CATÓLICA LISBON
SCHOOL OF BUSINESS & ECONOMICS

MERGERS AND ACQUISITIONS CASE STUDY

THE CASE OF PEPSICO AND WHITEWAVE

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Abstract

This work is an analysis of the potential acquisition of WhiteWave by PepsiCo, two US publicly-traded players of the food and beverage industry. WhiteWave is a market leader in the emergent segments of the industry, including plant-based beverages and organic dairy. The firm presented a solid growth performance over the last periods and this trend is expected to continue as consumers are shifting their preferences from unhealthy food to protein, fiber, whole grains and organic products.

A combined firm would benefit from the established presence of WhiteWave in the growing segments of the industry and the scale and expertise of PepsiCo. Together, they would combine the target's skills in developing products with high consumer loyalty and growth potential, with the acquirer's production's capacity, scale and financial resources.

We began by analyzing both firms separately using three valuation methods: the DCF-WACC, the APV and the market multiples approach. Using these three methods, we concluded that WhiteWave has an enterprise value between $8,601 and $9,634 million and PepsiCo one of $178,833 to $196,778 million.

We calculated the value of the synergies by analyzing the impact of the acquisition on the target's costs and growth opportunities and used its cost of capital as the discount rate. The total value of synergies is between $873 million and $1,182 million, of which approximately 75% is the result of cost savings.

We recommend PepsiCo to acquire WhiteWave for a share price of $46,61 in cash, representing a 12% premium over the target's market value[1].

[1] 05/11/15

Sumário Executivo

Este trabalho consiste numa análise da potencial aquisição da WhiteWave pela PepsiCo, empresas públicas norte-americanas, que operam na indústria alimentar. A WhiteWave é líder de mercado em segmentos emergentes desta indústria, nomeadamente, bebidas à base de plantas e lacticínios orgânicos. A empresa tem vindo a apresentar um crescimento sólido e esta tendência aparenta continuar visto que os consumidores estão a trocar as suas preferências por alimentos calóricos e artificiais para proteínas, fibra e produtos orgânicos.

Uma combinação destas empresas iria beneficiar da forte presença da WhiteWave nestes segmentos industriais em crescimento e da dimensão e experiência da PepsiCo. Juntas combinarão as competências do *target* em desenvolver marcas e produtos com grande potencial de crescimento com as capacidades financeiras, dimensão e capacidade de produção do comprador.

Foi feita uma análise das duas empresas em separado, usando os métodos de avaliação DCF-WACC, APV e múltiplos. Concluímos que a WhiteWave tem um valor entre $8,601e $9,634 milhões e a PepsiCo entre $178,833 e $196,778 milhões.

No cálculo das sinergias, avaliámos os efeitos da aquisição na estrutura de custos e potencial de crescimento do *target* e utilizámos o seu custo de capital como taxa de desconto. O valor total das sinergias é entre $873 e $1,182 milhões, sendo que cerca de 75% deste valor resulta de redução de custos.

A nossa recomendação é de que a PepsiCo adquira a WhiteWave por um valor de $46.61 por ação, em dinheiro, representando um prémio de 12% face ao valor de mercado do *target*[2].

[2] 05/11/15

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Introduction

The global food industry is highly affected by changes on consumers' preferences, which may be due to such factors as taste and lifestyle. Currently, consumers are more informed about what they buy and are increasingly interested in natural and healthy ingredients. Consequently, sales of fat and sugary food such as carbonated drinks are expected to grow at less than 1%. Another trend affecting the food industry is the increasing number of lactose intolerant individuals, which are recommended to avoid dairy products and to opt for alternatives, such as plant-based food and beverages. Therefore, there are two major opportunities among the food industry: the organic food segment and the plant-based food and beverages segment.

In this work we will analyze the potential acquisition of WhiteWave by PepsiCo. With a market capitalization of $146,588 million (05/11/15), PepsiCo, mostly known for its beverages and snacks, is facing a decrease in sales due to consumers' shift to more healthy food. Over the past years, the firm has been focusing on beverages with less sugar and more natural ingredients to respond to consumers' preferences. WhiteWave is a US based producer of dairy products and plant-based foods and beverages, holding, among others, the brands Alpro® and Provamel®. The firm has a market capitalization of $7,259 million (05/11/15) and its volume of sales has increased by an average of 19.3% annually since 2013.

The first section of this work will be the literature review, consisting of an overview of the relevant literature regarding the motives for mergers and acquisitions, the different types of synergies and the valuation techniques used to analyze the target company.

Secondly, we will present an overview of the business and financial profile of WhiteWave and PepsiCo as well as a review of the food and beverage industry, with a particular focus on the current trends and business opportunities.

The third section will include a separate valuation of both firms, using the DCF-WACC, the APV and the market multiples methods.

In the fourth section, we will analyze the post-acquisition combined firm and calculate the value of the cost and growth synergies and, finally, the value of the total synergies.

Lastly, in the fifth and final section we will analyze the transaction structure, price and method of payment and proceed to make our final recommendation in accordance with the previous findings.

1. Literature Review

Mergers and acquisitions have drawn the attention of academicians since the mid-1950s (Chatterjee, 1986). Several questions have been raised and studied in the existing literature, such as the different motivations for mergers, its impact on the returns of the bidding shareholders, the valuation of the target firm and the impact of M&A in the overall economy.

In this section we will discuss the relevant literature regarding the motives for mergers and acquisitions, analyze the value creation of mergers for both the acquiring and target shareholders', summarize the different types of synergies created by mergers, and, finally, present an overview of the valuation techniques used to analyze the target company, focusing on the best practices to estimate the cost of capital.

1.1. Motives for Mergers and Acquisitions

Given the magnitude[3] of the M&A industry and its wide universe of bidders and targets, the motives behind takeover deals are broad and diversified. A classic measure to evaluate the success of a merger is to analyze whether it increases the combined value of the target and acquiring firms. A successful tender offer increases the value of the target and acquiring firms by an average of 7.4% (Bradley, Desai, & Kim, 1988).

Using this approach, synergy appears to be the primary motive for takeovers. Mukherjee, Kiymaz, & Baker (2004), surveyed chief financial officers of US firms engaged in M&A deals during 1990-2001 who identified operating synergies as the dominant motivation. Similarly, Berkovitch & Narayanan (1993) analyzed 330 tender offers, and 76.4% presented positive total gains, indicating that synergy was the dominant reason for the takeovers. Moreover, they suggested two additional motives for takeovers: the agency motive and hubris. The former refers to takeovers that occur due to the acquiring management's self-interest in increasing its welfare at the expense of the acquiring shareholders. This motive is more frequent in conglomerate mergers as they diversify the business risk, and seems to be the major reason for the existence of value-reducing acquisitions. The hubris hypothesis suggests that management's valuation of the target is incorrect and that mergers happen even when there is no synergy.

Trautwein (1990) introduces seven theories of merger motives for takeovers and categorizes them according to their plausibility: valuation, empire-building, and process theories have the highest degree of plausibility; followed by the efficiency and the monopoly theories, for which

[3] The total M&A deal value in the first three quarters of 2014 reached almost $1 trillion (KPMG, 2015)

the existent evidence is mainly unfavorable; and lastly, the raider and the disturbance theories which are described as *"rather implausible, as well as unsupported by evidence"*.

Valuation theory suggests mergers are executed by managers who have better information to value the target than the market. The empire building theory, as the agency motive described above, suggests mergers are driven by the manager's self-interest. In line with this theory, Maquieira, L. Megginson, & Nail (1998) find insignificant net gains for security holders in conglomerate mergers, suggesting that managers of acquiring firms in conglomerate mergers are not acting in their shareholder's best interest. Process theory argues that mergers and other strategic decisions are seen *"not as comprehensively rational choices but as outcomes of processes governed by one or more of the following influences"* (Trautwein, 1990).

Efficiency theory refers to a planned merge with the primary purpose of achieving synergies. The efficiency theory of mergers dominates the field of corporate strategy as well as the research on mergers' motives. This theory is consistent with several findings, including those of Berkovitch & Narayanan (1993) that identify synergy as the key reason for takeovers. From a monopoly theory perspective, mergers are a way to achieve market power. Chatterjee (1986) refers to the advantages resulting from the increased market power as collusive synergies and points out that they are *"created artificially at the expense of the consumer"*. Moreover, Devos, Kadapakkam, & Krishnamurthy (2009) argue that increased market power is not economically beneficial as it generates stockholders' gains at the expense of other stakeholders such as customers and suppliers.

The raider theory refers to mergers that are executed to transfer wealth from the target's shareholders, which Trautwein (1990) describes as being *"illogic"*. Also, this theory is inconsistent with evidences provided in much research regarding mergers' wealth creation, including Maquieira, L. Megginson, & Nail (1998) which document that *"target firm shareholders' always experience net wealth gains"* either in conglomerate or non-conglomerate mergers. Regarding the disturbance theory, *"economic disturbances generate discrepancies in valuation of the type needed to produce mergers"* (Gort, 1969). These disturbances result in two things, first, they alter individual expectations and second, they increase the variance of valuations because past information becomes less accurate to predict the future.

M&A deals can also be motivated by changes in economic conditions and industry shocks including, among others, the availability of credit in favorable terms, opportunities in emerging markets, consumers' preferences and government regulations. According to Eccles (1999), an M&A is executed to create a stronger competitive position in the market place by creating a

"better platform for growth". Bradley, Desai, & Kim (1988) identified exogenous changes in consumers' preferences and supply or technological innovations as the primary economic changes motivating tender offers. Mulherin & Boone (2000) studied *"whether corporate restructuring can best be typified as an efficient response to economic shocks",* and concluded that firms efficiently respond to economic changes by adapting their size through either a merge or a divesture.

The existing literature suggests that M&A transactions create value at the macroeconomic level. Sirower & Sahni (2006) analyze the changes in the market capitalization of both buyers and sellers and report an aggregate value creation of 1% at the announcement of an M&A deal. For Mulherin & Boone (2000), the value creation is 3.5% for acquisitions during the 1990s. They also argument that wealth creation, both in acquisitions and divestures, is directly related to the relative size of the deal. Similarly, results of Chatterjee (1986) indicate that when a large firm merges with a smaller firm, the wealth gain of the target is proportional to the relative size of the bidder to the target and related diversification strategies create more value than unrelated strategies.

Although mergers create value in aggregate terms, the gains for the shareholders of the two firms diverge. Eccles (1999) points out that acquisitions don't create value for the acquiring shareholders. Similarly, Sirower & Sahni (2006) report negative returns for the acquiring firm one-week after the deal announcement. Shareholders of the target firm appear to be the main beneficiaries of M&A transactions while those on the acquiring side can report negative returns. Researchers attribute this to investors' skepticism regarding the value of the combined firms and whether synergies will outweigh the premium paid. Government regulations may also play an important role in the repartition of the wealth created in M&A deals. Bradley, Desai, & Kim (1988) analyzed successful tender offers between 1963 and 1984 and concluded that target shareholders captured the majority of the gains from tender offers. They also outlined that the Williams Amendment in 1968 and other government regulations are a zero sum game, which transfer gains from the acquiring shareholders to the target.

1.2. Synergies Overview

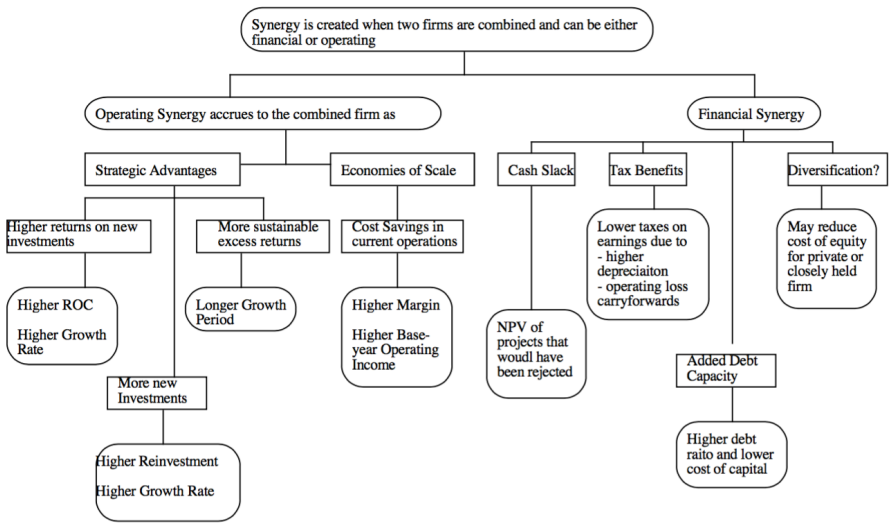
Although there are several motives for M&A covered by the existing literature, there is a dominant and more recurrent one: synergies. In fact, most of the literature support the importance of synergy as a primary merger motive (Mukherjee, Kiymaz, & Baker, 2004), (Berkovitch & Narayanan, 1993) and (Bradley, Desai, & Kim, 1988).

The word *synergy* is derived from the Greek word *sunergos,* which means, *"working together".* Damodaran (2005) describes synergies as *"the additional value that is generated by combining two firms, creating opportunities that would not been available to these firms operating independently"* and as the *"magic ingredient that allows acquirers to pay billions of dollars in premiums in acquisitions"*. On average, these premiums paid for target companies average 30% above market value.

Damodaran (2005) and Devos, Kadapakkam, & Krishnamurthy (2009) outline two types of synergies resulting from an M&A: operating synergies and financial synergies. Operating synergies have an impact on the operations of the combined firm, which can be translated into economies of scale, stronger market power or higher growth potential. Financial synergies come from an increase in debt tax shields, diversification or higher debt capacity.

Devos, Kadapakkam, & Krishnamurthy (2009) documented an average total synergy gain of 10% of the combined equity value of the merging firms. Operating synergies are the most relevant type of synergies representing 8.38% of the equity value of the merged firm. Similarly, Mukherjee, Kiymaz, & Baker (2004) report that 89.9% of the interviewed CFOs appointed operating economies as the main source of synergies. Figure 1 summarizes the sources of synergies according to Damodaran (2005):

Figure 1-Synergies and Value



Goold & Andrew (1998) suggested six types of synergies: shared know-how, coordinated strategies, shared tangible resources, vertical integration, pooled negotiating power and combined business creation. The latter is described as *"the creation of new businesses as a result of the combining know-how from different units"*. This type of synergy is particularly relevant given the increased concern for growth amongst firms worldwide. Pooled negotiation

power occurs when the combined firm has more leverage over suppliers and is able to either reduce costs or improve the quality of the purchases. For instance, when the target is significantly smaller than the acquiring, by combining both firms' purchases the target's units can gain greater leverage over suppliers. This effect is an operating synergy because it is a consequence of economies of scale (Devos, Kadapakkam, & Krishnamurthy, 2009).

Eccles (1999) documents five types of synergies: cost savings, revenue enhancement, process improvements, financial engineering and tax benefits. In what concerns the value of these synergies, revenues' enhancements are extremely difficult to predict because they depend on external factors. Given this volatility, some firms don't include them in the synergy value calculations[4]. However, they can be able to create significant value, namely when the target has a complementary product and is able to take advantage of the buyer's extensive distribution channels, which can increase its sales both in current and new markets. Cost savings are easier to estimate and the level of accuracy and certainty is higher. They arise from eliminating duplication, such as jobs or facilities, and from increased economies of scale. Process improvements occur when there is a transfer of the best practices of each firm and core competencies, resulting in both reduced costs and increased revenues.

It is important to analyze the link between the type of M&A and the resulting type of synergies, for instance, costs savings are particularly large when the transaction is between two firms operating in the same industry in the same country (Eccles, 1999). Sirower & Sahni (2006) introduced a matrix to evaluate deals in terms of changes in capabilities and market access. According to the place of the deal in the matrix, it can yield revenue or cost synergies. They state that deals which have overlap but improve capabilities or market access can lead to both revenue and cost synergies, whereas deals that bring non-overlapping capabilities and market access, will result in revenue increases.

Sirower & Sahni (2006) introduced the *synergy matching principle* to outline that synergies also have a cost. As they explained, *"synergies don't come from free"* therefore *"it is important to account for the incremental capital investments or costs that will be required to realize any synergies"*.

Although synergies have been proven to create wealth, if they rely on unrealistic assumptions and managers' euphoria, they can lead to overpriced premiums. There are four bias that can

[4] Matthew Slatter, the CEO of Bank of Melbourne, says, *"We model this (revenue enhancement), but never factor it into the price."* (Eccles 1999)

affect managers while analyzing a possible merge: the *synergy bias* – overestimating the benefits and underestimating the costs of synergy; the *parenting bias* – becoming too involved in the valuation and deal; the *skill bias* – believing they have the skills to intervene and finally, the *upside bias* – focusing too much on positive knock-on effects (unforeseen consequences) while overlooking the downsides (Goold & Andrew, 1998).

1.3. Valuation Techniques

Although several valuation techniques are covered by the existing literature, two methods stand out: The Discounted Cash Flows (DCF) and the market multiples approach.

The DCF analysis emerged as the best practice for valuing corporate assets in the 1970s. This is the most used method to value either a public or a private target firm (49.3%) and a considerable number of CFOs use it along with the market multiples approach (33.3%) (Mukherjee, Kiymaz, & Baker, 2004). The DCF approach is also the most used investment-evaluation technique (Robert F., M. Eads, S. Harris, & C. Higgins, 1998) and it performs at least as well as the multiples approach (Kaplan & Ruback, 1995). Mohan, Ainina, Kaufman, & Winger (1991) argued that the DCF represents the maximum price to be paid for an acquisition.

Regarding the comparables approach, several ratios can be used to calculate the target's value, which can be based either on recent similar transactions or in industry peers' market values. Mohan, Ainina, Kaufman, & Winger (1991) find that managers commonly use the P/E ratio[5].

In addition to the DCF and market multiples analysis referred above, Sirower & Sahni (2006) suggest a "*three-step risk management approach*" as a complement to these traditional valuation techniques. The goal is to control the potential overvaluing of synergies. The first step consists of combining all revenues and cost synergies that would be required to pay the premium; the second step is to define boundaries of the likely revenues and costs synergies based on previous transactions, and finally; the third step is an analysis of the sources of those synergies.

In what concerns the methods used in the investment decision-making process, the majority of firms rely on the net present value (81%) and on the internal rate of return (79.8%) (Emery A. & J. Gitman, 1995).

[5] Where company value is the product of either current or projected earnings multiplied by a *P/E* ratio

1.3.1. The Discounted Cash Flow Approach

Using the DCF method requires an estimate of future cash flows and an appropriate discount rate. The analysis is extremely sensitive to the financial projections and cost of capital, therefore 63.1% of the firms perform a sensitivity analysis to account for the impact of changes on these variables (Emery A. & J. Gitman, 1995). Given the large sums of money involved with these variations, 70% of the surveyed CFOs use the results of sensitivity analysis to make their investments decisions (Mohan, Ainina, Kaufman, & Winger, 1991).

1.3.1.1. Cost of Equity

There is much controversy regarding which cost of equity should be used to value the target firm. Emery A. & J. Gitman (1995) surveyed CFOs of the Fortune 500 largest industrial companies and Forbes 200 best small companies and reported that 30% of the respondents use the Capital Asset Pricing Model (CAPM) to calculate the cost of equity (Equation 1). Different studies also identify the CAPM as the preferred model to estimate the cost of equity (Gitman & Vincent, 1982) and (Robert F., M. Eads, S. Harris, & C. Higgins, 1998). Other multi-factor asset pricing models, such as the arbitrage pricing theory, are also used, although by a small minority.

$$R_E = R_F + \beta_E (R_M - R_F) \tag{1}$$

Where R_E is the cost of equity, R_F is the risk-free rate, β_E is the levered beta and $(R_M - R_F)$ is the market risk premium.

Although there is a consensus that the CAPM is the best method to calculate the cost of equity, the criteria for the inputs used varies. Robert F., M. Eads, S. Harris, & C. Higgins (1998) documented the best practices to choose the beta, the risk-free rate and the market risk premium: Betas should be collected from published sources, preferably those using a long interval of equity returns (e.g. 5-year monthly observations); the risk-free rate should have a long-term maturity of ten or more years to *"reflect the default-free holding period returns available on long lived investments"*; and finally, for the market risk premium, which is the most controversial element of the model, most companies use a premium of 6% or lower, despite financial advice to opt for higher numbers. In 2015, most firms in the US used a premium of 5.5% (Fernandez, Ortiz, & Acin, 2015).

1.3.1.2. Cost of Debt

Damodaran (2015) identifies two methods to calculate the cost of debt for traded firms. First, if the firm has traded bonds, the long-term yield to maturity can be used as the pre-tax cost of debt. The second method is to use a risk free rate and add a default spread, which varies with the rating of the firm and its bonds (Figure 2). The spread can be obtained by calculating the interest coverage ratio of the firm (EBIT / Interest Expenses), which gives is a synthetic rating, or by using the actual ratings provided by rating agencies.

