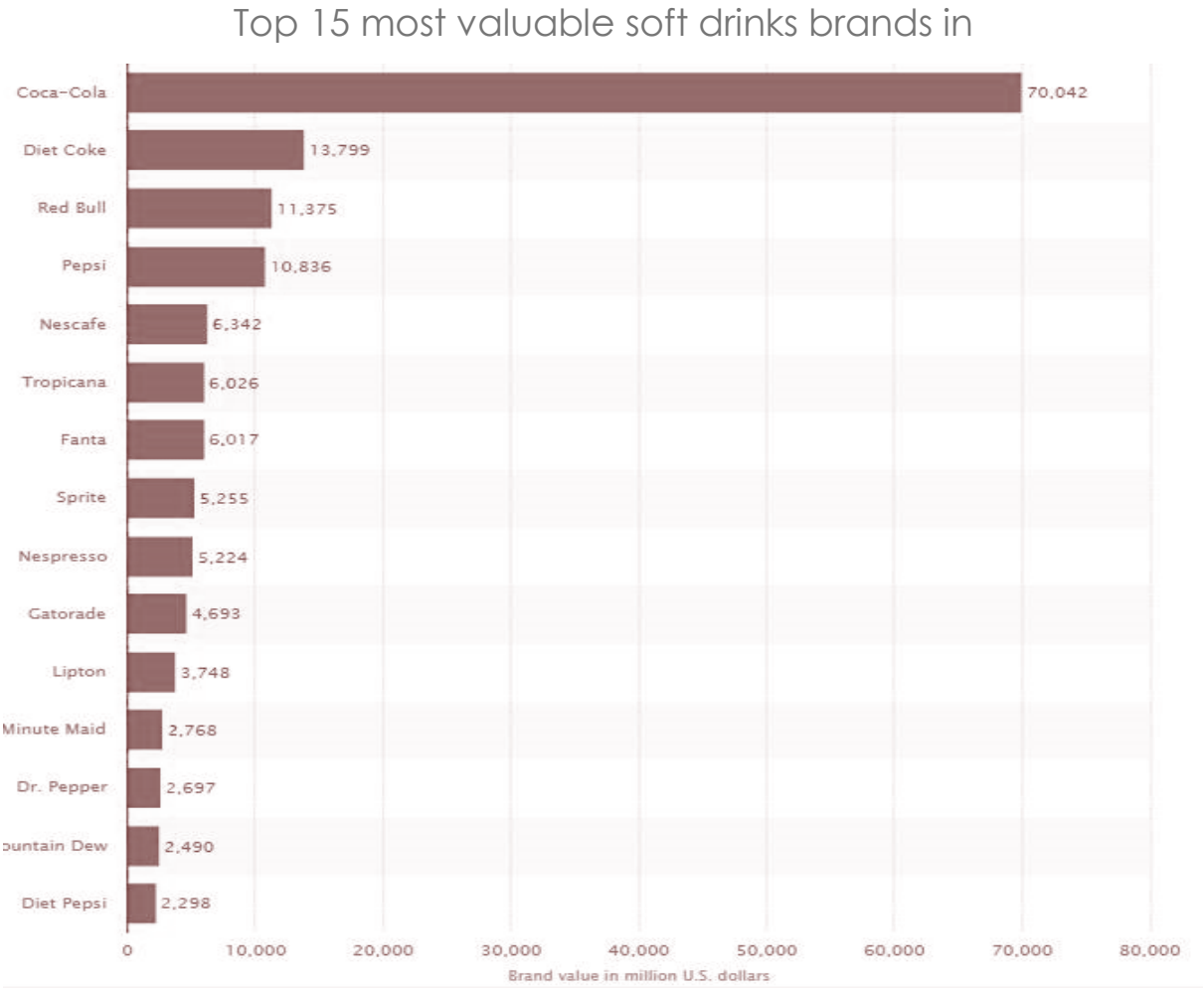
Source: The Coca-Cola Company 10-K annual reports

Appendix B.4 – Third Quarter 2014 (light orange) and 2015 (dark orange) results



Source: The Coca-Cola Company 10-Q quarterly reports

Appendix B.5.