Figure 2-Default Spread

If interest coverage ratio is			
>	*≤ to*	*Rating is*	*Spread is*
8.50	100000	AAA	0.40%
6.5	8.499999	AA	0.70%
5.5	6.499999	A+	0.90%
4.25	5.499999	A	1.00%
3	4.249999	A-	1.20%
2.5	2.999999	BBB	1.75%
2.25	2.49999	BB+	2.75%
2	2.2499999	BB	3.25%
1.75	1.999999	B+	4.00%
1.5	1.749999	B	5.00%
1.25	1.499999	B-	6.00%
0.8	1.249999	CCC	7.00%
0.65	0.799999	CC	8.00%
0.2	0.649999	C	10.00%
-100000	0.199999	D	12.00%

(Damodaran, 2015)

1.3.1.3. Cost of Capital

The cost of capital is the most controversial element of the DCF method, therefore it is important to understand the best practices suggested by the existent literature. We can only use the cost of equity as the discount rate when we are using free cash flows to equity, otherwise it can lead to overvaluing the target firm (Mukherjee, Kiymaz, & Baker, 2004). Evidence provided in the studies of Robert F., M. Eads, S. Harris, & C. Higgins (1998) and Mohan, Ainina, Kaufman, & Winger (1991) suggest a lack of sophistication or inability to determine the appropriate target's cost of capital. The last study found that the majority of the respondent firms using DCF models use their own WACC as the discount rate (55%), 41% used management's judgment, while only 12% used the target firm's cost of capital.

Over the past 30 years, the standard version of DCF is the one using the WACC as the discount rate (Luehrman, 1997). More recently however, an alternative has emerged called Adjusted Present Value (APV). Unlike the WACC, APV "*unbundles components of value and analyses each one separately*" (Luehrman, 1997), providing a more accurate valuation of the financial side effects[6].

Where the two methods differ the most is regarding the future level of leverage, therefore, opting for one or the other "*depends entirely on the plan chosen to determine future debt transactions"* (Ezzell & Miles, 1983). The APV method assumes that the level of debt in absolute terms will be initially determined (at period 0) and never revised, whereas the WACC requires an adjustment of the debt value in order to maintain a constant leverage ratio in terms of realized market values. Both approaches can be used to estimate the value of the interest tax shields of a firm into perpetuity (Bradley & Jarrell, 2008).

1.3.2. WACC

The WACC is the dominant discount rate used in DCF analysis (Bierman, 1993). Best practice firms are able to calculate their WACC with an accuracy of no more than or minus 100 to 150 basis points. Although firms should only use the same WACC for investments of comparable risks, only 26% of the surveyed companies adjust the WACC to reflect the risk of different investments (Robert F., M. Eads, S. Harris, & C. Higgins, 1998). Instead, companies do recognize risk differences but they adjust the cash flows and the multiples instead of changing the discount rate.

In order to obtain a correct valuation using the WACC approach, the firm needs to maintain a constant leverage ratio in terms of realized market values (Ezzell & Miles, 1983). The same discount rate can only be used when the level of risk is identical (Robert F., M. Eads, S. Harris, & C. Higgins, 1998) and (Bradley & Jarrell, 2008) so, in order to keep the same level of risk between tax shields and cash flows, debt must remain in constant proportion of the value of the firm.

1.3.3. APV

Although the DCF is considered the best method to value operating assets, using the WACC as the discount rate might be considered "*obsolete"* and can be replaced by a more flexible

[6] i.e. the interest tax shields and the bankruptcy costs

alternative called APV (Luehrman, 1997). Using the APV and assuming a Modigliani-Miller (MM) world[7], the value of the firm could be expressed as showed in Equation (2):

$$V_L = V_U + T_C D \tag{2}$$

Where V_L is the levered market value, V_U is the unlevered market value and $T_C D$ is the interest tax shields, assuming a perpetual debt.

1.3.3.1. Discount Rate

Since we are assuming an unlevered firm, the appropriate discount rate is the unlevered cost of equity, which is simply obtained by replacing the beta on Equation (1) by the unlevered beta[8] (β_u):

$$\beta(U) = \frac{\beta(L)}{1 + \frac{D}{E} \times (1 - t)} \tag{3}$$

Where $\beta(L)$ is the levered beta, $\frac{D}{E}$ is the market level of debt to equity and t is the marginal tax rate.

As for the terminal value in the APV, it should reflect the "*earliest point after which we can regard the assets as perpetuity*" (Luehrman, 1997). The APV model assumes that all interest tax shields should be discounted using the same cost of debt, however, academics don't agree on their riskiness and therefore on which discount rate to use. A common assumption is that tax shields are equally or more unpredictable than the principal and interests payments (Luehrman, 1997).

1.3.3.2. Limitations

There are two particularly important limitations of using the APV method. Firstly, when computing the interest tax shield, we can overestimate the benefits of debt when income from stocks differs from that of bonds.

Secondly, in 1958 when Modigliani & Miller suggested that *"the market value of any firm is independent of its capital structure"*, they assumed no bankruptcy risk, however as Luehrman (1997) highlights, the possible costs of financial distress associated with high levels of debt

[7] A MM world assumes a perfect market (i.e. no agency costs, no information asymmetries, no bankruptcy costs etc.)

8 Also referred as asset beta: β_A

cannot be ignored. In fact, for very high levels of debt, the cost of bankruptcy may be even higher than the tax benefit of debt (Damodaran, 2015).

1.4. Forms of Payment

In cash transactions the buying shareholders bear all the risk, whereas in equity transactions this synergy risk is shared with selling shareholders in proportion to the percentage of the combined company that each will own (Sirower & Sahni, 2006). Travlos (1987) studied 167 acquisitions conducted during 1972-1981 and identified a connection between the form of payment and the type of transaction: mergers are mostly paid with common stock whereas tender offers are more often cash financed.

In stock offers, bidders experience negative returns at the proposal announcement date, whereas in cash deals the returns appear to be normal (Travlos, 1987). A possible justification for this discrepancy of returns is the signaling hypothesis, which posits that financing a transaction using stock implies the negative information that the bidding firm is overvalued. Surprisingly, if the target is a privately held firm, bidders experience a positive abnormal return (Chang, 1998). When the transaction is a takeover, the negative effects are in part offset by the positive effect of the takeover announcement. After the transaction, the acquiring firms continues to outperform their industry peers (Heron & Lie, 2002), however there is no evidence that the method of payment provides information about the firm's future operating performance.

2. Industry Overview

This section includes an overview of the business and financial profile of the two firms analyzed, WhiteWave and PepsiCo, as well as a review of the food and beverage industry, in which they both operate.

2.1. The Food and Beverage Industry

Both WhiteWave and PepsiCo operate in the consumer packaged goods (CPG) industry, more precisely in the food and beverages sector. The global CPG industry is growing at a fast pace and is expected to nearly double in size to $14 trillion by 2025, from $8 trillion in 2014, (McKinsey&Company, 2015). The food and beverage sector is highly competitive with several powerful and widely known players such as Nestlé, General Mills and Mondelēz International.

2.1.1. Industry Environment

The intense competition and high capital requirements of the food and beverage industry are a constraint to growth and a barrier for expanding geographically. Over the past years, several firms in the sector have been focusing in expanding to the BRICs. Today, however, this trend is changing due to the intense competition established in these emerging countries. Firms are increasingly shifting their focus to other regions of the world, such as Africa and non-BRIC Asia and Latin America. By 2025 emerging markets *"will account for $30 trillion in consumer spending, or nearly half of global consumption"* (McKinsey&Company, 2015). The substantial growth of the global middle class will also impact demand in the industry. As stated by the Director of the OECD Development Centre *"the size of the global middle class will increase from 1.8 billion in 2009 to 3.2 billion by 2020 and 4.9 billion by 2030*" (Mario Pezzini, 2012).

The most relevant key competitive advantages to succeed in the industry consist of: product innovation; product quality and price; brand recognition and loyalty; product packaging; effectiveness of marketing; and lastly, the ability to identify and satisfy consumers' tastes and preferences. Therefore, research and development is a key driver in the industry.

The risks that affect the operations of firms in this sector include adverse weather conditions, natural disasters and other unpredictable events that affect raw materials' production and have a negative impact on costs and operating margins.

2.1.2. Current Trends and Challenges

Figure 3 illustrates the current performance of the key players operating in the industry. Overall, revenues in the food industry have grown at 6.9%, while EBIT has grown at 5.0% (≈35% of the industry has declining EBIT) (PwC, 2015).

Figure 3-Performance Overview Within the Food Industry (2010-2013)

(PwC, 2015)

The food industry is highly affected by changes on consumers' preferences which includes taste, lifestyle and social trends. Consumers are increasingly health conscious and place greater importance on environmental sustainability, mostly in developed countries *"but more and more in emerging markets"* (McKinsey&Company, 2015).

There is an increased demand for "*healthier, functional and certified food that are guaranteed to meet a certain level of safety and environmental or corporate social responsibility* (McKinsey&Company, 2015)*"*. Consumers are more informed about what they buy and are increasingly interested in natural foods (Financial Times, 2013). Consequently, there is an increasing number of government regulations for food production, such as labeling requirements and organic and environmental regulations. This is a relevant characteristic of the sector, since a failure to comply with food safety and environmental laws may disrupt the

supply of products. Moreover, a high number of government regulations increases compliance costs and challenges firms to maintain their profitability margins.

Another trend affecting the food industry is the increasing number of lactose intolerant individuals. In fact, approximately 75% of the adult population loses its ability to digest lactose (U.S. National Library of Medicine, 2012). In South America, Africa and Asia, the prevalence is around 50% and is expected to increase by 100% in some Asian countries (British Journal of Cancer, 2014).

2.1.3. Growth Opportunities

The first growth opportunity relies within the organic food segment. Consumers are shifting their preferences from *"gluten, simple carbohydrates and artificial ingredients to protein, fiber, whole grains and organic products"* (General Mills, 2015). As so, several players of the industry such as The Coca-Cola Co., are facing a decrease in sales because their processed foods and sugary drinks are inconsistent with the current concerns for health and wellness. In order to clean their brand image and win credibility with customers, these large firms are buying smaller natural and organic companies.

By buying such brands these firms are not only investing in improving their customer's loyalty, but also entering into a fast growing market. U.S. industry sales for "*natural and organic foods have been growing at a double-digit pace over the past three years"* (General Mills, 2015) and non-carbonated drinks are expected to grow at 4-5% as opposed to canned food and carbonated drinks which are expected to grow at less than 1% (McKinsey&Company, 2015). The growth of the organic sector is outpacing the growth of the overall food and beverage industry (WhiteWave, 2014), providing an opportunity for firms to enter this market.

The second major opportunity is in the plant-based food and beverages segment. Although lactose-intolerant individuals can consume small amount of dairy products, they are usually recommended to avoid them (British Journal of Cancer, 2014) and to opt for dairy alternatives, such as plant-based food and beverages. Plant-based beverages are becoming increasingly popular among consumers[9], hence, firms have the opportunity to expand into this category, in

[9] US household penetration increased from18% in 2010 to 31% in 2015

particular to regions with high rates of lactose intolerance[10] such as in Asia and South America. In addition to beverages, other plant-based categories in the U.S., such as yogurt or ice cream, are expected to be worth $2.7 billion according to WhiteWave's CEO, Gregg Engles (cf. Appendix 1), representing a substantial opportunity for firms in the industry to explore this still undeveloped segment.

2.1.4. M&A in the Industry

Over the past years, M&A activity in the food and beverage sector has accelerated, *"with more than 200 announced US deals over $50 million in the last five years, totaling about $235 billion"* (PwC, 2015). Geographic expansion and economies of scale or learning are amongst the most frequent motives for takeovers in the industry (cf. Appendix 2).

[10] The rates of lactose intolerance vary with the region of the world, Northern Europe has the lowest rate, (5% in the Netherlands) whereas Asia and Africa have the highest intolerance rates (98% in Southeast Asia)

2.2. The WhiteWave Foods Company

2.2.1. Business Profile

As stated in the company's 2014 annual report, *"WhiteWave Foods is a leading consumer packaged food and beverage company that manufactures, markets, distributes, and sells branded plant-based foods and beverages, coffee creamers and beverages, premium dairy products and organic products throughout North America and Europe"*.

The firm's popular brands in North America are Silk® and So Delicious®, plant-based foods and beverages; International Delight® and LAND O LAKES®, coffee creamers and beverages; Horizon Organic®, premium dairy products; and Earthbound Farm®, organic salads, fruits and vegetables. In Europe, WhiteWave is mostly recognized for Alpro® and Provamel®, brands of plant-based foods and beverages. Recently, WhiteWave formed a joint venture (49% owned) with China Mengniu Dairy Company and sells plant-based beverages in China under the Silk® ZhiPuMoFang brand.

Figure 4-WhiteWave's Most Popular Brands

With 4,500 employees[11], the firm sells products mainly in North America (85% of 2014 sales) and Europe, to grocery stores, mass merchandisers and convenience stores. WhiteWave is extremely dependent on its largest customer, Wal-Mart, which accounted for 44% of the total net sales in 2014. This may affect the profitability of the business since Wal-Mart may seek to use its position to lower pricing and increase promotional programs.

2.2.2. Key Competitive Advantages and Challenges

The company's main competitive advantage is its ability to quickly identify and meet consumers' changing needs and preferences. The product categories that distinguish WhiteWave within the industry – plant-based foods and beverages; coffee creamers and beverages; premium dairy products and organic products – are aligned with the consumers' emerging concerns for health as well as the increase in lactose intolerance. Currently the firm

[11] December 2014

is focused on meeting consumers' *"increasing desires for nutritious, flavorful, convenient, and responsibly-produced products"* (WhiteWave, 2014).

WhiteWave operates in a highly competitive industry along with larger firms that have substantial financial and marketing resources. The firm competes with global players of the food industry such as Group Danone, Nestlé S.A. and Kraft Foods Group, as well as with natural and organic food firms like Organic Valley. The largest competitors may be able to introduce innovative products more quickly or to market their products more successfully than WhiteWave. This disadvantage can have a negative impact in the growth rate of certain categories, volume growth and market share.

Overall, WhiteWave's future growth and profitability will depend on its ability to meet customers' demand and support the required operating costs and capital expenditures. The firm's manufacturing plants are operating at high rates of utilization, hence, one challenge facing WhiteWave is to maintain sufficient internal production capacity by expanding the production facilities or by entering into co-packing agreements[12].

2.2.3. WhiteWave and Dean Foods

Until its initial public offering in October 2012, the company operated as a segment of Dean Foods, rather than as a stand-alone company. One of the reasons that led Dean Foods to do the IPO of the *Silk* products and *Horizon Organic* dairy products was to relieve debts (Financial Times, 2012). The company used the proceeds to reduce its long-term debt by approximately 33%. The market reacted positively to this transaction and the stock increased by approximately 40%, from $12.42 to $14.95 (cf. Appendix 3) at the announcement (August 2012).

Since 2012, the number of customers for WhiteWave's products has been increasing and the company is struggling to meet the demand, making it a prime takeover target (Business Insider, 2015).

[12] i.e. to rely on third parties to provide manufacturing and supply services

2.2.4. Financial Profile

Currently, WhiteWave operates independently with a market capitalization of $7,259 million[13] and a stock price of $41.6. The firm has an EBITDA multiple[14] of 23, which is 28% higher than the average multiple of its peer group[15].

In terms of size, in 2014 the firm generated sales over $3 billion and an EBITDA of $388 million. Since 2013, the volume of sales has been increasing by an average annual rate of 19.3%, significantly outperforming the growth performance of its industry's peers (5.5%).

WhiteWave has a level of leverage in line with the industry average of 20% net debt-to-enterprise value (cf. Appendix 4). In 2016, net debt is expected to be 3x the value of EBITDA, slightly higher than the peer group level (≈ 2.5x).

2.2.4.1. Growth Performance

As previously referred, the firm has been achieving significant growth since 2012 and is expected to continue to outperform its peers over the next periods (Table 1). The firm's extraordinary growth over the last years is a combination of both organic growth and acquisitions. WhiteWave has been acquiring several organic food brands in order to establish a strong presence into the fast growing segments in which it operates.

Table 1-Historical and Expected Growth

(%)	Total Revenue, 3 Yr CAGR	EBITDA, 3 Yr CAGR	Revenue Growth (Next Yr/This Yr)
WhiteWave	19,3	15,6	11,8
Variation	*13,8*	*11,3*	*9,0*
Peer mean	5,5	4,2	2,8

Thomson Reuters, 26/10/2015

2.2.4.2. Profitability Performance

Regarding WhiteWave's profitability, the firm's ability to convert sales into profit has been slightly bellow the average level of the industry (Table 2). One reason might be the fact that WhiteWave competes with producers of non-organic products that have lower production costs

[13] Market values were taken from Thomson Reuters (05/11/15)
[14] Trailing twelve months (TTM)
[15] The group consists of General Mills Inc., Danone S.A., Kellogg Co., Campbell Soup Co., Hain Celestial Group, Hershey Co., Mondelēz International Inc., and J M Smucker Co.

and therefore can achieve higher margins. Regarding the historic price-to-earnings ratio, the firm is above the industry's peers which reflects investors' bullish expectations of future earnings.

Table 2-Profitability Ratios

	EBITDA Margin (%)	Operating Profit Margin (%)	Net Income Margin (%)	Historic P/E	Net Profit Margin (%)
WhiteWave	11	8	4	44	4
Variation	*-5,9*	*-3,7*	*-2,7*	*13,4*	*-2,8*
Peer mean	17	11	7	31	7

Thomson Reuters, 26/10/2015

2.2.4.3. Management Effectiveness

On what concerns the ability to generate returns for its investors, the firm is underperforming comparing with its peers. In fact, Table 3 shows that WhiteWave has a return on equity below the peer average, suggesting that it could improve its ability to effectively manage the capital entrusted by shareholders and generate more income for them.

Table 3-Efficiency Ratios

(%)	Return on Total Assets	Return on Common Equity	Return on Capital	Reinvestment Rate	Reinvestment Rate, 5 Yr Avg
WhiteWave	5	13	5	14	NA
Variation	*-0,5*	*-6,2*	*-5,4*	*4,7*	NA
Peer mean	5	19	10	9	16

Thomson Reuters, 26/10/2015

2.2.4.4. Stock Performance

The firm's stock price increased 11% over the last year and in 2015, ranged between $32.37[16] and $52.53[17]. In 2013, for the first time since the IPO, WhiteWave outperformed the S&P index (cf. Appendix 5), since then the stock price returns have been consistently higher than those of the S&P 500 index (Figure 5). In fact, since October 2012 WhiteWave's stock value increased by 150.69% outperforming the S&P 500 increase of 49.02%.

[16] 52-week low (14/01/15)
[17] 52-week high (05/08/15)

Figure 5-WhiteWave's Daily Stock Price Evolution Since the IPO (Oct.2012- Nov.2015)

In orange: WhiteWave, in purple: S&P500

2.2.4.5. Ownership and Governance Structure

Regarding WhiteWave's ownership structure, 98.19% of the outstanding shares are free float and the remaining 1.81% are owed by ten strategic entities. Institutional investors, owe the majority of the shares outstanding (79.42%) and are either investment managers (≈75%) or brokerage firms (≈5%), mostly from the US. More than one third of all outstanding shares are detained by only 10 investors.

Regarding WhiteWave's governance, Table 4 summarizes its structure and key persons.

Table 4- Governance Structure

Name	Position
Gregg L. Engles	Chairman of the Board of Directors and Chief Executive Officer
Kelly J. Haecker	Executive Vice President and Chief Financial Officer
Bernard P.J. Deryckere	Executive Vice President and Chief Executive Officer, Europe Foods & Beverages
Blaine E. McPeak	Executive Vice President and President, Americas Foods & Beverages
Kevin C. Yost	Executive Vice President and President, Americas Fresh Foods
Edward F. Fugger	Executive Vice President, Strategy and Corporate Development
Roger E. Theodoredis	Executive Vice President, General Counsel
Thomas N. Zanetich	Executive Vice President, Human Resources

WhiteWave, 2015

2.3. PepsiCo

2.3.1. Business Profile

PepsiCo Inc. is a global food and beverage company with 271,000 employees[18]. The Company manufactures, markets, distributes and sells a variety of beverages, foods and snacks, in every continent, over 200 countries. The company owns 22 billion-dollar iconic brands, including among others, Pepsi, Tropicana, Schweppes, 7UP, Gatorade, Frito-Lay, Fritos, Quaker and Lay's (cf. Appendix 6).

Figure 6-PepsiCo's Most Iconic Brands

The Company operates through six segments: Frito-Lay North America, Quaker Foods North America, Latin America Foods, PepsiCo Americas Beverages, PepsiCo Europe (Europe) and PepsiCo Asia, Middle East and Africa.

PepsiCo's main competitors include The Coca-Cola Co., Monster Beverage Co., Kellogg Co., Nestlé S.A., Red Bull GmbH and Snyder's-Lance, Inc.

2.3.2. Key Competitive Advantages and Challenges

Indra K. Nooyi, PepsiCo's Chairman of the Board and CEO, highlights adaptability as a core attribute that contributes to PepsiCo's strong outperformance. In the 2014 annual report, she explained that PepsiCo *"anticipated major shifts in the consumer landscape and business environment and met them head-on by preemptively retooling the company for advantage and growth."* In fact, PepsiCo has been focusing on beverages with less sugar and more natural ingredients, such as the Tropicana fruit juices, in order to respond to consumers' concerns about calories and healthier products (Reuters, 2015). The company should act quickly and pursue with its focus on organic and natural food, in order to distant itself from the image of a producer of unhealthy, salty, and sugary food and drinks.

[18] December, 2014

2.3.3. Financial Profile

PepsiCo has a market capitalization of $146,588 million[19] and a stock price of $100.7. The firm is one of the biggest players in the food and beverage industry with total annual revenues of $66,683 million (in 2014). In 2015, the firm's EBITDA multiple (TTM) was 15.8% which is 18% lower than the peer group[20] average (19.4).

PepsiCo is less leveraged than the target firm and then the peer group average. Its net debt represents 12.4% of its enterprise value and 1.7x of its expected 2016 EBITDA (cf. Appendix 7).

2.3.3.1. Growth Performance

Unlike WhiteWave, PepsiCo's sales have been declining over the past years, mostly due to consumers' shift towards non-carbonated drinks. In fact, total revenues of the Americas beverages segment declined 4% from 2013 to 2014.

Table 5 clearly shows the decline in EBITDA suffered by PepsiCo in the last periods. Although revenues are expected to increase by 1.6% in the next periods, the firm's growth will still remain below its peers.

Table 5-Historical and Expected Growth

(%)	Total Revenue, 3 Yr CAGR	EBITDA, 3 Yr CAGR	Revenue Growth (Next Yr/This Yr)
PepsiCo	0,1	-0,2	1,6
Variation	-1,7	-2,7	-0,7
Peer mean	1,8	2,5	2,3

Thomson Reuters, 26/10/2015

2.3.3.2. Profitability Performance

Looking at the profitability margins (Table 6), we can observe that PepsiCo is underperforming its peers, particularly regarding the net profit margin, but is significantly above WhiteWave's margins. However, the historic price-to-earnings ratio is about half the target firm's ratio

[19] Market values were taken from Thomson Reuters (05/11/15)
[20] The peer group of PepsiCo consists of Coca-Cola Co., Dr. Pepper Snapple Group Inc., Nestlé S.A. and Kellogg Co.

(44.42), which reflects the differences in investors' expectations regarding future earnings growth between the two firms.

Table 6-Profitability Ratios

	EBITDA Margin (%)	Operating Profit Margin (%)	Income Aft Tax Margin (%)	Historic P/E	Net Profit Margin (%)
PepsiCo Inc	19	14	10	23	10
Variation	*-1,3*	*-0,4*	*0,1*	*-2,3*	*-2,0*
Peer mean	21	15	10	25	12

Thomson Reuters, 26/10/2015

2.3.3.3. Management Effectiveness

Despite the declining trend in revenues and profitability, PepsiCo is efficiently managing its shareholders' capital, clearly outperforming its peers (Table 7).

Table 7-Efficiency Ratios

(%)	Return on Total Assets	Return on Common Equity	Return on Capital	Reinvestment Rate	Reinvestment Rate, 5 Yr Avg
PepsiCo	7	27	17	13	14
Variation	*1,6*	*7,7*	*2,8*	*0,8*	*-0,3*
Peer mean	5	20	14	12	15

Thomson Reuters, 26/10/2015

2.3.3.4. Stock Performance

The firm's stock price increased 8.39% over the last year, less than WhiteWave's stock price growth of 11% over the same period. In 2015, the price reached a maximum value of \$76.48[21]and a minimum of \$103.44[22]. Unlike WhiteWave's stock, since 2012, PepsiCo has underperformed the S&P 500 index (cf. Appendix 5 & Figure 7).

[21] 52-week low (14/01/15)
[22] 52-week high (05/08/15)

Figure 7-Pepsico's Daily Stock Price Evolution (Oct.2012-Nov.2015)

In orange: PepsiCo, in purple: S&P500

2.3.3.5. Ownership and Governance Structure

PepsiCo's ownership structure is quite similar to that of WhiteWave. Institutional investors, owe the majority of the shares outstanding (72.5%) and are either investment managers (≈67.8%) or brokerage firms (≈3.7%), mostly from the US, whereas individual investors owe only 0.22%. Investors' ownership is not as concentrated as in WhiteWave, since 10 investors owe 23% of all the outstanding shares (vs. ≈33%).

On what concerns PepsciCo's governance, Table 8 summarizes its structure and key persons.

Table 8- Governance Structure

Name	Position
Albert P. Carey	Chief Executive Officer, PepsiCo Americas Beverages
Sanjeev Chadha	Chief Executive Officer, PepsiCo Asia, Middle East and Africa
Marie T. Gallagher	Senior Vice President and Controller, PepsiCo
Thomas Greco	Chief Executive Officer, Frito-Lay North America
Enderson Guimaraes	Executive Vice President, Global Categories and Operations
Hugh F. Johnston	Executive Vice President and Chief Financial Officer, PepsiCo
Dr. Mehmood Khan	Vice Chairman, PepsiCo; Executive Vice President, PepsiCo Chief Scientific Officer, Global R&D
Ramon Laguarta	Chief Executive Officer, PepsiCo Europe
Laxman Narasimhan	Chief Executive Officer, PepsiCo Latin America Foods
Indra K. Nooyi	Chairman of the Board of Directors and Chief Executive Officer, PepsiCo
Cynthia M. Trudell	Executive Vice President, Human Resources and Chief Human Resources Officer, PepsiCo
Tony West	Executive Vice President, Government Affairs, General Counsel and Corporate Secretary, PepsiCo

PepsiCo, 2015

2.4. Conclusions and Deal Rationale

By analyzing the growth performance of both firms, we can observe a clear dispersion in terms of historical and expected growth levels. PepsiCo's sales have been declining over the past years as a result of an increasing appeal for the products that WhiteWave commercializes i.e. organic and healthy food and beverages. In fact, WhiteWave is a market leader both in the US and in Europe, with its brands of plant-based food and drinks. Considering the current trends in consumers' preferences presented earlier, it is clear that the organic segment represents an opportunity for large producers of processed food and drinks such as PepsiCo, to improve their results not only because it is a fast growing segment but also because it represents an opportunity to clear their image and regain consumers' loyalty.

Regarding the profitability margins and the ability to effectively manage assets and provide returns to shareholders, PepsiCo clearly outperforms WhiteWave. This comes as a result of decades of experience within the industry and of long-term relationships with third parties. PepsiCo has the size and the market power to benefit from economies of scale and generate higher operating margins, whereas WhiteWave is a market leader in the fastest growing segment within the industry.

A combined firm would therefore benefit from the established presence of WhiteWave in the growing segments of the industry and the scale and expertize of PepsiCo. Together, they would combine the target's skills in understanding the market and developing brands with high consumers' loyalty, with the acquirer's internal capacity of production, financial resources to invest in research & development and the scale to improve operating margins.

3. Independent Firms' Valuation

As covered in the literature review, there are two widely used methods to value a firm: the DCF analysis, which is the most used approach, and the multiples method. In this section we will analyze the value of the target and the acquirer independently, using three valuation methods: the comparables approach, the DCF-WACC and the APV.

For the DCF method, we will use a projection period of 5 years, since both firms operate in a relatively predictable and established industry that is not highly dependent on external variables, unlike natural resources or utilities firms. Moreover, they are not in an early stage of development since, although WhiteWave has been a stand-alone company for only two years, the firm operates since 1977.

3.1. Target Valuation (WhiteWave)

WhiteWave has been an independent public company since October 2012, therefore historical financial information prior to 2012 may not be representative of what the firm *"would have achieved as a stand-alone public (...) and may not be a reliable indicator of future results"* (WhiteWave 2015). In fact, data prior to 2013 does not consider the changes, both in terms of capital, cost and tax structure that occurred after the spin-off. Given the higher size of Dean Foods[23] it is expected that WhiteWave has also suffered changes in its operating performance due to a deterioration of its purchasing power. After 2012, the firm might have been unable to negotiate with third parties in such favorable terms as when it was a segment of Dean Foods. For these reasons, we will only consider historical data of 2013 and 2014 to support our financial projections of WhiteWave.

3.1.1. Comparable Companies' Analysis

3.1.1.1. Peer Group

We analyzed WhiteWave's main competitors and similar firms operating in the same industry and then filtered the most similar in terms of geographic area, size, capital structure and product line (cf. Appendix 4). We obtained the peer group and respective multiples represented in Table 9.

[23] Total sales of $9.5 billion in 2014, 180% higher than WhiteWave's

Table 9- Peer Group Multiples

Company Name	EV/Sales TTM	EV/Sales FY1	EV/EBITD TTM	EV/EBITDA FY1	EV/EBIT TTM	P/E TTM	P/E FY1
The Whitewave Foods Company	***2,5***	***2,4***	***23,1***	***18,5***	***32,0***	***54,1***	***37,7***
The Hain Celestial Group, Inc.	2,3	2,0	20,8	14,4	25,7	33,0	24,4
General Mills, Inc.	2,5	2,6	15,5	12,7	19,6	26,9	19,5
Danone	2,0	2,0	23,1	12,2	23,0	37,8	20,4
Kellogg Company	2,2	2,3	13,7	13,0	83,3	64,4	19,8
Campbell Soup Company	2,4	2,4	13,7	12,0	17,5	22,4	19,1
Mondelez International, Inc.	2,8	3,3	20,1	25,6	18,4	36,8	26,0
J M Smucker Co	3,2	2,5	20,3	12,2	29,7	35,6	20,7
Hershey Co	3,1	3,1	17,1	13,6	20,7	37,2	23,1
Mean (1)	**2,6**	**2,7**	**18,6**	**16,8**	**27,3**	**37,4**	**22,3**

(1) Weighted average by the market capitalization

3.1.1.2. Multiples and Firm Value

Using the average of the peer's multiples and WhiteWave's financial data (cf. Appendix 8) the firm value is between $6,754 and $11,496 million.

Table 10-Multiples' Valuation

	EV/Sales TTM	EV/Sales FY1	EV/EBITDA TTM	EV/EBITDA FY1	EV/EBIT TTM	P/E TTM
Equity Value	7 249	9 914	5 646	7 019	5 698	5 172
Enterprise Value	8 831	11 496	7 228	8 601	7 280	6 754

USD Millions

We will focus on the EBITDA FY1 multiple since it is an important measure of profitability and it can be used as a proxy for operating cash flow. Moreover, the EBITDA multiple is useful to compare companies in the same sector regardless of their capital structure, depreciation level and tax expenditures. By performing a sensitivity analysis to the enterprise value using the EBITDA FY1 multiple (cf. Appendix 9), we obtained a firm value between $7,801 and $9,482 million.

3.1.2. Financial Projections

Appendices 10, 11 and 12 present the complete forecasts of the income statement, balance sheet and cash flow statement for the target firm.

3.1.2.1. Revenues

As covered in the industry review, the segments in which WhiteWave operates – organic and plant-based food and beverages – are growing at an extremely fast pace, as a result of an increase in the demand.

In 2013, revenues increased by 11% and in 2014, the firm more than tripled its annual growth rate to 35%. This extraordinary expansion was a result of both organic growth (≈11%[24]) and of two business acquisitions: *So Delicious* and *Earthbound*, for approximately $22.7 and $573 million respectively, both in cash. These acquisitions increased revenues by $596 million, in 2014.

In 2015, the acquisition trend continued and the firm acquired *EIEIO, Inc*. and *Wallaby Yogurt Company, Inc*., for approximately $40.2 and $125 million, respectively, both in cash using borrowings under the existing credit facility. On June 9, 2015 the firm announced its plans to acquire *Sequel Naturals Ltd*, for around $550 million in cash, in order to expand its fast-growing segment of plant-based foods and beverages.

The 2015 acquisitions, in particular the new brand Vega[25], are expected to generate annual revenues of approximately $130 million[26]. Given that the acquisitions were made throughout the period of 2015, we considered that it would take two periods to incorporate the full amount of additional revenues, which is 3.8% of the 2014 revenues. Therefore in 2015, we assumed that WhiteWave's revenues would have an organic growth of 10% plus an additional growth of 2.2%[27] resulting from the acquisition:

$$g\ 2015 = 10\% + 3.8\% \times (\frac{7}{12}) \tag{4}$$

For the period of 2016, the remaining additional revenues will be incorporated and we considered the same organic growth rate:

$$g\ 2015 = 10\% + 3.8\% \times (\frac{5}{12}) \tag{5}$$

[24] Organic Growth (%)=Total annual growth (35%)-Acquisition growth (24%)
[25] Vega is the main brand of *Sequel Naturals Ltd*
[26] Vega had annual sales of $100 million in 2014 and presented a 30% annual growth. We assumed this growth rate would continue over the next two periods
[27] Vega was acquired in July, therefore, in 2015 WhiteWave will incorporate 7/12 of its revenues

Since we didn't consider any future acquisitions, for the periods of 2017 and 2018 we used analysts' estimates[28] (Table 11). Finally, for the last two periods, we considered that the firm would be closer to a steady state, hence, we computed an annual growth rate (equation 6) lower than in the previous periods (cf. Appendix8).

$$g\ 2019/20\ = Annual\ GDP\ + \pi + \ ROIC \times Reinvestment\ Rate \tag{6}$$

3.1.2.2. EBITDA

The cost of goods sold (COGS) represented around 64% of sales in 2014 and increased to 66% in 2015 due to the impact of acquisitions. In 2015, we assumed that the COGS level will be the average of the past two periods, since we didn't expect any relevant changes in the negotiation power with third parties or significant price variations of raw materials. For the subsequent periods, we considered that the firm will be able to reduce its COGS level and improve the gross margin by 0.4% yearly until 2020 (Table 11).

Regarding the Selling, General and Administrative (SGA) expenses, in 2015 there will be an increase of $13.2 million due to higher employee related costs required to accommodate the business expansion and the employee long-term incentive compensation; and $17.4 million related to higher marketing and distribution expenditures (WhiteWave, 2015). Also, in the period of 2015, SGA expenses will include extraordinary transaction-related costs[29]. We computed the total SGA of 2015 as follows:

$$SGA\ 2015\ = \left(\frac{SGA\ 2014}{Revenues\ 2014}\right) \times Revenues\ 2015 + Transaction\ cost + \ \Delta\ Employee + \ \Delta\ Marketing\ Costs \tag{7}$$

For the subsequent years, the level of SGA costs will be the average of the levels in 2014 and 2015.

[28] Thomson Reuters (22/12/15)

[29] In 2015, there were extraordinary expenses of $2.7 million associated with the acquisitions of *Magicow* and *Vega* and $2.4 million associated with the integration of *So Delicious* and *Earthbound Farm*

Table 11-EBITDA Projections

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 265	5 575
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	*5,8%*	*5,9%*
Cost of Revenue	(1 486)	(1 635)	(2 283)	(2 521)	(2 801)	(3 000)	(3 215)	(3 387)	(3 572)
%Sales	*-64,9%*	*-64,3%*	*-66,4%*	*-65,4%*	*-65,1%*	*-64,9%*	*-64,6%*	*-64,3%*	*-64,1%*
Gross Profit	**804**	**908**	**1 153**	**1 335**	**1 501**	**1 626**	**1 762**	**1 878**	**2 002**
Gross Margin	*35%*	*36%*	*34%*	*35%*	*35%*	*35%*	*35%*	*36%*	*36%*
SGA Costs	(571)	(627)	(751)	(897)	(971)	(1 043)	(1 123)	(1 188)	(1 258)
%Sales	*-24,9%*	*-24,7%*	*-21,8%*	*-23,3%*	*-22,6%*	*-22,6%*	*-22,6%*	*-22,6%*	*-22,6%*
Research & Development	(12)	(13)	(16)	(18)	(20)	(21)	(23)	(24)	(25)
Asset disposal and exit costs	--	(24)	1	--	--	--	--	--	--
Related Party Income	36	--	--	--	--	--	--	--	--
EBITDA	**257**	**243**	**388**	**420**	**511**	**561**	**617**	**666**	**720**
EBITDA Margin	*11%*	*10%*	*11%*	*11%*	*12%*	*12%*	*12%*	*13%*	*13%*
EBITDA growth		*-6%*	*60%*	*8%*	*22%*	*10%*	*10%*	*8%*	*8%*

USD Millions

Research and Development (R&D) costs will represent the same level of sales as in 2014 (≈0.5%). EBITDA is expected to be $420 million in 2015, which represents an 8% growth comparing with the previous year. The EBITDA margin will progressively improve during the forecast period, reaching a level of approximately 13% in 2020, which is still lower than the peer group average in 2015 (17%).

3.1.2.3. CAPEX

In 2013, WhiteWave incurred capital expenditures (CAPEX) representing 5% of the sales and in 2014, it increased to 9%. The firm is operating at full capacity regarding its manufacturing and warehouse infrastructures and given the expected expansion of its operations, the firm will have to incur in substantial capital expenditures in order to accommodate these changes. Therefore, we assumed that the annual CAPEX would be 20% of the previous year value of property, plant and equity (PPE), which results in a CAPEX level over sales consistent with the US food industry levels 6% in 2014 (Damodaran, 2014). In 2015, the CAPEX level will be higher than in the rest of the forecasted periods because it includes the cost of the assets from the acquired firms.

Table 12-CAPEX Projections

Capex	2015	2016	2017	2018	2019	2020
Investment in manufacturing and warehouse capability	199	214	229	244	259	273
Acquisition of intangible assets	339	--	--	--	--	--
Capital Expenditures	**(538)**	**(214)**	**(229)**	**(244)**	**(259)**	**(273)**
% Sales	-14%	-5%	-6%	-6%	-6%	-6%

USD Millions

3.1.2.4. Depreciation & Amortization

For the existing PPE and intangibles assets, we used the depreciation and amortization levels of 2014 and for the new assets we assumed a useful life of 15 years[30]. The assumptions regarding the value of the new assets from the acquisitions are presented in the appendix 13.

Table 13-Depreciation & Amortization Projections

Depriciation & Amortization	2012	2013	2014	2015	2016	2017	2018	2019	2020
Existing Intangible assets	(3)	(3)	(11)	(11)	(11)	(11)	(11)	(11)	(11)
% Intagible assets	*-1%*	*-1%*	*-2%*	*-2%*	*-2%*	*-2%*	*-2%*	*-2%*	*-2%*
Intangible assets acquired	--	--	--	(9)	(9)	(9)	(9)	(9)	(9)
Annual amortization rate	--	--	--	*-7%*	*-7%*	*-7%*	*-7%*	*-7%*	*-7%*
Existing PPE	(74)	(82)	(111)	(111)	(111)	(111)	(111)	(111)	(111)
% Tangible assets	*-12%*	*-12%*	*-11%*	*-12%*	*-12%*	*-12%*	*-12%*	*-12%*	*-12%*
New PPE	--	--	--	(13)	(27)	(43)	(59)	(76)	(94)
Annual depreciation rate	--	--	--	*-7%*	*-7%*	*-7%*	*-7%*	*-7%*	*-7%*
Total Depreciation & Amortization	**(77)**	**(85)**	**(121)**	**(144)**	**(158)**	**(173)**	**(190)**	**(207)**	**(225)**

USD Millions

3.1.2.5. Investment in Working Capital

For the working capital projections, we used the ratios of the previous period as we didn't expect significant changes to occur regarding the days of payables and receivables (cf. Appendix 14). We assumed that the firm operates with a minimum cash balance of 1% of sales. Overall, working capital will represent 2% of sales, which is consistent with the previous low levels of working capital needs (Table 14).

Table 14-Working Capital Projections

Working Capital	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assets	**363**	**405**	**539**	**601**	**672**	**719**	**773**	**817**	**863**
Minimum cash balance	50	50	50	56	63	67	72	77	81
%Sales	*2%*	*2%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
Inventory	147	159	216	238	265	283	304	320	337
Total receivables	124	147	193	216	241	259	279	295	313
Prepaid expenses (including tax receivables)	22	23	50	56	63	68	73	77	82
Deferred income tax	21	27	30	34	40	42	45	48	51
Liabilities	**(308)**	**(372)**	**(470)**	**(520)**	**(578)**	**(619)**	**(663)**	**(699)**	**(737)**
Accounts payable and accrued payable	(277)	(338)	(442)	(488)	(543)	(581)	(623)	(656)	(692)
Income taxes payable	(12)	(14)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other current liabilities	(19)	(19)	(27)	(31)	(34)	(37)	(40)	(42)	(44)
Working Capital	**56**	**34**	**69**	**81**	**94**	**101**	**110**	**118**	**126**
% Sales	*2%*	*1%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*
Investment in WC		**(22)**	**35**	**13**	**13**	**7**	**9**	**8**	**8**

USD Millions

[30] The acquired intangible assets in 2015 have a depreciation period of 15 years (WhiteWave, 2015), we assumed this value for the new PPE

3.1.2.6. Debt Structure

At the end of 2014, WhiteWave had a $2 billion senior secured credit facility, of which $995 million consisted of term loan borrowings, divided into term loan A-1 (≈$250 million) and A-2 (≈$750 million), and the remaining $1 billion consisted of a five-year revolving commitment. Additionally, the firm had issued a $500 million bond (Table 15).

Table 15-Debt Structure in 2014

Debt Structure (@2014)	Amount	Interest Rate*
Senior secured credit facilities	995	2,11%
Senior unsecured notes	500	5,38%
Total Debt	**1 495**	
Capital lease obligations	22	
Current portion	(21)	
Total long-term debt	1 496	

*Represents a weighted average rate

USD Millions

During 2015, the firm had outstanding borrowings of over $1.6 billion under the $2.0 billion senior secured credit facility, due to the incurrence of additional $691 million in indebtedness related to the acquisitions of Vega and Wallaby. Total debt at the end of 2015 is expected to be $2,186 million (Table 16).

Table 16-Debt Structure in 2015

Debt Structure (@2015)	Amount
Existing senior secured credit facilities	995
New senior secured credit facility	691
Senior unsecured notes	500
Total Debt	**2 186**
Capital lease obligations	22
Current portion	(24)
Total long-term debt	2 184

*Represents a weighted average rate

USD Millions

The annual debt payments of the new senior secured credit facility (Table 17) were projected using the same payment rate of term loan A-1[31]:

$$Payments\ of\ new\ debt = \frac{Current\ portion\ \ A1}{Notional\ amount\ A1} \times 691 \tag{8}$$

[31] The annual debt payments and annual interests' expenses related to the 2014 debt levels were obtained from the 2014 annual report

Table 17-Debt Projections

Debt structure	2014	2015	2016	2017	2018	2019	2020
Proceeds of new debt	--	691	--	--	--	--	--
Current portion term loan A1	13	14	19	20	20	20	20
% Term loan A1	--	--	*0%*	*8%*	*8%*	*8%*	*8%*
Current portion of new debt	--	2	55	55	55	55	55
Current portion term loan A2	8	8	8	8	8	8	8
Capital lease obligations	1	1	1	1	1	2	2
Total capital lease obligation	22	22	21	19	18	16	15
Total current portion	21	24	82	83	83	83	83
Total long-term debt	**1496**	**2184**	**2123**	**2059**	**1994**	**1927**	**1859**

USD Million

We included the additional interests' expenses, related to the new debt, by applying the same rate of the previous debt (Table 18).