Source: Statista

Appendices C

Appendix C.1 – IMF's Historical/Projected Inflation

	Average									Projections		
	1997–2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2020
GDP Deflators												
Advanced Economies	**1.7**	**2.2**	**1.9**	**0.8**	**1.0**	**1.3**	**1.2**	**1.2**	**1.3**	**0.9**	**1.2**	**1.7**
United States	2.1	2.7	2.0	0.8	1.2	2.1	1.8	1.5	1.5	0.9	1.5	2.0
Euro Area[1]	1.7	2.4	2.0	1.0	0.7	1.1	1.3	1.3	0.9	1.0	0.9	1.5
Japan	–1.0	–0.9	–1.3	–0.5	–2.2	–1.9	–0.9	–0.5	1.7	1.6	0.5	0.8
Other Advanced Economies[2]	2.0	2.8	3.0	1.0	2.4	2.0	1.3	1.3	1.4	0.5	1.4	2.0
Consumer Prices												
Advanced Economies	**2.0**	**2.2**	**3.4**	**0.1**	**1.5**	**2.7**	**2.0**	**1.4**	**1.4**	**0.4**	**1.4**	**2.0**
United States	2.5	2.9	3.8	–0.3	1.6	3.1	2.1	1.5	1.6	0.1	1.5	2.3
Euro Area[1,3]	2.0	2.2	3.3	0.3	1.6	2.7	2.5	1.3	0.4	0.1	1.0	1.7
Japan	–0.1	0.1	1.4	–1.3	–0.7	–0.3	0.0	0.4	2.7	1.0	0.9	1.5
Other Advanced Economies[2]	1.9	2.1	3.9	1.4	2.4	3.4	2.1	1.7	1.5	0.8	1.8	2.3
Emerging Market and Developing Economies	**8.8**	**6.6**	**9.4**	**5.3**	**5.9**	**7.3**	**6.1**	**5.9**	**5.1**	**5.4**	**4.8**	**4.5**
Regional Groups												
Commonwealth of Independent States[4]	20.5	9.7	15.5	11.1	7.1	9.8	6.2	6.4	8.1	16.8	9.4	4.9
Emerging and Developing Asia	4.2	5.4	7.6	2.8	5.2	6.5	4.7	4.8	3.5	3.0	3.1	3.7
Emerging and Developing Europe	24.2	6.0	8.0	4.8	5.6	5.4	6.0	4.3	3.8	2.7	3.7	4.0
Latin America and the Caribbean[5]	. . .	5.5	8.1	6.1	6.2	6.8	6.1	7.1	. . .	. . .	. . .	. . .
Middle East, North Africa, Afghanistan, and Pakistan	5.5	10.2	11.7	7.1	6.5	9.2	9.8	9.1	6.7	6.1	6.2	5.6
Middle East and North Africa	5.5	10.5	11.7	6.0	6.2	8.7	9.7	9.3	6.5	6.2	6.4	5.7
Sub-Saharan Africa	11.3	5.4	13.0	9.8	8.2	9.5	9.4	6.5	6.3	6.6	7.0	5.7
Memorandum												
European Union	3.4	2.4	3.7	0.9	2.0	3.1	2.6	1.5	0.5	0.0	1.2	1.9
Analytical Groups												
By Source of Export Earnings												
Fuel	13.1	10.0	13.4	8.3	7.3	9.1	8.4	9.1	8.2	11.7	9.3	6.9
Nonfuel	7.5	5.6	8.2	4.4	5.5	6.8	5.5	5.1	4.3	3.8	3.7	3.9
Of Which, Primary Products[5]	. . .	7.6	10.7	6.7	7.0	8.1	8.6	8.4	. . .	. . .	. . .	. . .
By External Financing Source												
Net Debtor Economies	9.6	5.8	9.3	6.8	6.4	7.4	6.8	6.3	5.6	5.4	5.0	4.5
Net Debtor Economies by Debt-Servicing Experience												
Economies with Arrears and/or Rescheduling during 2009–13	9.8	9.1	11.8	13.2	10.3	10.6	9.8	8.5	10.4	8.9	8.3	5.3
Memorandum												
Median Inflation Rate												
Advanced Economies	2.1	2.2	4.0	0.8	1.8	3.3	2.6	1.3	0.7	0.2	1.5	2.0
Emerging Market and Developing Economies	5.1	6.1	10.2	4.1	4.3	5.5	4.9	4.0	3.2	3.0	3.4	3.7