Table 18-Interest Expenses

Interest Expenses	2015	2016	2017	2018	2019	2020	Thereafter
Interest payments (2014 debt level)	(84)	(77)	(77)	(45)	(45)	(54)	(109)
% Total long term debt (2014)	*-6%*	*-5%*	*-5%*	*-3%*	*-3%*	*-4%*	*-7%*
Additional interest payments	(39)	(36)	(36)	(21)	(21)	(25)	(50)
% New senior secured credit facility	*-6%*	*-5%*	*-5%*	*-3%*	*-3%*	*-4%*	*-7%*
Interest Expenses	**(123)**	**(113)**	**(113)**	**(66)**	**(66)**	**(79)**	**(159)**

USD Millions

3.1.3. DCF - WACC

3.1.3.1. Cost of Capital

Cost of Debt

As covered in the literature review, the cost of debt will be the risk free rate plus the default premium[32] based on the ratings of the outstanding bonds. We obtained a cost of debt of 5.5% (Table 19).

Table 19-Cost of Debt

Cost of Debt	
Bond Rating	
S&P	BB
Moody's	B1
Spread	***3,3%***
Risk free rate	2,3%
Cost of Debt	**5,5%**

[32] The default spreads were obtained from Damodaran (2015)

Cost of Equity

We used the CAPM approach to determine the cost of equity and obtained a value of 8.3% (Table 20), which is consistent with the levels in the industry[33].

Although the most common length for the beta is a 5-year period of monthly observations, since WhiteWave has been a stand-alone firm only since 2012, we chose the firm's 3-year weekly-levered beta.

We used a market risk premium of 5.5% based on the value used by firms in the US in 2015 (Fernandez, Ortiz e Acin 2015). Considering the relevant size, geographic area and performance of WhiteWave, we consider that a 5.5% premium is high enough to account for the risk of the firm. Lastly, for the risk-free rate we used the yield of the 10 year US T-bills, which reflects the return of a long-term investment.

Target Capital Structure

We based our target capital structure on the current and historical levels of market net debt-to-enterprise value for WhiteWave, as well as the average level of its peers. In 2014 and until November 2015, WhiteWave had a net debt-to-enterprise value of around 18%. We considered that the current structure is optimal for the company as this level of leverage is consistent with the firm's historical levels and the level adopted for similar companies.

Table 20-Cost of Capital

WACC	
CAPM	
Beta (L)*	1,1
MRP	5,5%
Rf	2,3%
Cost of Equity	**8,3%**
Cost of debt	**5,5%**
Marginal tax rate	35%
After Tax Cost of Debt	**3,6%**
Target financing structure	
Equity	82%
Debt	18%
WACC	**7,46%**

**Thomson Reuters*

We obtained a cost of capital for the target firm of 7.46% (Table 20).

[33] The WACC for US firms is between 6.6% (food industry) and 7.5% (soft beverages industry) (Damodaran, 2015)

3.1.3.2. FCF Projections

Table 21 summarizes the free cash flow (FCF) projections obtained using the EBITDA, CAPEX and working capital described early in this section.

Table 21-FCF Projections

Free Cash Flow	2015	2016	2017	2018	2019	2020	TV
EBIT	**277**	**353**	**388**	**427**	**459**	**495**	**495**
Loss in equity method investments	(7)	--	--	--	--	--	--
Income taxes on EBIT	(94)	(124)	(136)	(150)	(161)	(173)	(173)
Depreciation & Amortization	144	158	173	190	207	225	273
EBITDA	**420**	**511**	**561**	**617**	**666**	**720**	**768**
EBITDA margin	*11%*	*12%*	*12%*	*12%*	*13%*	*13%*	*14%*
Capital Expenditure	(538)	(214)	(229)	(244)	(259)	(273)	(273)
Investment in working capital	13	13	7	9	8	8	8
Free Cash Flow	**(231)**	**161**	**190**	**214**	**239**	**265**	**313**

USD Millions

3.1.3.3. Terminal Value

"There are two widely accepted methods used to calculate a company's terminal value - the exit multiple method and the perpetuity growth method" (Pearl e Rosenbaum 2013). We used both methods in order to obtain a more reliable value range and to be able to compare the differences from the values obtain.

Perpetuity Growth Model

Equation 9 presents the terminal value (TV) using the perpetuity approach. We used the 2020 FCF and considered that the fiscal impact of the depreciations in the steady state would equal the CAPEX (Table 22).

$$TV = \frac{FCF\ TV\ \times (1 + g\ perpetuity)}{WACC - g\ perpetuity} \tag{9}$$

Table 22-Terminal Value with Perpetuity

Gordon Growth Model	2015	2016	2017	2018	2019	2020
Free Cash Flow	**(231)**	**161**	**190**	**214**	**239**	**265**
Perpetuity growth rate						5%
Perpetuity value						**11 875**
PV FCFF	(231)	150	165	173	179	185
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,7*	*0,7*
Discounted cash flow	**(231)**	**150**	**165**	**173**	**179**	**8 471**

Enterprise Value	**8 905**
Outstanding Debt	1 555
Cash	27
Equity Value	**7 378**

USD Millions

We used a perpetuity growth rate of 4.7% which is an average, weighted by volume of operations in each area, of the US and Europe expected GDP and inflation (cf. Appendix 15). We obtained an enterprise value of $8,905 million.

Exit Multiple Method

Using the exit multiple method, the terminal value will be based on current market values. We used the EBITDA FY1 multiple of the peer group and the EBITDA of 2020. As we can see on Table 23, we obtained an enterprise value of $9,634 million.

Table 23-Terminal Value with Exit Multiple

Exit Multiple Model	2015	2016	2017	2018	2019	2020
Free Cash Flow	**(231)**	**161**	**190**	**214**	**239**	**265**
EBITDA Steady State						768
EBITDA FY1 multiple						*16,8*
Terminal Value						**12 920**
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,7*	*0,7*
Discounted cash flow	**(231)**	**150**	**165**	**173**	**179**	**9 200**

Enterprise Value	**9 634**
Outstanding Debt	1 555
Cash	27
Equity Value	**8 107**

USD Millions

3.1.3.4. Firm Value

Using the DCF-WACC approach and considering the results of the sensitivity analysis, WhiteWave has a value between $7,293 and $11,365 million (cf. Appendix 16&17).

3.1.4. APV

3.1.4.1. Base Case Scenario

In order to use the APV method, we unlevered the beta of WhiteWave (cf. Equation 3) and obtained an unlevered cost of capital of 7.9% (Table 24).

Table 24-APV Assumptions

APV Assumptions	
Corporate Tax	35%
Cost of Debt	**5,5%**
Debt discount rate	6,0%
Beta (u)	1,02
MRP	5,5%
Rf	2,3%
r (unlevered)	**7,9%**

The unlevered value of the firm is $7,678 million (Table 25).

Table 25-Base Case Firm Value

Base case value	2015	2016	2017	2018	2019	2020	TV
EBIT	**277**	**353**	**388**	**427**	**459**	**495**	**495**
Loss in equity method investments	(7)	--	--	--	--	--	--
Income taxes on EBIT	(94)	(124)	(136)	(150)	(161)	(173)	(173)
Amortization	144	158	173	190	207	225	273
EBITDA	**420**	**511**	**561**	**617**	**666**	**720**	**768**
EBITDA margin	*11%*	*12%*	*12%*	*12%*	*13%*	*13%*	*14%*
Capital Expenditure	(538)	(214)	(229)	(244)	(259)	(273)	(273)
Investment in working capital	13	13	7	9	8	8	8
Free Cash Flow	**(231)**	**161**	**190**	**214**	**239**	**265**	**313**
Perpetuity value							**10 327**
Perpetuity growth rate							5%
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,7*	*0,7*	0,7
Discounted cash flow	**(231)**	**149**	**163**	**171**	**176**	**182**	**7 069**

Base case value	**7 678**

USD Millions

3.1.4.2. Interest Tax Shields

We used a discount rate of 6% for the interest tax shield, which is slightly higher than the cost of debt (+0.5%), and obtained a value of interest tax shields of $1,846 million.

Table 26-PV of Interest Tax Shields

Interest Tax Shield	2015	2016	2017	2018	2019	2020
Interest Tax Shield	43	40	40	23	23	28
Terminal Value of Tax Shields						2 238
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,8*	*0,7*
PV of Tax Shields	**43**	**37**	**35**	**19**	**18**	**1 693**

PV of Tax Shields	**1 846**

USD Millions

3.1.4.3. Bankruptcy Cost

The probability of bankruptcy was obtained using the rating of the outstanding bond and the respective default rate (cf. Figure 2). Considering the assumptions made regarding the bankruptcy costs, the negative impact of leverage is $375 million (Table 27)

Table 27- Expected Bankruptcy Costs

	Value
Default rate	12,2%
Cost of bankruptcy	**40%**
Direct	5%
Indirect	35%

PV of Expected Bankruptcy Cost	**(375)**

USD Millions

3.1.4.4. Firm Value

Using the APV method and considering the results of the sensitivity analysis (cf. Appendix 18), the enterprise value is between $8,193 and $10,865 million, of which approximately 16% is the result of leverage.

Table 28-Value Using APV

APV Valuation	Value	Impact
Base case value	7 678	84%
Side effects: interest tax shields	1 846	20%
Expected Bankruptcy Costs	(375)	-4%

Adjusted Present Value	**9 149**

USD Millions

3.1.5. Target Valuation Conclusion

Using the three methods described earlier, the target firm has an enterprise value between $8,601 million and $9,634 million (Table 29).

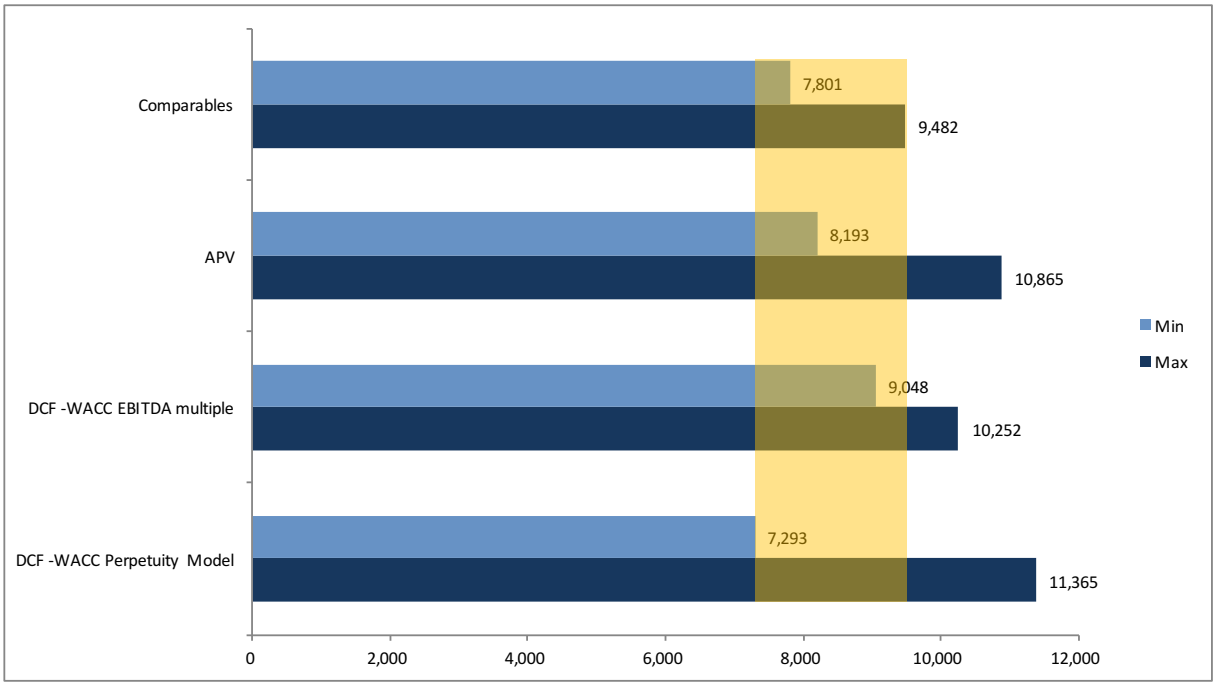
Table 29-WhiteWave's Value Range

Firm Value Range	Value	Min	Max
DCF -WACC Perpetuity Model	8 905	7 293	11 365
DCF -WACC EBITDA multiple	9 634	9 048	10 252
APV	9 149	8 193	10 865
Comparables	8 601	7 801	9 482
Market Enterprise Value	8 786		

USD Millions

Considering the impact of changes in the key valuation inputs, the value of WhiteWave is between $7,293 and $11,365 million (Figure 8). The market enterprise value ($8,786) is within in the shaded area.

Figure 8-WhiteWave's Value Range



3.2. Acquirer Valuation (PepsiCo)

3.2.1. Comparable Companies' Analysis

3.2.1.1. Peer Group

The peer group of PepsiCo (cf. Appendix 7) and respective multiples are represented in Table 30.

Table 30-Peer Group Multiples

Company Name	EV/Sales TTM	EV/Sales FY1	EV/EBITDA TTM	EV/EBIT TTM	EV/EBITDA FY1	P/E TTM	P/E FY1
PepsiCo, Inc.	***2,6***	***2,7***	***15,8***	***20,6***	***13,7***	***30,4***	***22,5***
The Coca-Cola Company	4,6	4,7	18,6	22,4	17,0	27,4	21,5
Dr Pepper Snapple Group, Inc.	3,1	3,1	13,2	15,7	12,8	23,9	22,5
Kellogg Company	2,3	2,4	35,4	85,1	13,2	66,2	20,4
Nestle Ltd.	2,8	2,9	18,9	24,4	15,1	16,7	22,8
Mean	**3,5**	**3,6**	**19,4**	**26,5**	**15,6**	**23,7**	**22,1**

(1) Weighted average by the market capitalization

3.2.1.2. Multiples and Firm Value

Using the average multiples of the peer group and PepsiCo's financial data (cf. Appendix 19), the firm value varies between $167,358 and $262,962 million.

Table 31-Multiples' Valuation

	EV/Sales TTM	EV/Sales FY1	EV/EBITDA TTM	EV/EBITDA FY1	EV/EBIT TTM	P/E TTM
Equity Value	213 046	208 826	222 957	175 639	241 823	146 219
Enterprise Value	234 185	229 965	244 096	196 778	262 962	167 358

USD Millions

By performing a sensitivity analysis to the firm value using the EBITDA FY1 multiple (cf. Appendix 20), we obtained a firm value between $178,484 and $216,948 million.

3.2.2. Financial Projections

Appendices 21, 22 and 23 present the complete projections of the income statement, balance sheet and cash flow statement of the acquirer firm.

3.2.2.1. Revenues

For the years 2015 and 2016 we based the sales growth projection on the analysts' forecasts[34] (Table 32). Starting in 2017, we assumed that the firm would grow at 2.5% annually (equation 10), which is consistent with the current growth trends of similar firms.

$$g = After\ Tax\ ROIC\ (21\%) \times Reinvestment\ Rate\ (12.8\%) \quad (10)$$

3.2.2.2. EBITDA

As we can see from Table 32, the level of COGS (in %sales) decreased 1.5% over the last two periods. We assumed that this trend would continue until 2015 and then reach a stable level of 45.6%. We observe that the gross margin will stabilize at 54%, clearly above the peer mean (47.2%).

Table 32-EBITDA Projections

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	65 492	66 415	66 683	63 349	64 362	65 996	67 670	69 387	71 148
Annual growth	*-0,6%*	*1,4%*	*0,4%*	*-5,0%*	*1,6%*	*2,5%*	*2,5%*	*2,5%*	*2,5%*
Cost of Revenue	(31 291)	(31 243)	(30 884)	(28 886)	(29 348)	(30 093)	(30 857)	(31 640)	(32 442)
%Sales	*-48%*	*-47%*	*-46%*	*-45,6%*	*-45,6%*	*-45,6%*	*-45,6%*	*-45,6%*	*-45,6%*
△ Cost of Revenue		*-1,5%*	*-1,5%*	*-1,5%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Gross Profit	**34 201**	**35 172**	**35 799**	**34 463**	**35 014**	**35 903**	**36 814**	**37 748**	**38 706**
Gross Margin	*52%*	*53%*	*54%*	*54%*	*54%*	*54%*	*54%*	*54%*	*54%*
SGA Costs	(21 986)	(21 754)	(22 238)	(21 126)	(21 464)	(22 009)	(22 567)	(23 140)	(23 727)
%Sales	*-34%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*
Research & Development	--	(665)	(718)	(682)	(693)	(711)	(729)	(747)	(766)
Operating Interests	--	(228)	(277)	(263)	(267)	(274)	(281)	(288)	(296)
EBITDA	**12 215**	**12 525**	**12 566**	**12 391**	**12 590**	**12 909**	**13 237**	**13 573**	**13 917**
EBITDA Margin	*19%*	*19%*	*19%*	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*
EBITDA growth		*3%*	*0%*	*-1,4%*	*1,6%*	*2,5%*	*2,5%*	*2,5%*	*2,5%*

USD Millions

SGA costs have been very stable in the past and will keep representing around 33% of the sales. R&D costs will represent 1% of sales as in the previous two years. Operating interests represented 0.4% of sales in 2014 and we assumed that this level would continue over the next periods.

EBITDA is expected to start growing in 2016 at around 2.5%, in line with the sales' growth. The EBITDA margin will be constant at 20%, similar to the average margin of PepsiCo's peers (Table 6).

[34] Thomson Reuters (19/10/15)

3.2.2.3. CAPEX

The firm has a stable and adequate manufacturing and warehouse capacity, and has been investing 4% of the value of revenues each year in CAPEX (Table 33). We assumed this investment level would continue since we didn't expect major shifts in terms of volume of operations.

Table 33-CAPEX Projections

Capex	2012	2013	2014	2015	2016	2017	2018	2019	2020
Capital Expenditures	**(2 714)**	**(2 795)**	**(2 859)**	**(2 716)**	**(2 760)**	**(2 830)**	**(2 901)**	**(2 975)**	**(3 050)**
% Sales	*-4%*	*-4%*	*-4%*	*-4%*	*-4%*	*-4%*	*-4%*	*-4%*	*-4%*

USD Millions

3.2.2.4. Depreciation & Amortization

For the existing PPE and intangibles assets, we used the depreciation and amortization levels of 2014. We assumed that capital expenditures would be used to increase both tangibles and intangible assets in equal proportion (i.e. 50% of CAPEX). The new assets will be depreciated (amortized) using the levels of 2014 (Table 34).

Table 34-Depreciation & Amortization Projections

Depriciation & Amortization	2014	2015	2016	2017	2018	2019	2020
Amortization of intangible assets	(92)	(92)	(92)	(92)	(92)	(92)	(92)
% Intagible assets	*-1%*	*-1%*	*-1%*	*-1%*	*-1%*	*-1%*	*-1%*
New intangible assets		*(8)*	*(16)*	*(24)*	*(32)*	*(41)*	*(49)*
% New intagible assets		*-1%*	*-1%*	*-1%*	*-1%*	*-1%*	*-1%*
Depreciation and other amortization	(2 553)	*(2 553)*	*(2 553)*	*(2 553)*	*(2 553)*	*(2 553)*	*(2 553)*
% Tangible assets	*-14%*	*-14%*	*-14%*	*-14%*	*-14%*	*-14%*	*-14%*
New PPE		*(187)*	*(376)*	*(571)*	*(770)*	*(975)*	*(1 184)*
% New PPE		*-14%*	*-14%*	*-14%*	*-14%*	*-14%*	*-14%*
Total Depriciation & Amortization	**(2 645)**	**(2 839)**	**(3 037)**	**(3 240)**	**(3 447)**	**(3 660)**	**(3 879)**

USD Millions

3.2.2.5. Investment in Working Capital

Since the level of working capital (in %sales) has not been constant over the past three years, our projections were based on the average of the past three years' ratios (cf. Appendix 24). Overall, investment in working capital will be negative (Table 35), due to the substantial impact of the deferred income taxes on the liabilities side. We assumed that the firm operates with a minimum cash balance of 1% of sales.