Source: IMF's World Economic Outlook, *Adjusting to Lower Commodity Prices,* October 2015

Appendix C.2 – IMF's Historical/Projected GDP

Table A15. Summary of World Medium-Term Baseline Scenario

	Averages				Projections		Averages	
	1997–2006	2007–16	2013	2014	2015	2016	2013–16	2017–20
			Annual Percent Change					
World Real GDP	**4.0**	**3.5**	**3.3**	**3.4**	**3.1**	**3.6**	**3.4**	**3.9**
Advanced Economies	2.8	1.3	1.1	1.8	2.0	2.2	1.8	2.1
Emerging Market and Developing Economies	5.4	5.5	5.0	4.6	4.0	4.5	4.5	5.1
Memorandum								
Potential Output								
Major Advanced Economies	2.3	1.3	1.2	1.3	1.5	1.6	1.4	1.7
World Trade, Volume[1]	**6.8**	**3.5**	**3.3**	**3.3**	**3.2**	**4.1**	**3.5**	**4.6**
Imports								
Advanced Economies	6.6	2.4	2.0	3.4	4.0	4.2	3.4	4.5
Emerging Market and Developing Economies	8.3	6.0	5.2	3.6	1.3	4.4	3.6	5.2
Exports								
Advanced Economies	6.2	2.9	2.9	3.4	3.1	3.4	3.2	4.1
Emerging Market and Developing Economies	8.1	4.6	4.4	2.9	3.9	4.8	4.0	5.2
Terms of Trade								
Advanced Economies	–0.2	0.0	0.8	0.4	1.6	0.1	0.7	0.1
Emerging Market and Developing Economies	1.9	0.1	–0.3	–0.5	–4.7	–1.0	–1.6	–0.7
World Prices in U.S. Dollars								
Manufactures	0.3	0.8	–1.1	–0.6	–4.1	–0.7	–1.6	0.8
Oil	12.2	–2.4	–0.9	–7.5	–46.4	–2.4	–16.8	5.7
Nonfuel Primary Commodities	2.2	0.4	–1.2	–4.0	–16.9	–5.1	–7.0	–0.2
Consumer Prices								
Advanced Economies	2.0	1.6	1.4	1.4	0.3	1.2	1.1	1.9
Emerging Market and Developing Economies	8.7	6.2	5.8	5.1	5.6	5.1	5.4	4.6
Interest Rates			*Percent*					
Real Six-Month LIBOR[2]	2.0	–0.2	–1.1	–1.1	–0.6	–0.3	–0.8	1.2
World Real Long-Term Interest Rate[3]	2.5	1.2	0.8	0.5	1.5	1.2	1.0	1.4
Current Account Balances			*Percent of GDP*					
Advanced Economies	–0.6	–0.1	0.4	0.4	0.5	0.3	0.4	0.1
Emerging Market and Developing Economies	1.5	1.4	0.6	0.5	–0.1	–0.2	0.2	–0.5
Total External Debt								
Emerging Market and Developing Economies	33.8	26.0	25.9	26.0	27.1	27.5	26.6	26.3
Debt Service								
Emerging Market and Developing Economies	9.3	8.6	8.8	9.2	9.7	9.0	9.2	9.0

[1]Data refer to trade in goods and services.
[2]London interbank offered rate on U.S. dollar deposits minus percent change in U.S. GDP deflator.
[3]GDP-weighted average of 10-year (or nearest-maturity) government bond rates for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

Source: IMF's World Economic Outlook, *Adjusting to Lower Commodity Prices,* October 2015

Appendix C.3 – Exchange Rate Impact

Exchange Rate Impact on Operating Income	**2010**	**2011**	**2012**	**2013**	**2014**
Consolidated	3%	4%	-5%	-4%	-6%
Eurasia & Africa	7%	-1%	-11%	-8%	-12%
Europe	-1%	2%	-4%	0%	2%
Latin America	3%	4%	-10%	-10%	-12%
North America	0%	1%	0%	0%	0%
Asia Pacific	8%	7%	2%	-2%	-8%
Bottling Investments	9%	7%	-19%	-8%	-4%
Corporate	0%	1%	-1%	2%	0%