Table 35-Working Capital Projections

Working Capital	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assets	**12 601**	**13 025**	**12 437**	**12 196**	**12 391**	**12 706**	**13 028**	**13 359**	**13 698**
Minimum cash balance	500	500	500	633	644	660	677	694	711
%Sales	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
Inventory	3 581	3 409	3 143	3 132	3 183	3 263	3 346	3 431	3 518
Total receivables	7 041	6 954	6 651	6 587	6 693	6 863	7 037	7 215	7 398
Prepaid expenses (incl tax receivables)	1 479	1 446	1 268	1 338	1 360	1 394	1 429	1 466	1 503
Deferred income tax	--	716	875	505	513	526	539	553	567
Liabilities	**(17 337)**	**(18 519)**	**(18 320)**	**(18 262)**	**(19 278)**	**(19 718)**	**(20 169)**	**(20 631)**	**(21 106)**
Accounts payable and accrued payable	(4 451)	(4 874)	(5 127)	(4 470)	(4 542)	(4 657)	(4 775)	(4 896)	(5 021)
Income taxes payable	(371)	--	--	--	--	--	--	--	--
Other current liabilities	(2 722)	(2 726)	(2 912)	(2 766)	(2 811)	(2 882)	(2 955)	(3 030)	(3 107)
Dividends payable	(838)	(899)	(1 009)	(3 400)	(3 454)	(3 542)	(3 631)	(3 724)	(3 818)
Acrrued expenses	(3 892)	(4 034)	(3 968)	(3 678)	(3 737)	(3 832)	(3 929)	(4 029)	(4 131)
Deferred Income Tax	(5 063)	(5 986)	(5 304)	(3 948)	(4 735)	(4 806)	(4 878)	(4 953)	(5 030)
Working Capital	**(4 736)**	**(5 494)**	**(5 883)**	**(6 066)**	**(6 887)**	**(7 012)**	**(7 140)**	**(7 273)**	**(7 409)**
% Sales	*-7%*	*-8%*	*-8,8%*	*-9,6%*	*-10,7%*	*-10,6%*	*-10,6%*	*-10,5%*	*-10,4%*
Investment in WC		**(758)**	**(389)**	**(183)**	**(821)**	**(126)**	**(128)**	**(132)**	**(136)**

USD Millions

3.2.2.6. Debt Structure

In the second quarter of 2015, PepsiCo had outstanding borrowings of over $7 billion, equally divided into a revolver line and a one-year credit facility. During 2015, the firm issued senior notes as presented in table 36.

Table 36-Senior Notes Issued in 2015

Maturity	Interest	Amount
2018	NA	250
2018	1,3%	500
2020	1,9%	750
2025	2,8%	1000
2017	NA	600
2017	1,1%	650
2022	3,1%	800
2025	3,5%	700
2045	4,6%	500
Total value of notes issued		**5750**

USD Millions

Considering the value of the new notes, by the end of 2015, we expect a total value of senior notes equal to $22,616 million, and a total value of debt of $30,061 (Table 37).

Table 37-Debt Structure in 2015

Debt Structure (@2015)	Amount	Interest Rate
Revolving credit agreemei	3 723	1,8%
364-Day Facility	3 723	1,8%
Senior notes	22 616	
Total Debt	**30 061**	

*Represents a weighted average rate *USD Millions*

The level of debt should be quite stable in order to avoid significant shifts in the capital structure of the firm. Hence, we projected annual increases of debt equal to the current portion of the previous year (Table 38). In order to calculate the annual current portion of debt, we used the projections referring to the 2014 levels of debt (i.e. obtained from the 2014 annual report) and the maturities of the new issued notes in 2015 (Table 36). The payments of debt issued since 2016 are not included in our projections.

Table 38- Debt Projections

Debt Structure	2014	2015	2016	2017	2018	2019	2020
Current portion	4 096	4 093	4 349	2 754	3 410	2 381	3 131
Increase (decrease) in debt		5 750	4 093	4 349	2 754	3 410	2 381
Notes payable (1)	980	490	--	--	--	--	--
Total long-term debt	**23 821**	**25 478**	**25 222**	**26 817**	**26 161**	**27 190**	**26 440**
Total debt	**28 897**	**30 061**	**29 571**	**29 571**	**29 571**	**29 571**	**29 571**

(1) Includes commercial paper and other short-term obligations *USD Millions*

We projected the additional value of interest expenses by applying the same cost of debt of 2014, equal to approximately 3%, which is consistent with the average cost of the new senior notes.

$$Interest\ 2015 = Total\ debt\ 2015 \times \frac{Interests\ 2014}{Total\ debt\ 2014} \quad (11)$$

From 2016, the annual value of interests will be constant at $930 million since the total value of debt will be $29,571 million each year (Table 39).

Table 39-Interest Expenses

Interests Payments	2014	2015	2016	2017	2018	2019	2020
Interest on debt obligations	(909)	(946)	(930)	(930)	(930)	(930)	(930)
% Total debt	-3%	-3%	-3%	-3%	-3%	-3%	-3%

USD Millions

3.2.3. DCF - WACC

3.2.3.1. Cost of Capital

Cost of Debt

Primarily due to its size, PepsiCo has higher bond ratings than WhiteWave. Therefore, as expected, we obtained a lower cost of debt for the acquirer of 3.3% (Table 40).

Table 40-Cost of Debt

Cost of Debt	
Bond Rating	
S&P	A
Moody's	A1
Fitch	A
Spread	***1,0%***
Risk free rate	2,3%
Cost of Debt	**3,3%**

Cost of Equity

We used the CAPM approach to determine the cost of equity and obtained a value of 6.7% (Table 41). For the beta, we used the average of the unlevered betas of the peer group (0.7) and then levered it using PepsiCo's capital structure (cf. equation 3). We chose the same market risk premium and risk-free rate as for the target firm.

Table 41-Cost of Capital

WACC	
CAPM	
Beta (U)	0,72
Beta (L)	0,82
MRP	5,5%
Rf	2,3%
Cost of Equity	**6,7%**
Cost of Debt	**3,3%**
Marginal tax rate	35%
After Tax Cost of Debt	**2,1%**
Target financing structure	
Equity	81%
Debt	19%
WACC	**5,9%**

Target capital structure

We considered that the current capital structure is optimal for the firm since this level of leverage is consistent with the firm's historical levels and the level adopted for similar companies[35].

We obtained a cost of capital for the target firm of 5.9%, approximately 21% lower than the target's WACC.

3.2.3.2. FCF Projections

Table 42 summarizes the FCF projections obtained using the EBITDA, CAPEX and working capital described early in this section.

Table 42-FCF Projections

Free Cash Flow	2015	2016	2017	2018	2019	2020	TV
EBIT	**9 552**	**9 553**	**9 670**	**9 789**	**9 912**	**10 038**	**10 038**
Unusual expenses	(1 411)	--	--	--	--	--	--
Income taxes on EBIT	(2 849)	(3 343)	(3 384)	(3 426)	(3 469)	(3 513)	(3 513)
Depreciation & Amortization	2 839	3 037	3 240	3 447	3 660	3 879	3 050
EBITDA	**12 391**	**12 590**	**12 909**	**13 237**	**13 573**	**13 917**	**13 089**
EBITDA margin	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*	*18%*
Capital Expenditure	(2 716)	(2 760)	(2 830)	(2 901)	(2 975)	(3 050)	(3 050)
Investment in working capital	(183)	(821)	(126)	(128)	(132)	(136)	(136)
Free Cash Flow	**5 598**	**7 307**	**6 821**	**7 037**	**7 260**	**7 489**	**6 661**

USD Millions

3.2.3.3. Terminal Value

Perpetuity growth model

In order to calculate the terminal value, we used the FCF of 2020 since it represents a period of steady state, in which revenues have been growing at a constant rate for two periods and the levels of CAPEX and depreciation are equal (Table 43).

[35] PepsiCo's Net debt/EV is in line with the industry average (cf. Appendix 7)

Table 43-Terminal Value with Perpetuity

Gordon Growth Model	2015	2016	2017	2018	2019	2020
Free Cash Flow	**5 598**	**7 307**	**6 821**	**7 037**	**7 260**	**7 489**
Perpetuity growth rate						*2%*
Perpetuity value						**190 057**
PV FCFF	5 598	6 902	6 086	5 931	5 780	5 631
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,8*	*0,8*
Discounted cash flow	**5 598**	**6 902**	**6 086**	**5 931**	**5 780**	**148 537**

Enterprise Value	**178 833**
Outstanding Debt	31 818
Cash	10 679
Equity Value	**157 694**

USD Millions

We used a perpetuity growth rate of 2.3%, assuming that the firm would be able to grow at 90% the growth rate of the previous periods. We obtained an enterprise value of $178,833 million.

Exit multiple method

We used the EBITDA F1Y multiple of the peer group and the EBITDA of 2020. As we can see on Table 44, we obtained an enterprise value of $189,753 million.

Table 44-Terminal Value with Exit Multiple

Exit Multiple Model	2015	2016	2017	2018	2019	2020
Free Cash Flow of Assets	**5 598**	**7 307**	**6 821**	**7 037**	**7 260**	**7 489**
EBITDA Steady State						13 089
EBITDA x						15,6
Terminal Value						**204 580**
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,8*	*0,8*
Discounted cash flow	**5 598**	**6 902**	**6 086**	**5 931**	**5 780**	**159 457**

Enterprise Value	**189 753**
Outstanding Debt	31 818
Cash	10 679
Equity Value	**168 614**

USD Millions

3.2.3.4. Firm Value

Based on the DCF-WACC approach and the sensitivity analyses (Appendix 25&26), we conclude that PepsiCo has a value between $162,274 and $199,827 million.

3.2.4. APV

3.2.4.1. Base Case Scenario

In order to obtain the value of the firm ignoring the effects of debt, we discounted the FCF using the unlevered cost of capital. We replaced the levered beta by the average unlevered beta of the peer group and obtained an unlevered cost of equity of 6% (Table 45).

Table 45-APV Assumptions

APV Assumptions	
Corporate Tax	35%
Cost of Debt	3,3%
Debt discount rate	**3,8%**
Beta (u)	0,72
MRP	6%
Rf	2%
Cost of Equity (unlevered)	**6,0%**

We obtained an unlevered value for PepsiCo of $173,751 million (Table 46).

Table 46-Base Case Firm Value

Base Case Value	2015	2016	2017	2018	2019	2020	TV
EBIT	**9 552**	**9 553**	**9 670**	**9 789**	**9 912**	**10 038**	**10 038**
Unusual expenses	(1 411)	--	--	--	--	--	--
Income taxes on EBIT	(2 849)	(3 343)	(3 384)	(3 426)	(3 469)	(3 513)	(3 513)
Depreciation & Amortization	2 839	3 037	3 240	3 447	3 660	3 879	3 050
EBITDA	**12 391**	**12 590**	**12 909**	**13 237**	**13 573**	**13 917**	**13 089**
EBITDA margin	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*	*18%*
Capital Expenditure	(2 716)	(2 760)	(2 830)	(2 901)	(2 975)	(3 050)	(3 050)
Investment in working capital	(183)	(821)	(126)	(128)	(132)	(136)	(136)
Free Cash Flow	**5 598**	**7 307**	**6 821**	**7 037**	**7 260**	**7 489**	**6 661**
Perpetuity value							**184 379**
Perpetuity growth rate							2%
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,8*	*0,7*	*0,7*
Discounted cash flow	**5 598**	**6 895**	**6 073**	**5 912**	**5 755**	**5 602**	**137 916**

Base case value	**173 751**

USD Millions

3.2.4.2. Interest Tax Shields

To calculate the impact of leverage, we used a discount rate of 3.8% for the interest tax shield, which is slightly higher than the cost of debt (+0.5%). We observe that debt increases the firm's value by $20,015 million.

Table 47-PV of Interest Tax Shields

Present Value of Tax Shields	2015	2016	2017	2018	2019	2020
Interest Tax Shield	331	326	326	326	326	326
Terminal Value of Tax Shields						21 962
Discount factor	*1,0*	*1,0*	*0,9*	*0,9*	*0,9*	0,8
Present Value of Tax Shields	**331**	**314**	**302**	**291**	**280**	**18 496**

Total Present Value of Tax Shields	**20 015**

USD Millions

3.2.4.3. Bankruptcy Cost

As expected the probability of bankruptcy for PepsiCo is substantially lower than the one of WhiteWave, therefore the negative impact of leverage is almost irrelevant for PepsiCo (-0.4% vs. -4%). The expected negative effect of leverage is $695 million (Table 48).

Table 48-Expected Bankruptcy Costs

Expected Bankruptcy Costs	
Default rate	1%
Cost of bankruptcy	**40%**
Direct	5%
Indirect	35%

PV of Expected Bankruptcy cost	**(695)**

USD Millions

3.2.4.4. Firm Value

Using the APV method and considering the results of the sensitivity analysis, PepsiCo's value is between $185,840 and $202,246 million, of which approximately 10% is the result of leverage (cf. Appendix 27).

Table 49-Firm Value Using APV

APV Valuation	Value	Impact
Base case value	173 751	90%
Side effects: interest tax shields	20 015	10%
Expected Bankruptcy Costs	(695)	-0,4%

Adjusted Present Value	**193 071**

USD Millions

3.2.5. Acquirer Valuation Conclusion

Using the three methods described earlier, the target firm has a value between $178,833 and $196,778 million, which is 7% to 17% above the market enterprise value (Table 50).

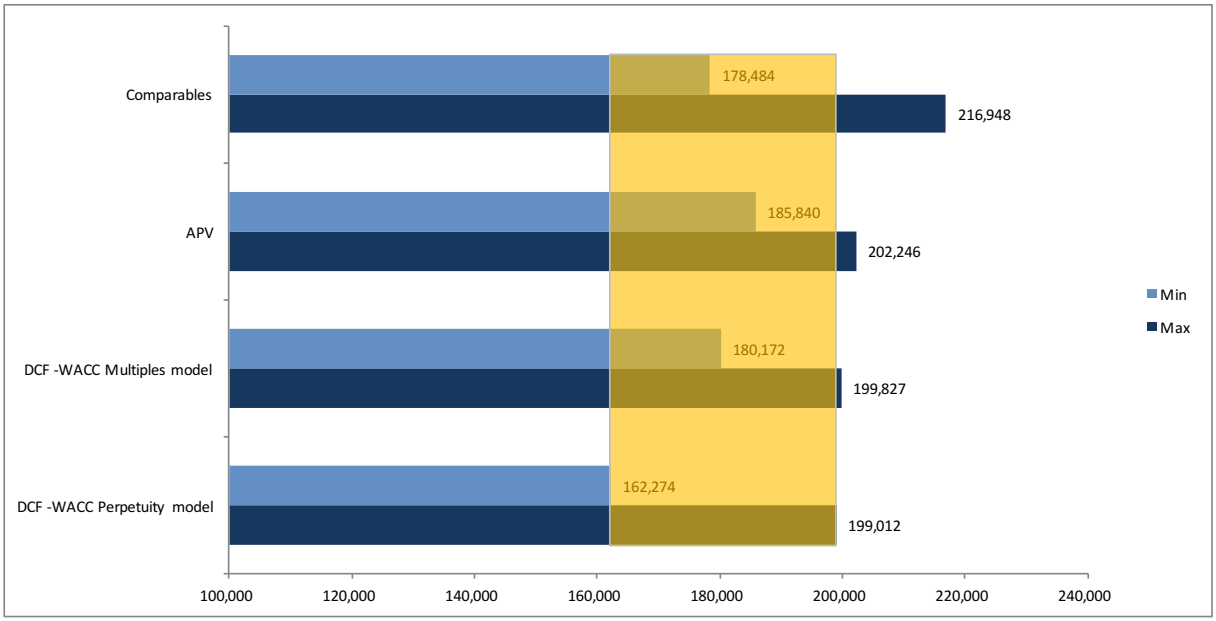
Table 50-PepsiCo's Value Range

Firm Value range	Value	Min	Max
DCF -WACC Perpetuity model	178 833	162 274	199 012
DCF -WACC Multiples model	189 753	180 172	199 827
APV	193 071	185 840	202 246
Comparables	196 778	178 484	216 948
Market Enterprise Value (05/11/15)	167 870		

USD Millions

Figure 9 presents the global valuation range including the values of the sensitivity analysis for each method.

Figure 9-PepsiCo's Value Range



4. Post-Acquisition Analysis

The primary motive for the acquisition is to benefit from operational synergies mostly due to economies of scale and cost reduction, which are frequent effects of horizontal mergers. Given the substantially higher size of PepsiCo and industry expertise, synergies will be a result of both cost savings and increase in growth opportunities for the target firm. Therefore, in order to calculate the value of synergies, we will analyze the impact of this acquisition on WhiteWave's level of costs and revenues.

Considering that all synergies will occur due to improvements in the operations of the target firm, we will use WhiteWave's cost of capital as the discount rate of the firm's post-acquisition cash flows. The total value of synergies will be the difference between the values of WhiteWave pre-acquisition and post-acquisition. Using this approach, we are able to differentiate the value of the different sources of synergies and to exclude the impact of differences in the cost of capital.

4.1. Cost Synergies

Once acquired by PepsiCo, WhiteWave will benefit from increased economies of scale that will allow the firm to negotiate in better terms with third parties and consequently to decrease its COGS. We assumed that the target will be able to reduce its COGS level by 0.5% instead of 0.4%, starting in 2016 (cf. Appendix 28). The level of COGS will still be higher than that of PepsiCo because, even with increased economies of scale, the raw materials used to produce WhiteWave's products are more expensive than those used for most of PepsiCo's products.

Moreover, we considered that the level of SGA will progressively decrease by 0.5% annually starting in 2016, as a result of duplication of work. In 2020, the SGA level will be close to the level of 2014, prior to the impact of the acquisitions.

Cost savings alone, will contribute to an additional average annual EBITDA of approximately $27 million during the forecast period. The total value of cost synergies varies between $653 and $906 million (Table 51).

Table 51-Cost Synergies

	Value of Combined Firm	Value of combined firm with synergies	Value of Cost Synergies
Revenues	430 512	430 512	
Operating Income (EBIT)	60 913	63 631	
PV of FCFF	36 547	36 628	
Exit multiple method			
PV Terminal Value	162 840	163 412	
Equity Value	**176 721**	**177 374**	**653**
Perpetuity method			
PV Terminal Value	151 191	152 017	
Equity Value	**165 072**	**165 978**	**906**

4.2. Growth Synergies

The combined firm will benefit from a broader innovative portfolio of food brands in key categories, from tasty snacks to organic dairy. Moreover, PepsiCo's size and experience in the industry aligned with WhiteWave's attractive product line, will generate a platform for sustainable growth. As part of PepsiCo, WhiteWave will improve its R&D and manufacturing capabilities, and consequently generate a higher ROIC.

WhiteWave will benefit from PepsiCo's financial resources and management skills in order to improve its ability to generate higher returns on investments. Hence, we assumed that from 2019, WhiteWave will be able to improve its ROIC and reach the level of PepsiCo (18%).

We considered this impact only from 2019 because until then, we believed that WhiteWave alone, would have been able to grow at the projected annual growth rates, which are already considerably high. Therefore, the effects of the acquisition are more evident in 2019, when the firm's capacity to grow is highly dependent on its ability to generate returns on capital. Equation 12 represents the annual growth of the last two years projected (cf. Appendix 29).

$$g(19/20) = GDP + \pi + ROIC\ (PepsiCo) \times Reinvestment\ Rate \quad (12)$$

Through attractive investments, launches of new products and improved financial effectiveness, the combined company will generate additional $207 to $256 million, from increased revenues (Table 52).

Table 52-Growth Synergies

	Value of Combined Firm	Value of combined firm with synergies	Value of growth synergies
Revenues	430 512	430 704	
Operating Income (EBIT)	60 913	63 360	
PV of FCFF	36 547	36 556	
Exit multiple method			
PV Terminal Value	162 840	163 037	
Equity Value	**176 721**	**176 928**	**207**
Perpetuity method			
PV Terminal Value	151 191	151 438	
Equity Value	**165 072**	**165 328**	**256**

USD Millions

4.3. Total Value of Synergies

By combining the two effects in the same projections, we obtained a new equity value of WhiteWave between $8,560 and $8,980 million (cf. Appendix 30, 31&32).

Table 53-EBITDA Projections of WhiteWave Post-Acquisition

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 326	5 705
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	***7,0%***	***7,1%***
Cost of Revenue	(1 486)	(1 635)	(2 283)	(2 521)	(2 799)	(2 994)	(3 205)	(3 413)	(3 637)
%Sales	*-64,9%*	*-64,3%*	*-66,4%*	*-65,4%*	***-65,0%***	***-64,7%***	***-64,4%***	***-64,1%***	***-63,8%***
Gross Profit	**804**	**908**	**1 153**	**1 335**	**1 504**	**1 632**	**1 772**	**1 913**	**2 067**
Gross Margin	*35%*	*36%*	*34%*	*35%*	*35%*	*35%*	*36%*	*36%*	*36%*
SGA Costs	(571)	(627)	(751)	(897)	(942)	(1 033)	(1 106)	(1 178)	(1 255)
%Sales	*-24,9%*	*-24,7%*	*-21,8%*	*-23,3%*	**-22,4%**	**-22,3%**	**-22,2%**	**-22,1%**	**-22,0%**
Research & Development	(12)	(13)	(16)	(18)	(20)	(21)	(23)	(24)	(26)
Asset disposal and exit costs	--	(24)	1	--	--	--	--	--	--
Related Party Income	36	--	--	--	--	--	--	--	--
EBITDA	**257**	**243**	**388**	**420**	**543**	**578**	**643**	**711**	**786**
EBITDA Margin	*11%*	*10%*	*11%*	*11%*	*13%*	*12%*	*13%*	*13%*	*14%*
EBITDA growth		*-6%*	*60%*	*8%*	*29%*	*6%*	*11%*	*11%*	*11%*

USD Millions

Overall the transaction is expected to generate synergies between $873 million and $1,182 million depending on the terminal value method used (Table 54). As part of PepsiCo, WhiteWave's operations are expected to generate annual operating income in excess of $31million[36] over the 5-year period beginning in 2015.

Cost reduction is the primary source of synergies, accounting for approximately 76% of the total value.

Table 54-Total Value of Synergies

	Value of Combined Firm	Value of combined firm with synergies	Value of synergies
Revenues	430 512	430 704	
Operating Income (EBIT)	60 913	63 683	
PV of FCFF	36 547	36 638	
Exit multiple method			
PV Terminal Value	162 840	163 623	
Equity Value	**176 721**	**177 594**	**873**
Perpetuity method			
PV Terminal Value	151 191	152 283	
Equity Value	**165 072**	**166 254**	**1 182**

[36] Average of the 5-year additional EBIT value

5. Deal Analysis

5.1. Target Price

Using the DCF method, with the two terminal values, along with the APV approach, the equity value of WhiteWave with synergies is between $8,560 and $8,980 million (cf. Appendix 31&32). Therefore, the value per share of the target for PepsiCo is between $48.7 and $51.1.

Table 55-Acquisition Price

Acquisition Price	
Market Data at 05/11/15	
Market Capitalization	7 259
Share price	41,64
Shares Outstanding	175,759
Standalone target value	
Equity value with DCF-Perpetuity	7 378
Value per share	41,98
Equity value with DCF-Exit Multiple	8 107
Value per share	46,13
Synergies	
Equity value with DCF-Perpetuity	1 182
Synergies premium per share	6,73
Equity value with DCF-Exit Multiple	873
Synergies premium per share	4,97
Post-aquisition target value	
Equity value with DCF-Perpetuity	8 560
Value per share	48,70
Equity value with DCF-Exit Multiple	8 980
Value per share	51,09
Acquisition price per share	46,61
Premium over market price	12%
Maximum Price	51,09
	USD

We recommend PepsiCo to offer a price equal to the market price of WhiteWave plus a premium of 12%, which includes the value of the synergies obtained with the exit multiple terminal value (Table 55). This value of synergies is the one we suggest as the premium offered, since it is the lowest value of synergies we obtained and therefore, gives PepsiCo a higher margin for negotiation.

According to our valuation, PepsiCo should offer at most $51.1 per share since this is the maximum value of the target for the acquirer. Paying a higher price would be assuming that the

acquisition could generate a higher level of synergies than those projected, which could be unrealistic.

Hence, we recommend that PepsiCo should offer to buy WhiteWave's shares for $46.61 each, which is a total value of $8,192 million, including a 12% premium over the market value at 05/11/2015.

5.2. Transaction Costs

During mergers and acquisitions, firms incur in costs associated with investment banks fees, lawyers, consultancy firms and other expenses that might be necessary to realize the transaction. In order to obtain an approximation of the transaction fee, which is the most significant cost, we will use the Lehman Scale[37]. Using this formula and considering a purchasing price of $8,192 million, the transaction fee will be around $182 million.

Table 56-Transaction Costs

Amount	Fee	Cost
1 000	5%	50
1 000	4%	40
1 000	3%	30
1 000	2%	20
4 193	1%	42
Total Merge Cost		**182**

USD Millions

Regarding integration costs, we believe that the costs related to employee's compensation will be insignificant therefore we didn't include them.

The total acquisition cost of WhiteWave will then be $8,375 million.

5.3. Form of Payment

As covered in the literature review, cash offer is the most successful method of acquisition, especially when the acquirer is able to offer a price with a premium above the market value. Moreover, according to our analysis, using all the valuation methods, PepsiCo's shares are undervalued, therefore a stock offer is not the best option as it would probably result in a

[37] The Lehman Formula was created by Lehman Brothers in the 1970s to define the compensation of a bank for its underwriting and capital raising services. Lehman Formula: 5% of the first $1 million; 4% of the second $1 million; 3% of the third $1 million; and so on, with a 1% charge on everything above $4 million. (Wikipedia, 2015)

reduction of the firm's market value. Furthermore, PepsiCo has been generating high levels of excess cash ($8,226 million at the end of 2014) that are enough to cover the acquisition price.

Starting in 2016, the combined company (i.e. including the acquisition price) is expected to generate additional EBIT of $37 million on average, annually over the forecast period. The full financial statements of the combined firm are presented in appendix 33, 34 and 35.

We recommend PepsiCo to make an offer to buy WhiteWave's shares through a tender offer, for a share price of $46.6 in cash consideration. This price consists of the target's market share price plus a 12% premium to cover for the synergies and to increase the probability of a successful deal.

6. Conclusion

In this work we analyzed the potential acquisition of WhiteWave by PepsiCo, in order to obtain a combined firm with the established presence of the target in the growing segments of the industry and the acquirer's capacity of production, scale and financial resources. Although WhiteWave has gain its independency recently, we believe that PepsiCo will increase the firm's potential, benefiting its shareholders in a way that Dean Foods couldn't given its high debt level constraints.

Using the DCF method, the intrinsic enterprise value of the target is $8,905 million with the perpetuity model and $9,634 million with the exit multiple model. With the APV approach, the value is $9,149 million, of which approximately 16% is the effect of debt. With the exception of the comparables approach, the results of our valuation suggest that the target's market price is undervalued between 1% to 10%, indicating that, in fact, WhiteWave is a potential takeover target.

According to our analysis, PepsiCo has a value between $178,833 and $196,778 million. Using the APV method, the acquirer has a value of $193,071 million of which approximately 10% is the effect of debt. Overall, our results suggest that PepsiCo is undervalued in the market between 7% and 17%, therefore the firm should not opt to finance transactions with stock.

Once acquired by PepsiCo, WhiteWave will benefit from increased economies of scale that will contribute to an average annual cost saving of approximately $27 million during the forecast period. The total value of cost synergies will vary between $653 and $906 million. After the acquisition, WhiteWave will also improve its ability to generate returns on investments, which will translate into additional operating income of $8 and $17 million in 2019 and 2010 respectively.

Overall, the transaction is expected to generate synergies between $873 million and $1,182 million, depending on the method of terminal value used. Hence, the equity value of WhiteWave after the acquisition would be between $8,560 and $8,980 million. Cost savings are the primary source of synergies, representing approximately 76% of the total value. This is consistent with our expectations since economies of scale and cost reduction are the primary effect of horizontal mergers.

We recommend PepsiCo to make an offer to acquire WhiteWave's shares for a price per share of $46.61 in cash consideration. The offered price would represent a 12% percent premium based on WhiteWave's unaffected share prices at November 5, 2015.

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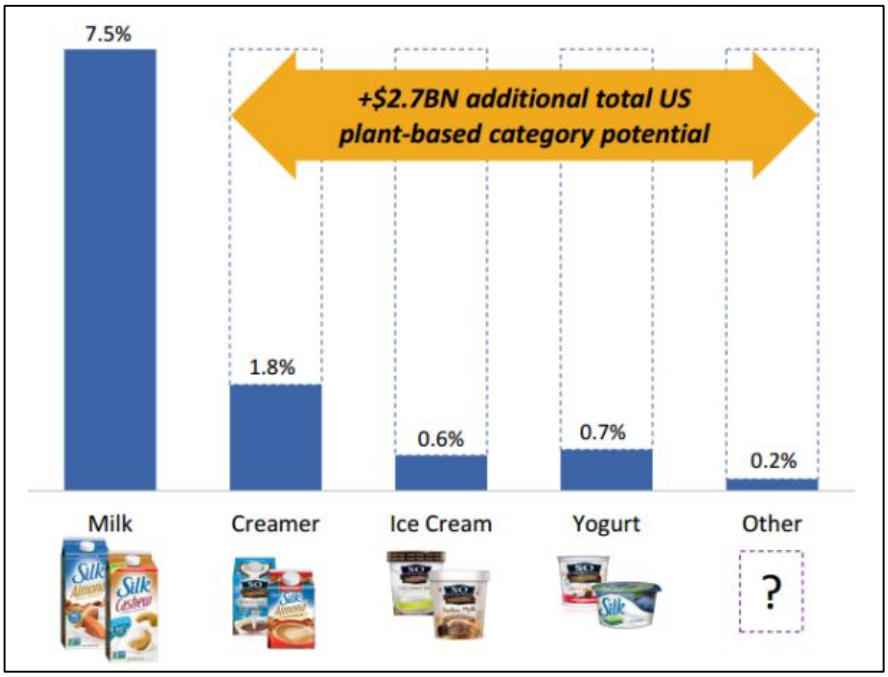
Appendices

Appendix 1 - Plant-Based Share % of US Retail Category Sales



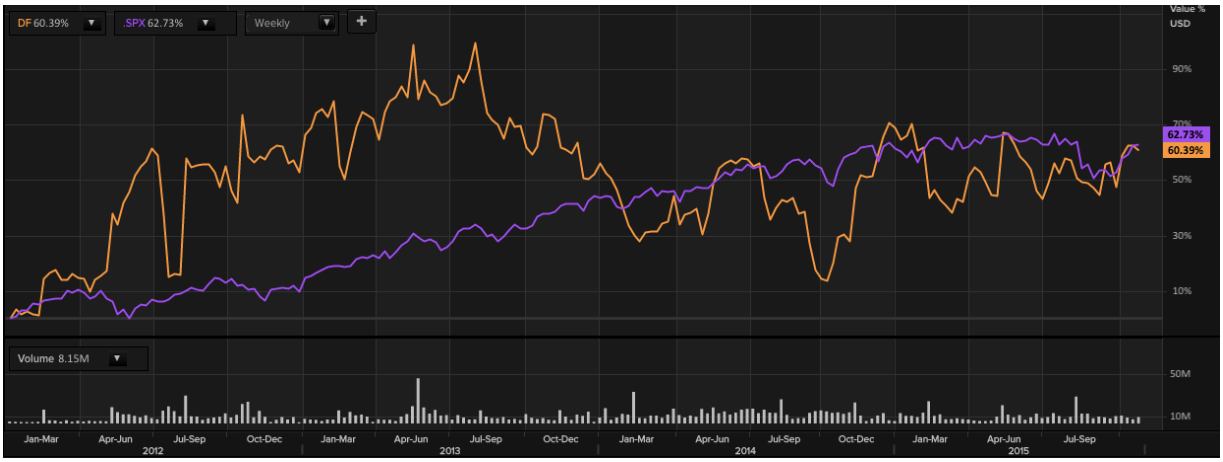
foodnavigator

Appendix 2 - Common M&A Strategies for Food Manufacturers

Rationale	***Description***
Product or category adjacency	Company acquires a business that sells a product, service, or brand related to, but not identical to, one of its own business categories.
Geographic adjacency	Expansion into a new location rather than a new sector or category. May be US companies wanting to expand into emerging markets or international players wishing to move into the US.
Consolidation	Takes advantage of synergies and economies of scale, usually between two companies with similar businesses. Also increases clout with large food retailers.
Innovation acquisition	Large companies purchase smaller enterprises with proven innovation in order to realize immediate benefits.
Accessing capabilities	Company acquires a target that either leverages or builds on its own capabilities system. It may also sell a unit that does not benefit from these capabilities.

(PwC, 2015)

Appendix 3 - Dean Foods's Weekly Stock Price (Jan2012-Nov2015)



purple: S&P 500; orange: Dean Foods

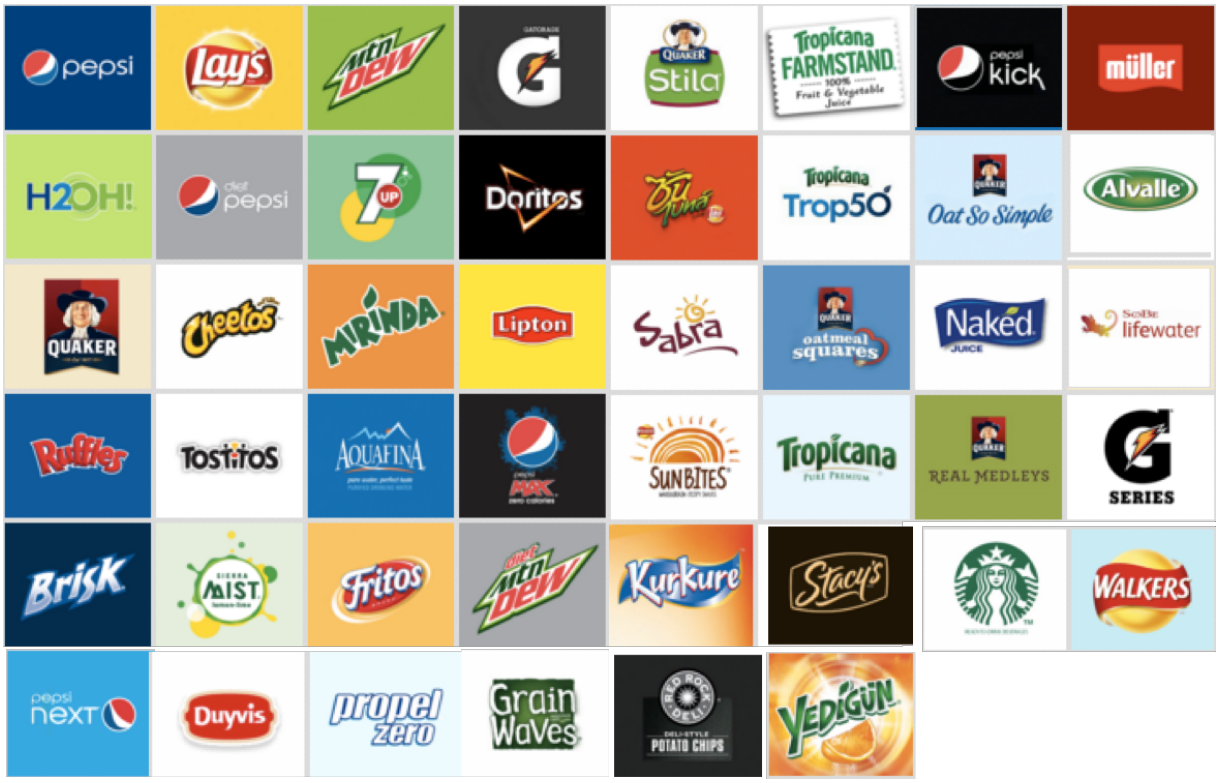
Appendix 4 - Peer Group of the Target Firm (WhiteWave)

Company Name	Market Cap	Enterprise Value	Sales TTM	Price/ Cash Flow TTM	Price/ Book Value	Net Debt/ EV	Net Debt/ Equity	Net Debt/ EBITDA FY
The Whitewave Foods Company	***7 653***	***9 179***	***3 603***	***23***	***7,5***	***0,2***	***1,3***	***3,1***
The Hain Celestial Group, Inc.	5 491	6 168	2 689	25	3,8	0,1	0,4	1,6
General Mills, Inc.	34 032	43 418	17 570	14	6,9	0,2	1,8	2,6
Danone	42 522	49 879	24 589	15	2,7	0,1	0,5	1,8
Kellogg Company	24 676	31 839	14 207	17	9,2	0,2	2,7	2,9
Campbell Soup Company	15 331	19 125	8 082	13	11,1	0,2	2,8	2,4
J M Smucker Co	14 252	20 102	6 321	15	1,9	0,3	0,8	3,4
Mondelez International, Inc.	74 974	92 355	32 590	26	2,7	0,2	0,7	3,5
Hershey Co	20 932	23 032	7 488	20	17,6	0,1	1,7	1,2
Mean	**26 651**	**32 789**	**13 015**	**19**	**7,0**	**0,2**	**1,4**	**2,5**
Median	20 932	23 032	8 082	17	6,9	0,2	1,3	2,6
High	74 974	92 355	32 590	26	17,6	0,3	2,8	3,5
Low	5 491	6 168	2 689	13	1,9	0,1	0,4	1,2

Appendix 5 - PepsiCo, WhiteWave and S&P 500 Daily Total Return (Oct2012-Nov2015)

purple: WhiteWave; green: PepsiCo and orange: S&P 500

Appendix 6 - PepsiCo's Brands



Appendix 7 - Peer Group of the Acquirer Firm (PepsiCo)

Company Name	Market Cap	Enterprise Value	Sales TTM	Price/ Cash Flow TTM	Price/ Book Value	Net Debt/ EV	Net Debt/ Equity	Net Debt/ EBITDA FY1
PepsiCo, Inc.	***149 225***	***170 548***	***64 419***	***16,5***	***9,9***	***0,1***	***1,6***	***1,7***
The Coca-Cola Company	186 136	209 766	45 199	16,7	6,7	0,1	0,9	2
Dr Pepper Snapple Group, Inc.	16 980	19 408	6 245	17,2	6,8	0,1	1,1	2
Kellogg Company	25 352	32 515	14 207	17,5	9,2	0,2	2,7	3
Nestle Ltd.	257 583	278 283	97 880	16,6	3,5	0,1	0,3	1,0
Mean	**127 055**	**142 104**	**45 590**	**16,9**	**7,2**	**0,1**	**1,3**	**1,8**
Median	149 225	170 548	45 199	17	7	0,1	1,1	1,7
High	257 583	278 283	97 880	17	10	0,2	2,7	2,9
Low	16 980	19 408	6 245	17	3	0,1	0,3	1,0

Appendix 8 - WhiteWave's Financial Data

Inputs		(Millions)
Share Price	$	41,6
Shares Outstanding		175 759
Net Debt		1 582
Market Cap		7 259
EV		8 786
Revenue (2014)		3 437
Revenue (2016)		4 302
EBITDA (2016)		511
EBITDA (2014)		388
EBIT (2014)		267
EPS (2014)		0,8
ROE		13%
Sales/Share		2%
After Tax ROIC (mean)		8,6%
Reinvestment Rate (actual)		13,8%

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Appendix 9 - EBITDA Multiple Sensitivity Analysis (WhiteWave)

EBITDA 2016 (△5%) \ EBITDA x (△10%)	15,3	16,0	**16,8**	17,7	18,6
463	7 076	7 430	7 801	8 191	8 601
487	7 430	7 801	8 191	8 601	9 031
511	7 801	8 191	**8 601**	9 031	9 482
536	8 191	8 601	9 031	9 482	9 956
563	8 601	9 031	9 482	9 956	10 454

USD Millions

Appendix 10 - Forecasted Income Statement (WhiteWave)

Income Statement	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Revenue	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 265	5 575
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	*5,8%*	*5,9%*
Cost of Revenue	(1 486)	(1 635)	(2 283)	(2 521)	(2 801)	(3 000)	(3 215)	(3 387)	(3 572)
%Sales	*-64,9%*	*-64,3%*	*-66,4%*	*-65,4%*	*-65,1%*	*-64,9%*	*-64,6%*	*-64,3%*	*-64,1%*
Gross Profit	**804**	**908**	**1 153**	**1 335**	**1 501**	**1 626**	**1 762**	**1 878**	**2 002**
Gross Margin	*35%*	*36%*	*34%*	*35%*	*35%*	*35%*	*35%*	*36%*	*36%*
SGA Costs	(571)	(627)	(751)	(897)	(971)	(1 043)	(1 123)	(1 188)	(1 258)
%Sales	*-24,9%*	*-24,7%*	*-21,8%*	*-23,3%*	-22,6%	*-22,6%*	*-22,6%*	*-22,6%*	*-22,6%*
Research & Development	(12)	(13)	(16)	(18)	(20)	(21)	(23)	(24)	(25)
Asset disposal and exit costs	--	(24)	1	--	--	--	--	--	--
Related Party Income	36	--	--	--	--	--	--	--	--
EBITDA	**257**	**243**	**388**	**420**	**511**	**561**	**617**	**666**	**720**
EBITDA Margin	*11%*	*10%*	*11%*	*11%*	*12%*	*12%*	*12%*	*13%*	*13%*
EBITDA growth		*-6%*	*60%*	*8%*	*22%*	*10%*	*10%*	*8%*	*8%*
Depriciation & Amortization	(77)	(85)	(121)	(144)	(158)	(173)	(190)	(207)	(225)
Operating Income	**180**	**158**	**267**	**277**	**353**	**388**	**427**	**459**	**495**
Operating Margin	*8%*	*6%*	*8%*	*7%*	*8%*	*8%*	*9%*	*9%*	*9%*
EBIT growth			*69%*	*4%*	*28%*	*10%*	*10%*	*7%*	*8%*
Financial Result	(10)	(18)	(37)	(123)	(113)	(113)	(66)	(66)	(79)
Net losses on interest rate swaps	(1)	4	(5)	(2)	(2)	(2)	(2)	(2)	(2)
Net Income Before Taxes (EBT)	**169**	**144**	**224**	**152**	**238**	**273**	**360**	**392**	**414**
Loss in equity method investments	2	--	(6)	(7)	--	--	--	--	--
Income Tax Expense	(57)	(44)	(78)	(51)	(83)	(96)	(126)	(137)	(145)
Net Income After Taxes	**115**	**100**	**140**	**94**	**155**	**178**	**234**	**255**	**269**
Net margin	*5%*	*4%*	*4%*	*2%*	*4%*	*4%*	*5%*	*5%*	*5%*

USD Millions

Appendix 11 - Forecasted Balance Sheet (WhiteWave)