Source: The Coca-Cola Company 10-K annual reports

Appendix C.4. – Forecasted Revenues and Respective Growth rates per Segment

Projected Revenues (In $ Million)					*CAGR 14-20*	*0,45%*						
	F2015	*g*	F2016	*g*	F2017	*g*	F2018	*g*	F2019	*g*	F2020	*g*
Net Operating Revenues	**44 985**	**-2,2%**	**44 372**	**-1,4%**	**44 811**	**1,0%**	**45 413**	**1,3%**	**46 260**	**1,9%**	**47 454**	**2,6%**
Eurasia & Africa	2 489	-8,8%	2 396	-3,7%	2 444	2,0%	2 542	4,0%	2 694	6,0%	2 910	8,0%
Europe	5 146	-7,0%	5 014	-2,6%	4 963	-1,0%	4 864	-2,0%	4 718	-3,0%	4 530	-4,0%
Latin America	4 123	-11,5%	3 870	-6,1%	3 947	2,0%	4 105	4,0%	4 351	6,0%	4 700	8,0%
North America	22 075	2,8%	22 460	1,7%	22 748	1,3%	23 087	1,5%	23 463	1,6%	23 826	1,5%
Asia Pacific	5 476	-4,7%	5 267	-3,8%	5 478	4,0%	5 916	8,0%	6 626	12,0%	7 687	16,0%
Bottling Investments	6 874	-2,3%	6 516	-5,2%	6 320	-3,0%	5 941	-6,0%	5 406	-9,0%	4 758	-12,0%
Eliminations	(1 345)	1,5%	(1 302)	-3,2%	(1 246)	-4,3%	(1 202)	-3,5%	(1 165)	-3,1%	(1 125)	-3,4%
Corporate	146	7,2%	151	3,5%	156	3,0%	159	2,5%	165	3,3%	170	3,1%

Appendices D

Appendix D.1. – Sensitivity Analysis with Different Scenarios

	Pessimist Scenario	Base Scenario	Optimistic Scenario
Revenues YoY (2015-2020)	-2.7%; -1.9%; 0.5%; 0.8%; 1.4%; 2.1%	-2.2%; -1.4%; 1.0%; 1.3%; 1.9%; 2.6%	-1.8%; -0.9%; 1.5%; 1.8%; 2.4%; 3.1%
COGS YoY (2015-2020)	-2.6%; -1.1%; 1.2%; 1.6%; 2.1%; 2.8%	-3.1%; -1.6%; 0.7%; 1.1%; 1.6%; 2.3%	-3.6%; -2.1%; 0.2%; 0.6%; 1.1%; 1.8%
CAPEX (% of EBIT)	24.1%; 23.1%; 22.0%; 21.0%; 19.9%; 18.9%	23.1%; 22.1%; 21.0%; 20.0%; 18.9%; 17.9%	22.1%; 21.1%; 20.0%; 19.0%; 17.9%; 16.9%
Enterprise Value	186 859	225 621	264 399
Equity Value	176 331	215 093	253 872
Target Share Price	40.55	49.46	58.37
Target Share Price Variation (%)	-18.02%	-	18.03%
Probability	50%	25%	25%
Equity Value	**205 407**		
Target Share Price	**47.23**		