Balance Sheet	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fixed Assets									
Property/Plant/Equipment, Total - Net	625	660	993	1 068	1 144	1 219	1 293	1 365	1 433
Long Term Investments	--	--	43	43	43	43	43	43	43
Intangible assets	374	376	690	1 009	989	969	950	930	910
Goodwill	766	772	1 068	1 444	1 444	1 444	1 444	1 444	1 444
Other Long Term Assets	21	19	39	39	39	39	39	39	39
Total Fixed Assets	**1 785**	**1 827**	**2 834**	**3 604**	**3 659**	**3 715**	**3 769**	**3 821**	**3 869**
Working Capital									
Assets									
Minumum Cash Balance	50	50	50	56	63	67	72	77	81
Accounts Receivable	124	147	207	216	241	259	279	295	313
Total Inventory	147	159	216	238	265	283	304	320	337
Prepaid Expenses and other current assets	22	23	36	56	63	68	73	77	82
Deferred Income Tax	21	27	30	34	40	42	45	48	51
Liabilities									
Accounts payable and accrued expenses	(277)	(338)	(442)	(488)	(543)	(581)	(623)	(656)	(692)
Income Taxes Payable	(12)	(14)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other current liabilities	(19)	(19)	(27)	(31)	(34)	(37)	(40)	(42)	(44)
Working Capital	**56**	**34**	**69**	**81**	**94**	**101**	**110**	**118**	**126**
Total Capital Employed	**1 841**	**1 861**	**2 902**	**3 685**	**3 754**	**3 816**	**3 879**	**3 939**	**3 995**
Net Debt									
Cash & Equivalents	(19)	(51)	(0)	(3)	(87)	(140)	(245)	(373)	(518)
Total Long Term Debt	766	648	1 496	2 184	2 123	2 059	1 994	1 927	1 859
Deferred Income Tax	218	238	267	267	267	267	267	267	267
Other Long Term Liabilities	77	50	42	42	42	42	42	42	42
Current portion	15	15	21	24	82	83	83	83	83
Total Net Debt	**1 056**	**899**	**1 826**	**2 514**	**2 427**	**2 311**	**2 141**	**1 946**	**1 734**
Shareholders Equity									
Common Stock, $0.01 par value	2	2	2	2	2	2	2	2	2
Additional Paid-In Capital	793	851	879	879	879	879	879	879	879
Unrealized Gain (Loss)	(0)	0	1	1	1	1	1	1	1
Retained Earnings (Accumulated Deficit)	18	117	257	352	507	684	918	1 173	1 442
Translation Ajdustments	(26)	(8)	(60)	(60)	(60)	(60)	(60)	(60)	(60)
Minimum Pension Liability Adjustment	(2)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Total Equity	**785**	**961**	**1 077**	**1 171**	**1 326**	**1 504**	**1 738**	**1 992**	**2 261**
Total Sources of Capital	**1 841**	**1 861**	**2 902**	**3 685**	**3 753**	**3 815**	**3 879**	**3 939**	**3 995**

USD Millions

Appendix 12 - Forecasted Cash Flow Statement (WhiteWave)

CASH FLOW STATEMENT	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash from Operating Activities									
Net Income				94	155	178	234	255	269
Depreciation and amortization				144	158	173	190	207	225
Investment in Working Capital				(13)	(13)	(7)	(9)	(8)	(8)
Cash from Operating Activities				**226**	**300**	**344**	**414**	**453**	**486**
Cash from Investing Activities									
CAPEX (PPE)				(199)	(214)	(229)	(244)	(259)	(273)
Acquisition of Business				(715)	--	--	--	--	--
Cash from Investing Activities				**(914)**	**(214)**	**(229)**	**(244)**	**(259)**	**(273)**
Cash from Financing Activities									
Proceeds of debt				691	--	--	--	--	--
Increase in capital lease obligations				22	21	19	18	16	15
Current portion				(21)	(24)	(82)	(83)	(83)	(83)
Cash from Financing Activities				**692**	**(3)**	**(62)**	**(65)**	**(67)**	**(68)**
Net Change in Cash		(32)	(51)	4	83	53	105	128	144
Net Cash - Beginning Balance		(19)	(51)	(0)	3	87	140	245	373
Net Cash - Ending Balance	**(19)**	**(51)**	**(0)**	**3**	**87**	**140**	**245**	**373**	**518**

USD Millions

Appendix 13 - Acquired Assets Assumptions (WhiteWave)

	Acquisition Price	Increase in Tangible Assets	% Price	Amortization Amount (15 years)	% Gross amount	Increase in Goodwill
2014 acquisitions						
Earthbound	609	256	42%	105	41%	353
SoDelicious	197	88	45%	30	34%	109
2015 acquisitions						
EIEIO	40	22	54%	10	47%	18
Vega	550	**259**	**47%**	**105**	**41%**	291
Wallaby	125	**59**	**47%**	**24**	**41%**	66

**The assumptions made are highlighted*

USD Millions

Appendix 14 - Working Capital Assumptions (WhiteWave)

Working Capital Assumptions	2012	2013	2014	2015	2016	2017	2018	2019	2020
Current Assets									
Days sales outstanding	20	21	20	20	20	20	20	20	20
Days inventory held	36	35	34	34	34	34	34	34	34
Prepaid expenses (% sales)	1%	1%	1%	1%	1%	1%	1%	1%	1%
Deferals (% sales)	1%	1%	1%	1%	1%	1%	1%	1%	1%
Current Payables									
Days payable outstanding	(68)	(76)	(71)	(71)	(71)	(71)	(71)	(71)	(71)
State (% sales)	-1%	-1%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities (%sales)	1%	1%	1%	1%	1%	1%	1%	1%	1%

USD Millions

Appendix 15 - Macroeconomic Assumptions

Macroeconomic assumptions (%)	2015	2016	2017	2018	2019	2020
GDP - Growth rate	**1,9**	**2,7**	**2,7**	**2,6**	**2,6**	**2,6**
% change	-43,0	37,0	2,0	-3,0	-1,0	0,0
US GDP	2,0	2,8	2,8	2,7	2,7	2,7
Euro area GDP	1,5	2,1	2,1	2,0	2,0	2,0
Still drinks growth	3,0	3,0	3,0	3,0	3,0	3,0
Inflation rate	**1,4**	**1,8**	**1,8**	**1,9**	**2,0**	**2,1**
% change	19,6	22,5	5,0	5,0	5,0	5,0
US inflation rate	1,6	1,8	1,9	2,0	2,1	2,2
Europe inflation rate	0,5	1,3	1,4	1,4	1,5	1,6
Growth rate	**3,4**	**4,4**	**4,6**	**4,6**	**4,6**	**4,7**

Source: OECD

Appendix 16 - Sensitivity Analysis of The Firm Value: DCF - Perpetuity (WhiteWave)

		Perpetuity growth rate (△5%)				
		4,3%	4,5%	**4,7%**	4,9%	5,2%
WACC (△5%	6,8%	10 033	10 927	12 064	13 557	15 599
	7,1%	8 777	9 455	10 296	11 365	12 768
	7,5%	7 744	8 268	**8 905**	9 695	10 700
	7,8%	6 882	7 293	7 785	8 383	9 126
	8,2%	6 151	6 478	6 864	7 326	7 888

USD Millions

Appendix 17 - Sensitivity Analysis of The Firm Value: DCF - Exit Multiple (WhiteWave)

WACC (△5%	EBITDA x (△5%)				
	15	16	**17**	18	19
6,8%	9 083	9 505	9 948	10 414	10 903
7,1%	8 941	9 357	9 794	10 252	10 733
7,5%	8 796	9 205	**9 634**	10 085	10 558
7,8%	8 646	9 048	9 470	9 913	10 378
8,2%	8 493	8 887	9 302	9 737	10 193

USD Millions

Appendix 18 - Sensitivity Analysis of The Firm Value Using APV (WhiteWave)

Perpetuity Growth Rate (△5%)	Debt Discount Rate (△5%)				
	5,4%	5,7%	**6,0%**	6,3%	6,6%
4,3%	8 527	8 153	7 886	7 687	7 532
4,5%	9 329	8 798	8 445	8 193	8 005
4,7%	10 486	9 651	**9 149**	8 816	8 578
4,9%	12 443	10 865	10 076	9 603	9 288
5,2%	17 326	12 872	11 384	10 640	10 193

USD Millions

Appendix 19 - PepsiCo's Financial Data

Inputs	(Millions)
Share Price	$ 100,72
Shares Outstanding	1 457
Net Debt	21 139
Market Cap	146 588
EV	167 870
Revenue (2014)	66 683
Revenue (2016)	64 362
EBITDA (2016)	12 590
EBITDA (2014)	12 566
EBIT (2014)	9 921
EPS (2014)	4
EPS (2015)	3
ROE	28%
Sales/Share	46
After Tax ROIC (actual)	21,0%
Reinvestment Rate (actual)	12,8%

Source: ThomsonOne @ 05/11/15

Appendix 20 - EBITDA Multiple Sensitivity Analysis (PepsiCo)

		EBITDA x (△5%)				
		14	15	**16**	16	17
EBITDA 2016 (△5%)	11 419	161 890	169 985	178 484	187 408	196 778
	11 990	169 985	178 484	187 408	196 778	206 617
	12 590	178 484	187 408	**196 778**	206 617	216 948
	13 219	187 408	196 778	206 617	216 948	227 796
	13 880	196 778	206 617	216 948	227 796	239 185

USD Millions

Appendix 21 - Forecasted Income Statement (PepsiCo)

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	65 492	66 415	66 683	63 349	64 362	65 996	67 670	69 387	71 148
Annual growth	*-0,6%*	*1,4%*	*0,4%*	*-5,0%*	*1,6%*	*2,5%*	*2,5%*	*2,5%*	*2,5%*
Cost of Revenue	(31 291)	(31 243)	(30 884)	(28 886)	(29 348)	(30 093)	(30 857)	(31 640)	(32 442)
%Sales	*-48%*	*-47%*	*-46%*	*-45,6%*	*-45,6%*	*-45,6%*	*-45,6%*	*-45,6%*	*-45,6%*
△ Cost of Revenue		*-1,5%*	*-1,5%*	*-1,5%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Gross Profit	**34 201**	**35 172**	**35 799**	**34 463**	**35 014**	**35 903**	**36 814**	**37 748**	**38 706**
Gross Margin	*52%*	*53%*	*54%*	*54%*	*54%*	*54%*	*54%*	*54%*	*54%*
SGA Costs	(21 986)	(21 754)	(22 238)	(21 126)	(21 464)	(22 009)	(22 567)	(23 140)	(23 727)
%Sales	*-34%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*	*-33%*
Research & Development	--	(665)	(718)	(682)	(693)	(711)	(729)	(747)	(766)
Operating Interests	--	(228)	(277)	(263)	(267)	(274)	(281)	(288)	(296)
EBITDA	**12 215**	**12 525**	**12 566**	**12 391**	**12 590**	**12 909**	**13 237**	**13 573**	**13 917**
EBITDA Margin	*19%*	*19%*	*19%*	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*
EBITDA growth		*3%*	*0%*	*-1,4%*	*1,6%*	*2,5%*	*2,5%*	*2,5%*	*2,5%*
Depriciation & Amortization	(2 689)	(2 663)	(2 645)	(2 839)	(3 037)	(3 240)	(3 447)	(3 660)	(3 879)
Operating Income	**9 526**	**9 862**	**9 921**	**9 552**	**9 553**	**9 670**	**9 789**	**9 912**	**10 038**
Operating Margin	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*14%*	*14%*	*14%*
EBIT growth		*4%*	*1%*	*-3,7%*	*0,0%*	*1,2%*	*1,2%*	*1,3%*	*1,3%*
Financial Result	(808)	(814)	(824)	(869)	(832)	(818)	(805)	(790)	(774)
Net Income Before Taxes (EBT)	**8 718**	**9 048**	**9 097**	**8 683**	**8 721**	**8 851**	**8 984**	**9 122**	**9 264**
Unusual expenses	(295)	(173)	(418)	(1 411)	--	--	--	--	--
Income Tax Expense	(2 090)	(2 104)	(2 199)	(2 538)	(3 044)	(3 089)	(3 136)	(3 184)	(3 233)
Net Income After Taxes	**6 333**	**6 771**	**6 480**	**4 734**	**5 677**	**5 762**	**5 849**	**5 938**	**6 031**
Net margin	*10%*	*10%*	*10%*	*7%*	*9%*	*9%*	*9%*	*9%*	*8%*
Diluted Weighted Average Shares	1 557	1 560	1 527	1 527	1 527	1 527	1 527	1 527	1 527
Diluted EPS Including ExtraOrd Items	4,1	4,3	4,2	3,1	3,7	3,8	3,8	3,9	3,9

USD Millions

Appendix 22 - Forecasted Balance Sheet (PepsiCo)

Balance Sheet	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fixed Assets									
Property/Plant/Equipment, Total - Net	19 136	18 575	17 244	15 862	14 313	12 604	10 731	8 691	6 479
Long Term Investments	2 351	2 623	2 689	2 689	2 689	2 689	2 689	2 689	2 689
Intangible assets	16 525	16 039	14 088	15 346	16 618	17 917	19 244	20 599	21 982
Goodwill	16 971	16 613	14 965	14 965	14 965	14 965	14 965	14 965	14 965
Note Receivable - Long Term	136	105	93	93	93	93	93	93	93
Other Long Term Assets	799	1 320	767	767	767	767	767	767	767
Total Fixed Assets	**55 918**	**55 275**	**49 846**	**49 723**	**49 445**	**49 035**	**48 489**	**47 804**	**46 976**
Working Capital									
Assets									
Minumum Cash Balance	500	500	500	633	644	660	677	694	711
Inventory	3 581	3 409	3 143	3 132	3 183	3 263	3 346	3 431	3 518
Total receivables	7 041	6 954	6 651	6 587	6 693	6 863	7 037	7 215	7 398
Prepaid expenses (incl tax receivables)	1 479	1 446	1 268	1 338	1 360	1 394	1 429	1 466	1 503
Deferred income tax	--	716	875	505	513	526	539	553	567
Liabilities									
Accounts payable and accrued payable	(4 451)	(4 874)	(5 127)	(4 470)	(4 542)	(4 657)	(4 775)	(4 896)	(5 021)
Income taxes payable	(371)	--	--	--	--	--	--	--	--
Other current liabilities	(2 722)	(2 726)	(2 912)	(2 766)	(2 811)	(2 882)	(2 955)	(3 030)	(3 107)
Dividends payable	(838)	(899)	(1 009)	(3 400)	(3 454)	(3 542)	(3 631)	(3 724)	(3 818)
Acrrued expenses	(3 892)	(4 034)	(3 968)	(3 678)	(3 737)	(3 832)	(3 929)	(4 029)	(4 131)
Deferred Income Tax	(5 063)	(5 986)	(5 304)	(3 948)	(4 735)	(4 806)	(4 878)	(4 953)	(5 030)
Working Capital	**(4 736)**	**(5 494)**	**(5 883)**	**(6 066)**	**(6 887)**	**(7 012)**	**(7 140)**	**(7 273)**	**(7 409)**
Total Capital Employed	**51 182**	**49 781**	**43 963**	**43 657**	**42 558**	**42 023**	**41 349**	**40 531**	**39 567**
Net Debt									
Cash & Equivalents	(6 119)	(9 178)	(8 226)	(10 601)	(12 089)	(13 518)	(15 099)	(16 837)	(18 736)
Total Long Term Debt	23 544	24 333	23 821	25 478	25 222	26 817	26 161	27 190	26 440
Current portion	--	2 224	4 096	4 093	4 349	2 754	3 410	2 381	3 131
Minority Interest	105	110	110	110	110	110	110	110	110
Notes Payable/Short Term Debt	4 815	3 082	980	490	--	--	--	--	--
Other long term liabilities	6 543	4 931	5 744	5 915	5 915	5 915	5 915	5 915	5 915
Total Net Debt	**28 888**	**25 502**	**26 525**	**25 485**	**23 507**	**22 078**	**20 497**	**18 759**	**16 860**
Shareholders Equity									
Convertible Preferred Stock - Non Rdmbl	41	41	41	41	41	41	41	41	41
Treasury Stock - Preferred	(164)	(171)	(181)	(181)	(181)	(181)	(181)	(181)	(181)
Common Stock, Total	26	25	25	25	25	25	25	25	25
Additional Paid-In Capital	4 178	4 095	4 115	4 115	4 115	4 115	4 115	4 115	4 115
Retained Earnings (Accumulated Deficit)	43 158	46 420	49 092	49 826	50 706	51 599	52 506	53 426	54 361
Dividens Paid	3 929	3 509	3 808	4 000	4 797	4 869	4 942	5 018	5 096
% Earnings	*62%*	*52%*	*59%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*
Treasury Stock - Common	(19 458)	(21 004)	(24 985)	(24 985)	(24 985)	(24 985)	(24 985)	(24 985)	(24 985)
Other Comprehensive Income	(5 487)	(5 127)	(10 669)	(10 669)	(10 669)	(10 669)	(10 669)	(10 669)	(10 669)
Total Equity	**22 294**	**24 279**	**17 438**	**18 172**	**19 052**	**19 945**	**20 852**	**21 772**	**22 707**
Total Sources of Capital	**51 182**	**49 781**	**43 963**	**43 657**	**42 558**	**42 023**	**41 349**	**40 531**	**39 567**

USD Millions

Appendix 23 - Forecasted Cash Flow Statement (PepsiCo)

Cash Flow Statement	2015	2016	2017	2018	2019	2020
Cash from Operating Activities						
Net Income	4 734	5 677	5 762	5 849	5 938	6 031
Depreciation and amortization	2 839	3 037	3 240	3 447	3 660	3 879
Investment in Working Capital	183	821	126	128	132	136
Cash from Operating Activities	**7 756**	**9 535**	**9 127**	**9 424**	**9 731**	**10 046**
Cash from Investing Activities						
CAPEX (PPE)	(2 716)	(2 760)	(2 830)	(2 901)	(2 975)	(3 050)
Acquisition of Business	--	--	--	--	--	--
Cash from Investing Activities	**(2 716)**	**(2 760)**	**(2 830)**	**(2 901)**	**(2 975)**	**(3 050)**
Cash from Financing Activities						
Proceeds of debt	5 750	4 093	4 349	2 754	3 410	2 381
Payments of long term debt	(4 096)	(4 093)	(4 349)	(2 754)	(3 410)	(2 381)
Notes Payable/Short Term Debt	(490)	(490)	--	--	--	--
Dividends payment	(4 000)	(4 797)	(4 869)	(4 942)	(5 018)	(5 096)
Other liabilities proceeds (payments)	171	--	--	--	--	--
Cash from Financing Activities	**(2 665)**	**(5 287)**	**(4 869)**	**(4 942)**	**(5 018)**	**(5 096)**
Net Change in Cash	2 375	1 488	1 429	1 581	1 738	1 899
Net Cash - Beginning Balance	8 226	10 601	12 089	13 518	15 099	16 837
Net Cash - Ending Balance	**10 601**	**12 089**	**13 518**	**15 099**	**16 837**	**18 736**

USD Millions

Appendix 24 - Working Capital Assumptions (PepsiCo)

Working Capital Assumptions	2012	2013	2014	2015	2016	2017	2018	2019	2020
Current Assets									
Days sales outstanding	39	38	36	38	38	38	38	38	38
Days inventory held	42	40	37	40	40	40	40	40	40
Prepaid expenses (% sales)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Deferals (% sales)	--	1%	1%	1%	1%	1%	1%	1%	1%
Current Payables									
Days payable outstanding	52	57	61	56	56	56	56	56	56
State (% sales)	1%	--	--	--	--	--	--	--	--
Other current liabilities (% sales)	4%	4%	4%	4%	4%	4%	4%	4%	4%
Dividends payable (% sales)	13%	1%	2%	5%	5%	5%	5%	5%	5%
Deferred Income Tax (% net Income)	80%	88%	82%	83%	83%	83%	83%	83%	83%
Acrrued expenses (% COGS)	12%	13%	13%	13%	13%	13%	13%	13%	13%

USD Millions

Appendix 25 - Sensitivity Analysis of The Firm Value: DCF - Perpetuity (PepsiCo)

WACC (△5%)	Perpetuity growth rate (△5%)				
	2,1%	2,2%	**2,3%**	2,4%	2,5%
5,3%	197 728	203 206	209 359	216 312	224 222
5,6%	183 425	188 047	193 211	199 012	205 568
5,9%	170 562	174 478	**178 833**	183 700	189 166
6,2%	158 944	162 274	165 962	170 064	174 648
6,5%	148 410	151 252	154 387	157 859	161 721

USD Millions

Appendix 26 - Sensitivity Analysis of The Firm Value: DCF - Exit Multiple (PepsiCo)

WACC (△5%)	EBITDA x (△5%)				
	14	15	**16**	16	17
5,3%	179 563	186 722	194 239	202 131	210 418
5,6%	177 542	184 611	192 034	199 827	208 010
5,9%	175 452	182 428	**189 753**	197 444	205 520
6,2%	173 292	180 172	187 396	194 982	202 947
6,5%	171 060	177 842	184 962	192 439	200 289

USD Millions

Appendix 27 - Sensitivity Analysis of The Firm Value Using APV (PepsiCo)

Perpetuity Growth % (△5%)	Debt Discount Rate (△5%)				
	3,4%	3,6%	**3,8%**	4,0%	4,2%
2,1%	187 523	185 094	183 065	181 347	179 874
2,2%	192 871	190 068	187 764	185 840	184 209
2,3%	199 031	195 730	**193 071**	190 886	189 061
2,4%	206 231	202 246	199 116	196 595	194 523
2,5%	214 818	209 852	206 074	203 107	200 717

USD Millions

Appendix 28 - Income Statement with Cost Savings (WhiteWave)

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 265	5 575
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	*5,8%*	*5,9%*
Cost of Revenue	(1 486)	(1 635)	(2 283)	(2 521)	(2 799)	(2 994)	(3 205)	(3 374)	(3 554)
%Sales	*-64,9%*	*-64,3%*	*-66,4%*	*-65,4%*	***-65,0%***	***-64,7%***	***-64,4%***	***-64,1%***	***-63,8%***
Gross Profit	**804**	**908**	**1 153**	**1 335**	**1 504**	**1 632**	**1 772**	**1 891**	**2 020**
Gross Margin	*35%*	*36%*	*34%*	*35%*	*35%*	*35%*	*36%*	*36%*	*36%*
SGA Costs	(571)	(627)	(751)	(897)	(942)	(1 033)	(1 106)	(1 164)	(1 227)
%Sales	*-24,9%*	*-24,7%*	*-21,8%*	*-23,3%*	**-22,4%**	**-22,3%**	**-22,2%**	**-22,1%**	**-22,0%**
Research & Development	(12)	(13)	(16)	(18)	(20)	(21)	(23)	(24)	(25)
Asset disposal and exit costs	--	(24)	1	--	--	--	--	--	--
Related Party Income	36	--	--	--	--	--	--	--	--
EBITDA	**257**	**243**	**388**	**420**	**543**	**578**	**643**	**703**	**768**
EBITDA Margin	*11%*	*10%*	*11%*	*11%*	*13%*	*12%*	*13%*	*13%*	*14%*
EBITDA growth		*-6%*	*60%*	*8%*	*29%*	*6%*	*11%*	*9%*	*9%*
Depriciation & Amortization	(77)	(85)	(121)	(144)	(158)	(173)	(190)	(207)	(225)
Operating Income	**180**	**158**	**267**	**277**	**385**	**404**	**453**	**496**	**543**
Operating Margin	*8%*	*6%*	*8%*	*7%*	*9%*	*9%*	*9%*	*9%*	*10%*
EBIT growth			*69%*	*4%*	*39%*	*5%*	*12%*	*9%*	*9%*
				0,00	*31,62*	*16,32*	*26,26*	*36,92*	*48,71*
Financial Result	(10)	(18)	(37)	(123)	(113)	(113)	(66)	(66)	(79)
Losses on interest rate swaps	(1)	4	(5)	(2)	(2)	(2)	(2)	(2)	(2)
Net Income Before Taxes (EBT)	**169**	**144**	**224**	**152**	**270**	**290**	**386**	**429**	**462**
Loss in equity method investments	2	--	(6)	(7)	--	--	--	--	--
Income Tax Expense	(57)	(44)	(78)	(51)	(95)	(101)	(135)	(150)	(162)
Net Income After Taxes	**115**	**100**	**140**	**94**	**176**	**188**	**251**	**279**	**300**
Net margin	*5%*	*4%*	*4%*	*2%*	*4%*	*4%*	*5%*	*5%*	*5%*

USD Millions

Appendix 29 - Income Statement with Growth Synergies (WhiteWave)

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 326	5 705
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	***7,0%***	***7,1%***
Cost of Revenue	(1 486)	(1 635)	(2 283)	(2 521)	(2 801)	(3 000)	(3 215)	(3 426)	(3 656)
%Sales	*-64,9%*	*-64,3%*	*-66,4%*	*-65,4%*	*-65,1%*	*-64,9%*	*-64,6%*	*-64,3%*	*-64,1%*
Gross Profit	**804**	**908**	**1 153**	**1 335**	**1 501**	**1 626**	**1 762**	**1 899**	**2 049**
Gross Margin	*35%*	*36%*	*34%*	*35%*	*35%*	*35%*	*35%*	*36%*	*36%*
SGA Costs	(571)	(627)	(751)	(897)	(947)	(1 043)	(1 123)	(1 201)	(1 287)
%Sales	*-24,9%*	*-24,7%*	*-21,8%*	*-23,3%*	-22,6%	-22,6%	-22,6%	-22,6%	-22,6%
Research & Development	(12)	(13)	(16)	(18)	(20)	(21)	(23)	(24)	(26)
Asset disposal and exit costs	--	(24)	1	--	--	--	--	--	--
Related Party Income	36	--	--	--	--	--	--	--	--
EBITDA	**257**	**243**	**388**	**420**	**535**	**561**	**617**	**674**	**736**
EBITDA Margin	*11%*	*10%*	*11%*	*11%*	*12%*	*12%*	*12%*	*13%*	*13%*
EBITDA growth		*-6%*	*60%*	*8%*	*27%*	*5%*	*10%*	*9%*	*9%*
Depriciation & Amortization	(77)	(85)	(121)	(144)	(158)	(173)	(190)	(207)	(225)
Operating Income	**180**	**158**	**267**	**277**	**377**	**388**	**427**	**467**	**511**
Operating Margin	*8%*	*6%*	*8%*	*7%*	*9%*	*8%*	*9%*	*9%*	*9%*
EBIT growth			*69%*	*4%*	*36%*	*3%*	*10%*	*9%*	*9%*
				0,00	*24,00*	*0,00*	*0,00*	*7,73*	*16,80*
Financial Result	(10)	(18)	(37)	(123)	(113)	(113)	(66)	(66)	(79)
Losses on interest rate swaps	(1)	4	(5)	(2)	(2)	(2)	(2)	(2)	(2)
Net Income Before Taxes (EBT)	**169**	**144**	**224**	**152**	**262**	**273**	**360**	**399**	**430**
Loss in equity method investments	2	--	(6)	(7)	--	--	--	--	--
Income Tax Expense	(57)	(44)	(78)	(51)	(92)	(96)	(126)	(140)	(151)
Net Income After Taxes	**115**	**100**	**140**	**94**	**171**	**178**	**234**	**260**	**280**
Net margin	*5%*	*4%*	*4%*	*2%*	*4%*	*4%*	*5%*	*5%*	*5%*

USD Millions

Appendix 30 - Income Statement with Total Synergies (WhiteWave)

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 326	5 705
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	***7,0%***	***7,1%***
Cost of Revenue	(1 486)	(1 635)	(2 283)	(2 521)	(2 799)	(2 994)	(3 205)	(3 413)	(3 637)
%Sales	*-64,9%*	*-64,3%*	*-66,4%*	*-65,4%*	***-65,0%***	***-64,7%***	***-64,4%***	***-64,1%***	***-63,8%***
Gross Profit	**804**	**908**	**1 153**	**1 335**	**1 504**	**1 632**	**1 772**	**1 913**	**2 067**
Gross Margin	*35%*	*36%*	*34%*	*35%*	*35%*	*35%*	*36%*	*36%*	*36%*
SGA Costs	(571)	(627)	(751)	(897)	(942)	(1 033)	(1 106)	(1 178)	(1 255)
%Sales	*-24,9%*	*-24,7%*	*-21,8%*	*-23,3%*	**-22,4%**	**-22,3%**	**-22,2%**	**-22,1%**	**-22,0%**
Research & Development	(12)	(13)	(16)	(18)	(20)	(21)	(23)	(24)	(26)
Asset disposal and exit costs	--	(24)	1	--	--	--	--	--	--
Related Party Income	36	--	--	--	--	--	--	--	--
EBITDA	**257**	**243**	**388**	**420**	**543**	**578**	**643**	**711**	**786**
EBITDA Margin	*11%*	*10%*	*11%*	*11%*	*13%*	*12%*	*13%*	*13%*	*14%*
EBITDA growth		*-6%*	*60%*	*8%*	*29%*	*6%*	*11%*	*11%*	*11%*
Depriciation & Amortization	(77)	(85)	(121)	(144)	(158)	(173)	(190)	(207)	(225)
Operating Income	**180**	**158**	**267**	**277**	**385**	**404**	**453**	**504**	**561**
Operating Margin	*8%*	*6%*	*8%*	*7%*	*9%*	*9%*	*9%*	*9%*	*10%*
EBIT growth			*69%*	*4%*	*39%*	*5%*	*12%*	*11%*	*11%*
				0,00	*31,62*	*16,32*	*26,26*	*45,08*	*66,64*
Financial Result	(10)	(18)	(37)	(123)	(113)	(113)	(66)	(66)	(79)
Losses on interest rate swaps	(1)	4	(5)	(2)	(2)	(2)	(2)	(2)	(2)
Net Income Before Taxes (EBT)	**169**	**144**	**224**	**152**	**270**	**290**	**386**	**437**	**480**
Loss in equity method investments	2	--	(6)	(7)	--	--	--	--	--
Income Tax Expense	(57)	(44)	(78)	(51)	(95)	(101)	(135)	(153)	(168)
Net Income After Taxes	**115**	**100**	**140**	**94**	**176**	**188**	**251**	**284**	**312**
Net margin	*5%*	*4%*	*4%*	*2%*	*4%*	*4%*	*5%*	*5%*	*5%*

USD Millions

Appendix 31 - Value of WhiteWave with Total Synergies (DCF Method)

Free Cash Flow	2015	2016	2017	2018	2019	2020	TV
EBIT	**277**	**385**	**404**	**453**	**504**	**561**	**561**
Loss in equity method investments	(7)	--	--	--	--	--	--
Income taxes on EBIT	(94)	(135)	(142)	(159)	(177)	(196)	(196)
Depreciation & Amortization	144	158	173	190	207	225	273
EBITDA	**420**	**543**	**578**	**643**	**711**	**786**	**834**
EBITDA margin	*11%*	*13%*	*12%*	*13%*	*13%*	*14%*	*15%*
Capital Expenditure	(538)	(214)	(229)	(244)	(259)	(273)	(273)
Investment in working capital	13	13	7	10	10	10	10
Free Cash Flow	**(231)**	**181**	**200**	**231**	**266**	**307**	**355**

Gordon Growth Model	2015	2016	2017	2018	2019	2020
Free Cash Flow	**(231)**	**181**	**200**	**231**	**266**	**307**
Perpetuity growth rate						5%
Perpetuity value						**13 439**
PV FCFF	(231)	169	174	186	199	214
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,7*	*0,7*
Discounted cash flow	**(231)**	**169**	**174**	**186**	**199**	**9 591**

Enterprise Value	**10 087**
Outstanding Debt	1 555
Cash	27
Equity Value	**8 560**

Exit Multiple Model	2015	2016	2017	2018	2019	2020
Free Cash Flow	**(231)**	**181**	**200**	**231**	**266**	**307**
EBITDA Steady State						834
EBITDA FY1 multiple						*16,8*
Terminal Value						**14 041**
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,7*	*0,7*
Discounted cash flow	**(231)**	**169**	**174**	**186**	**199**	**10 011**

Enterprise Value	**10 508**
Outstanding Debt	1 555
Cash	27
Equity Value	**8 980**

USD Millions

Appendix 32 - Value of WhiteWave with Total Synergies (APV Method)

Base case value	2015	2016	2017	2018	2019	2020	TV
Free Cash Flow	**(231)**	**181**	**200**	**231**	**266**	**307**	**355**
Perpetuity value							**11 688**
Perpetuity growth rate							5%
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,7*	*0,7*	0,7
Discounted cash flow	**(231)**	**168**	**172**	**184**	**196**	**210**	**8 000**

Base case value	**8 699**

Interest Tax Shield	2015	2016	2017	2018	2019	2020
Interest Tax Shield	43	40	40	23	23	28
Terminal Value of Tax Shields						2 238
Discount factor	*1,0*	*0,9*	*0,9*	*0,8*	*0,8*	*0,7*
Present Value of Tax Shields	**43**	**37**	**35**	**19**	**18**	**1 693**

Total Present Value of Tax Shields	**1 846**

	Value
Default rate	12,2%
Cost of bankruptcy	**40%**
Direct	5%
Indirect	35%

PV of Expected Bankruptcy cost	**(425)**

APV Valuation	Value	Impact
Base case value	8 699	86%
Side effects: interest tax shields	1 846	18%
Expected Bankruptcy Costs	(425)	-4%

Adjusted Present Value	**10 120**
Outstanding Debt	1 555
Cash	27
Equity Value	**8 593**

USD Millions

Appendix 33 - Forecasted Income Statement (Combined Firm)

Income Statement	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue WhiteWave	2 289	2 542	3 437	3 856	4 302	4 625	4 977	5 326	5 705
% Growth		*11,0%*	*35,2%*	*12,2%*	*11,6%*	*7,5%*	*7,6%*	*7,0%*	*7,1%*
Revenue PepsiCo	*65 492*	*66 415*	*66 683*	*63 349*	*64 362*	*65 996*	*67 670*	*69 387*	*71 148*
% Growth	*-0,6%*	*1,4%*	*0,4%*	*-5,0%*	*1,6%*	*2,5%*	*2,5%*	*2,5%*	*2,5%*
Total Revenue				***67 205***	***68 665***	***70 621***	***72 647***	***74 713***	***76 853***
Cost of Revenue WhiteWave	(1 486)	(1 635)	(2 283)	(2 521)	(2 799)	(2 994)	(3 205)	(3 413)	(3 637)
%Sales WhiteWave	*-65%*	*-64%*	*-66%*	*-65,4%*	*-65,0%*	*-64,7%*	*-64,4%*	*-64,1%*	*-63,8%*
Cost of Revenue PepsiCo	(31 291)	(31 243)	(30 884)	(28 886)	(29 348)	(30 093)	(30 857)	(31 640)	(32 442)
%Sales PepsiCo	*-48%*	*-47%*	*-46%*	*-46%*	*-46%*	*-46%*	*-46%*	*-46%*	*-46%*
Total Cost of Revenue				***(31 407)***	***(32 147)***	***(33 087)***	***(34 062)***	***(35 052)***	***(36 080)***
Gross Profit				**35 798**	**36 518**	**37 534**	**38 585**	**39 661**	**40 773**
Gross Margin				*53%*	*53%*	*53%*	*53%*	*53%*	*53%*
SGA Costs				(22 024)	(22 406)	(23 042)	(23 673)	(24 318)	(24 982)
%Sales				*-32,8%*	*-32,6%*	*-32,6%*	*-32,6%*	*-32,5%*	*-32,5%*
Research & Development				(700)	(713)	(732)	(751)	(771)	(791)
Operating Interests				(263)	(267)	(274)	(281)	(288)	(296)
Transaction fee (merge cost)				(182)					
EBITDA				**12 812**	**13 132**	**13 487**	**13 880**	**14 284**	**14 704**
EBITDA Margin				*19%*	*19%*	*19%*	*19%*	*19%*	*19%*
EBITDA growth					*3%*	*3%*	*3%*	*3%*	*3%*
Depriciation & Amortization				(2 983)	(3 195)	(3 413)	(3 637)	(3 867)	(4 104)
Operating Income				**9 647**	**9 937**	**10 074**	**10 243**	**10 417**	**10 600**
Operating Margin				*14%*	*14%*	*14%*	*14%*	*14%*	*14%*
EBIT growth					*3%*	*1%*	*2%*	*2%*	*2%*
Financial Result				(992)	(945)	(931)	(871)	(856)	(854)
Net loss on interest rate swaps				(2)	(2)	(2)	(2)	(2)	(2)
Net Income Before Taxes (EBT)				**8 653**	**8 991**	**9 141**	**9 370**	**9 559**	**9 745**
Loss in equity method investments				(7)	--	--	--	--	--
Income Tax Expense				(3 026)	(3 147)	(3 199)	(3 280)	(3 346)	(3 411)
Net Income After Taxes				**5620**	**5844**	**5942**	**6091**	**6213**	**6334**
Net margin				*8%*	*9%*	*8%*	*8%*	*8%*	*8%*

USD Millions

Appendix 34 - Forecasted Balance Sheet (Combined Firm)

Balance Sheet	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fixed Assets									
Property/Plant/Equipment, Total - Net	19 761	19 235	18 237	19 661	18 187	16 554	14 755	12 787	10 643
Long Term Investments	2 351	2 623	2 732	2 732	2 732	2 732	2 732	2 732	2 732
Intangible assets	16 899	16 415	14 778	19 087	20 339	21 618	22 924	24 259	25 623
Goodwill	17 737	17 385	16 033	19 140	19 140	19 140	19 140	19 140	19 140
Note Receivable - Long Term	136	105	93	93	93	93	93	93	93
Other Long Term Assets	820	1 339	806	806	806	806	806	806	806
Total Fixed Assets	**57 703**	**57 102**	**52 680**	**61 519**	**61 297**	**60 942**	**60 451**	**59 817**	**59 037**
Working Capital									
Assets									
Minumum Cash Balance	550	550	550	672	687	706	726	747	769
Accounts Receivable	7 165	7 101	6 858	6 804	6 934	7 122	7 316	7 514	7 718
Total Inventory	3 728	3 568	3 359	3 371	3 447	3 546	3 649	3 753	3 862
Prepaid Expenses and other current assets	1 501	1 469	1 304	1 395	1 423	1 462	1 502	1 544	1 586
Deferred Income Tax	21	743	905	539	553	567	584	602	619
Liabilities									
Accounts payable and accrued expenses	(4 728)	(5 212)	(5 569)	(4 958)	(5 084)	(5 237)	(5 396)	(5 557)	(5 725)
Income Taxes Payable	(383)	(14)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other current liabilities	(2 741)	(2 745)	(2 939)	(2 797)	(2 845)	(2 919)	(2 995)	(3 073)	(3 152)
Dividends Payable	(838)	(899)	(1 009)	(3 400)	(3 454)	(3 542)	(3 631)	(3 724)	(3 818)
Acrrued expenses	(3 892)	(4 034)	(3 968)	(3 678)	(3 737)	(3 832)	(3 929)	(4 029)	(4 131)
Deferred Income Tax	(5 063)	(5 986)	(5 304)	(3 948)	(4 735)	(4 806)	(4 878)	(4 953)	(5 030)
Working Capital	**(4 680)**	**(5 460)**	**(5 814)**	**(6 002)**	**(6 812)**	**(6 932)**	**(7 052)**	**(7 176)**	**(7 304)**
Total Capital Employed	**53 023**	**51 642**	**46 865**	**55 517**	**54 485**	**54 011**	**53 399**	**52 641**	**51 733**
Net Debt									
Cash & Equivalents	(6 138)	(9 229)	(8 226)	(2 472)	(3 917)	(5 250)	(6 741)	(8 394)	(10 216)
Total Long Term Debt	24 310	24 981	25 317	27 662	27 345	28 877	28 155	29 117	28 299
Minority Interest	105	110	110	110	110	110	110	110	110
Other Long Term Liabilities	6 620	4 981	5 786	5 957	5 957	5 957	5 957	5 957	5 957
Current portion	15	2 239	4 117	4 117	4 431	2 837	3 493	2 464	3 214
Notes Payable/Short Term Debt	4 815	3 082	980	490	--	--	--	--	--
Deferred Income Tax	218	238	267	267	267	267	267	267	267
Total Net Debt	**29 944**	**26 401**	**28 351**	**36 131**	**34 193**	**32 798**	**31 242**	**29 522**	**27 632**
Shareholders Equity									
Common Stock, $0.01 par value	28	27	27	27	27	27	27	27	27
Additional Paid-In Capital	4 971	4 946	4 994	4 994	4 994	4 994	4 994	4 994	4 994
Unrealized Gain (Loss)	(0)	0	1	1	1	1	1	1	1
Retained Earnings (Accumulated Deficit)	43 176	46 537	49 349	50 220	51 126	52 047	52 991	53 954	54 936
Dividens Paid	3 929	3 509	3 808	4 749	4 938	5 021	5 147	5 250	5 352
% Earnings	*62%*	*52%*	*59%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*
Translation Ajdustments	(26)	(8)	(60)	(60)	(60)	(60)	(60)	(60)	(60)
Convertible Preferred Stock - Non Rdmbl	41	41	41	41	41	41	41	41	41
Treasury Stock - Preferred	(164)	(171)	(181)	(181)	(181)	(181)	(181)	(181)	(181)
Treasury Stock - Common	(19 458)	(21 004)	(24 985)	(24 985)	(24 985)	(24 985)	(24 985)	(24 985)	(24 985)
Other Comprehensive Income	(5 487)	(5 127)	(10 669)	(10 669)	(10 669)	(10 669)	(10 669)	(10 669)	(10 669)
Minimum Pension Liability Adjustment	(2)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Total Equity	**23 079**	**25 240**	**18 514**	**19 386**	**20 292**	**21 213**	**22 157**	**23 120**	**24 102**
Total Sources of Capital	**53 023**	**51 642**	**46 865**	**55 516**	**54 485**	**54 010**	**53 398**	**52 641**	**51 733**

USD Millions

Appendix 35 - Cash Flow Statement (Combined Firm)

CASH FLOW STATEMENT	2014	2015	2016	2017	2018	2019	2020
Cash from Operating Activities							
Net Income		5 620	5 844	5 942	6 091	6 213	6 334
Depreciation and amortization		2 983	3 195	3 413	3 637	3 867	4 104
Investment in Working Capital		188	810	120	120	124	128
Cash from Operating Activities		**8 791**	**9 848**	**9 475**	**9 848**	**10 204**	**10 566**
Cash from Investing Activities							
CAPEX (PPE)		(2 915)	(2 973)	(3 058)	(3 145)	(3 234)	(3 323)
Acquisition of Business		(715)	--	--	--	--	--
Acquistion of WhiteWave		(8 193)					
Cash from Investing Activities		**(11 822)**	**(2 973)**	**(3 058)**	**(3 145)**	**(3 234)**	**(3 323)**
Cash from Financing Activities							
Proceeds of debt		6 463	4 114	4 368	2 772	3 426	2 396
Dividends payments		(4 749)	(4 938)	(5 021)	(5 147)	(5 250)	(5 352)
Payments of long term debt		(4 117)	(4 117)	(4 431)	(2 837)	(3 493)	(2 464)
Notes Payable/Short Term Debt		(490)	(490)	--	--	--	--
Other liabilities proceeds (payments)		171	--	--	--	--	--
Cash from Financing Activities		**(2 722)**	**(5 431)**	**(5 083)**	**(5 212)**	**(5 317)**	**(5 421)**
Net Change in Cash		(5 753)	1 444	1 333	1 491	1 653	1 821
Net Cash - Beginning Balance		8 226	2 472	3 917	5 250	6 741	8 394
Net Cash - Ending Balance	8 226	**2 472**	**3 917**	**5 250**	**6 741**	**8 394**	**10 216**

USD Millions

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