Appendix D.2. – Income Statement Forecast, Standardised in $ Million

Period End Date	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Revenue	**44 985**	**44 372**	**44 811**	**45 413**	**46 260**	**47 454**
Cost of Revenue, Total	17 334	17 053	17 177	17 363	17 640	18 048
Gross Profit	**27 651**	**27 318**	**27 634**	**28 050**	**28 620**	**29 406**
Selling/General/Admin. Exp., Total	16 707	16 435	16 553	16 730	16 996	17 387
Selling/General/Admin. Exp.	13 135	12 921	13 014	13 153	13 362	13 670
Labour & Related Expense	288	284	286	289	293	300
Advertising Expense	3 284	3 230	3 253	3 288	3 340	3 417
Research & Development	–	–	–	–	–	–
Depreciation/Amortization	–	–	–	–	–	–
Interest Expense, Net - Operating	–	–	–	–	–	–
Interest/Inv. Income - Operating	13	13	13	13	14	14
Interest Exp.(Inc.) - Net Operating	–	–	–	–	–	–
Interest Exp.(Inc.),Net - Op., Total	13	13	13	13	14	14
Unusual Expense (Income)	351	346	349	354	361	370
Restructuring Charge	787	776	784	794	809	830
Impairment-Assets Held for Use	250	246	249	252	257	263
Other Unusual Expense (Income)	(686)	(676)	(683)	(692)	(705)	(723)
Other Operating Expenses, Total	212	209	211	214	218	223
Total Operating Expense	**34 617**	**34 056**	**34 304**	**34 674**	**35 228**	**36 042**
Operating Income	**10 368**	**10 315**	**10 507**	**10 739**	**11 032**	**11 412**
Interest Expense, Net Non-Operating	(521)	(521)	(521)	(521)	(521)	(521)
Interest Expense - Non-Operating	(522)	(522)	(522)	(522)	(522)	(522)
Interest Capitalized - Non-Op.	1	1	1	1	1	1
Interest/Inv. Income - Non-Operating	1 347	1 347	1 347	1 347	1 347	1 347
Interest Income - Non-Operating	521	521	521	521	521	521
Investment Inc. - Non-Operating	826	826	826	826	826	826
Interest Inc. (Exp.), Net Non-Op.	–	–	–	–	–	–
Int. Inc.(Exp.),Net-Non-Op., Total	869	869	869	869	869	869
Gain (Loss) on Sale of Assets	–	–	–	–	–	–
Other, Net	(340)	(340)	(340)	(340)	(340)	(340)
Net Income Before Taxes	**11 895**	**11 843**	**12 035**	**12 267**	**12 560**	**12 939**
Provision for Income Taxes	2 855	2 842	2 888	2 944	3 014	3 105
Net Income After Taxes	**9 041**	**9 001**	**9 146**	**9 323**	**9 545**	**9 834**
Minority Interest	(52)	(52)	(52)	(52)	(52)	(52)
Equity In Affiliates	–	–	–	–	–	–
U.S. GAAP Adjustment	–	–	–	–	–	–
Net Income Before Extra. Items	**8 989**	**8 949**	**9 095**	**9 271**	**9 493**	**9 782**
Accounting Change	–	–	–	–	–	–
Discontinued Operations	–	–	–	–	–	–
Extraordinary Item	–	–	–	–	–	–
Tax on Extraordinary Items	–	–	–	–	–	–
Total Extraordinary Items	**–**	**–**	**–**	**–**	**–**	**–**
Net Income	**8 989**	**8 949**	**9 095**	**9 271**	**9 493**	**9 782**

Appendix D.3. – Balance Sheet Forecast, Standardised in $ Million

Period End Date	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Assets ($ Millions)						
Cash and ST Investments	19 643	19 049	19 269	17 544	18 075	15 702
Cash & Equivalents	11 483	11 136	11 264	10 256	10 566	9 179
Short Term Investments	8 160	7 914	8 005	7 288	7 509	6 523
Accounts Rec. - Trade, Net	4 787	4 754	4 807	4 860	4 937	5 034
Acc. Rec. - Trade, Gross	4 904	4 871	4 925	4 980	5 058	5 158
Prov. Doubtful Accounts	(118)	(117)	(118)	(119)	(121)	(124)
Total Receivables, Net	4 787	4 754	4 807	4 860	4 937	5 034
Total Inventory	3 091	3 030	3 023	3 015	3 021	3 038
Inv. - Finished Goods	1 160	1 137	1 134	1 131	1 133	1 140
Inv. - Raw Materials	1 645	1 612	1 608	1 604	1 607	1 616
Inv. - Other	287	281	280	280	280	282
Prepaid Expenses	2 586	2 544	2 563	2 590	2 632	2 693
Other Current Assets, Total	1 533	1 533	1 533	1 533	1 533	1 533
Def. Inc. Tax – Cur. Asset	227	227	227	227	227	227
Disc. Op. – Cur. Asset	915	915	915	915	915	915
Other Current Assets	391	391	391	391	391	391
Total Current Assets	**31 640**	**30 910**	**31 195**	**29 544**	**30 197**	**28 000**
Prop./Plant/Eq., Total - Gross	23 284	22 079	21 402	20 781	20 243	19 816
Buildings - Gross	5 216	4 946	4 794	4 655	4 535	4 439
Land/Improv. - Gross	1 029	976	946	918	895	876
Machinery/Equip. - Gross	16 041	15 211	14 744	14 317	13 946	13 652
Construction Prog. - Gross	998	947	918	891	868	850
Prop./Plant/Eq., Total - Net	14 517	13 766	13 343	12 956	12 621	12 355
Acc. Depr., Total	(8 767)	(8 313)	(8 058)	(7 825)	(7 622)	(7 461)
Goodwill, Net	12 110	12 110	12 110	12 110	12 110	12 110
Intangibles, Net	15 447	15 237	15 387	15 594	15 885	16 295
Intangibles - Gross	1 616	1 594	1 610	1 631	1 662	1 704
Acc. Int. Amortization	532	524	530	537	547	561
Long Term Investments	10 112	10 112	10 112	10 112	10 112	10 112
LT Inv. - Affiliate Comp.	8 749	8 749	8 749	8 749	8 749	8 749
LT Investments - Other	1 363	1 363	1 363	1 363	1 363	1 363
Note Receivable - LT	–	–	–	–	–	–
Other LT Assets, Total	3 851	3 851	3 851	3 851	3 851	3 851
Def. Inc. Tax - LT Asset	325	325	325	325	325	325
Disc. Op. - LT Asset	1 396	1 396	1 396	1 396	1 396	1 396
Other Long Term Assets	2 130	2 130	2 130	2 130	2 130	2 130
Total Long Term Assets	**56 037**	**55 075**	**54 804**	**54 624**	**54 579**	**54 723**
Total Assets	**87 677**	**85 985**	**85 998**	**84 167**	**84 776**	**82 722**

Period End Date	*F2015*	*F2016*	*F2017*	*F2018*	*F2019*	*F2020*
Liabilities ($ Millions)						
Accounts Payable	2 034	1 994	1 989	1 984	1 988	1 999
Payable/Accrued	–	–	–	–	–	–
Accrued Expenses	7 094	6 980	7 030	7 106	7 220	7 387
Short Term Debt	14 660	14 660	14 660	14 660	14 660	14 660
Cur. Port. LT D./Cap. Leases	3 322	3 161	3 033	2 935	2 864	2 587
Other Cur. liabilities, Total	764	764	764	764	764	764
Income Taxes Payable	363	363	363	363	363	363
Def. Inc. Tax – Cur. Liab.	230	230	230	230	230	230
Disc. Op. – Cur. Liab.	153	153	153	153	153	153
Other Current Liabilities	19	19	19	19	19	19
Total Current Liabilities	**27 875**	**27 558**	**27 477**	**27 450**	**27 496**	**27 397**
Total Long Term Debt	15 511	12 822	11 459	8 151	7 147	3 541
Total Debt	**33 493**	**30 643**	**29 152**	**25 746**	**24 671**	**20 788**
Deferred Income Tax	5 200	5 129	5 180	5 250	5 348	5 486
Minority Interest	297	297	297	297	297	297
Other Liabilities, Total	4 714	4 714	4 714	4 714	4 714	4 714
Total Long Term Liabilities	**25 722**	**22 962**	**21 650**	**18 412**	**17 506**	**14 038**
Total Liabilities	**53 597**	**50 521**	**49 127**	**45 861**	**45 001**	**41 435**
Shareholders Equity ($ Millions)						
Redeemable Pref. Stock, T.	–	–	–	–	–	–
Pref. Stock - Non Red., Net	–	–	–	–	–	–
Common Stock	1 760	1 760	1 760	1 760	1 760	1 760
Additional Paid-In Capital	13 154	13 154	13 154	13 154	13 154	13 154
Retained Earn. (Acc. Deficit)	67 004	70 583	74 221	77 929	81 727	85 639
Treasury Stock - Common	(41 089)	(43 284)	(45 514)	(47 789)	(50 117)	(52 517)
ESOP Debt Guarantee	–	–	–	–	–	–
Unrealized Gain (Loss)	–	–	–	–	–	–
Other Equity	(6 749)	(6 749)	(6 749)	(6 749)	(6 749)	(6 749)
Total Equity	**34 080**	**35 464**	**36 871**	**38 306**	**39 774**	**41 288**
Total Liabilities & Shareholders' Equity	**87 677**	**85 985**	**85 998**	**84 167**	**84 776**	**82 722**

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