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Unilever

Equity Valuation

Unilever Group

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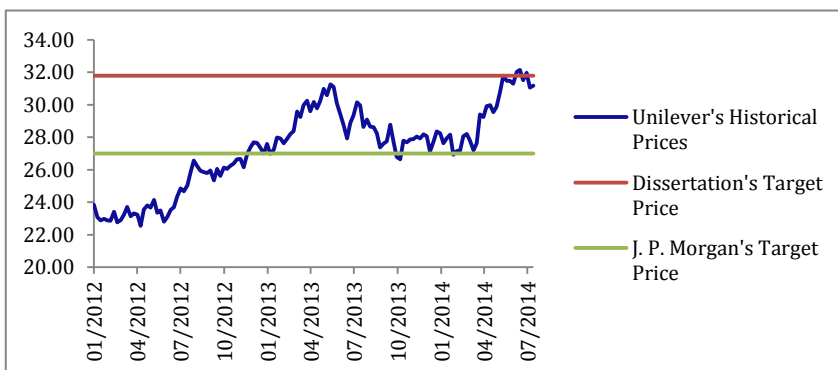
“UNILEVER: WATCH OUT! TIME TO INVEST”

Unilever is a global warrior fighting its competitors and adverse market conditions mainly in result of the economic crisis. Even in a mature and too competitive market, Unilever has found its way to make it noticeable to consumers and have a very healthy capital structure – being its credit rated at A+ by Standard & Poor’s.

Its wide brand portfolio is segmented into 4 businesses – Personal Care, Foods, Refreshment and Home Care products – being somewhat able to diversify the risk within the market. This year in particular, 2014, has been quite challenging since high expectations and goals were made but the market is the one that dictates its future. Therefore, Unilever has already been rearranging its goals for the year and changing its operational strategy (for instance, increasing its mix of prices according to the inflation behavior). Furthermore, the aligned main priorities for 2014 are to reach a volume growth ahead of its markets, a steady and sustainable improvement in core operating margin, and strong cash flows.

Being all that said, even with the current struggles, an opportunity must be given to Unilever since it is expected to improve ahead.

This report is based on thorough research of public information in order to make reliable assumptions regarding Unilever operations. Moreover, a DCF-WACC based methodology was performed estimating a target price of €36.39. Since the market is yielding to a price of €31.86 at 24th July of 2014, a buy recommendation will be issued.



RECOMMENDATION

BUY

TARGET PRICE

€36.39

CURRENT COMPANY INFO

Price @ 24/07/2014: €31.86

Shares O/S (Million): 2,840

VALUATION TARGET

EV (€M): 108,799

Mkt Value of Equity (€M): 103,356

Target Price (€): €36.39

Shares O/S (Million): 2,840

Date of Price: 24/07/2014

J.P. MORGAN VALUATION TARGET

Target Price: €27.00

52-week range: €32.72 – 26.97

Shares O/S (Million): 2,829

Date of Price: 24/07/2014

CREDIT RATING

Standard & Poor's: A+

ABSTRACT

The following dissertation has the purpose to value the Unilever Group, but more specifically Unilever N.V. being publicly traded in the Amsterdam Exchange Index. Unilever is seen as a global player and one of most successful and competitive fast-moving consumer goods companies.

In order to value Unilever's equity, a Discounted Cash Flow (DCF) approach is first carried out, since it is believed to be the most reliable methodology. The value estimated was €36.39, advising one to buy its shares when comparing to the actual price of € 31.86.

Further on, a relative valuation (selecting a specific peer group and applying multiples) is suggested, as a complementary analysis to the DCF, leading to a target price of €34.15 using a forward enterprise-value multiple for 2014. Meaning, once again, a buy recommendation is issued, since the market currently yields a lower value.

As a final assessment and basing the target price on the present value of future dividends, a Dividend Discount Model (DDM) is performed. This model indicates Unilever's is priced at €18.65, leading to an overvalued market price and, consequently, a selling opportunity.

Lastly, a comparison is made between these results and the target price reached by a JP Morgan's analyst, being the last one priced at €27.00 using a DCF-WACC methodology (representing a selling opportunity). All details are further addressed in this Thesis.

ACKNOWLEDGMENTS

Since this experience has been quite a rollercoaster ride, all the support and motivation received was determinant to accomplish yet another great challenge and get to succeed at the end.

Firstly, I would like to thank my advisor, Professor José Tudela Martins, for all his guidance and availability leading me into the right path.

All my gratitude goes to Horácio Cal, Chief Sales Officer of Olá and Lipton at Unilever Jerónimo Martins, who kindly shared relevant internal information in order to conceptualize my assumptions.

And finally, a special thanks to my parents for the unconditional support and to all my friends who accompanied me in this journey by giving constructive suggestions and supporting me all the way.

I believe after this era, I will leave as a wiser and responsible professional, but also a better and stronger individual.

TABLE OF CONTENTS

Cover	i
Research Note	ii
Abstract	iii
Acknowledgments	iv
1. Literature Review	8
1.1. Introduction	8
1.2. Valuation Models	9
1.2.1. The Discounted Cash Flows Method	10
1.2.2. The Adjusted Present Value Method	10
1.2.3. Relative Valuation	11
1.2.4. Option Pricing Theory and Models	13
1.2.5. Dividend Discount Model	14
1.2.6. Economic Added Value Method	16
1.2.7. Economic Profit Method	16
1.2.8. Valuation in Emerging Markets	17
1.3. Main Conclusions	17
1.4. Further Concerns	18
1.4.1. The Terminal Value	18
1.4.2. The Present Value of the interest tax shields	19
1.4.3. The Market Risk Premium	19
1.4.4. Levered and Unlevered Beta	20
1.4.5. Cost of Equity	21
1.4.6. Cost of Debt	21
2. Unilever	22
2.1. Brief Presentation	22
2.2. Business Segmentation	24
2.3. Main Competitors	25
2.4. Industry Insight	25
3. Equity Valuation	26
3.1. Discounted Cash Flow Methodology	26
3.1.1. Main Assumptions	26
3.1.1.1. Turnover.....	26
3.1.1.1.1. Turnover according to Business Segment	28
3.1.1.2. Cost of Sales	28
3.1.1.3. Selling and Administrative Costs	29
3.1.1.3.1. Research and Development Costs	29
3.1.1.4. Net Finance Costs	30

3.1.1.5. Other Results from non-current investments	30
3.1.1.6. Share of Results of Joint Ventures and Associates	30
3.1.1.7. Income Taxes	31
3.1.2. Free Cash Flow to the Firm	31
3.1.2.1. Depreciation and Amortization	31
3.1.2.2. Provisions	32
3.1.2.3. Net Working Capital	32
3.1.2.4. Capital Expenditures	33
3.1.3. Weighted Average Cost of Capital	33
3.1.3.1. Cost of Debt	33
3.1.3.2. Cost of Equity	34
3.1.3.2.1. The Risk Free Rate	34
3.1.3.2.2. Market Risk Premium	35
3.1.3.2.3. Levered Beta	35
3.1.3.3. Capital Structure	35
3.1.4. DCF Valuation Output	36
3.1.4.1. Personal Care Segment	37
3.1.4.2. Foods Segment	39
3.1.4.3. Refreshment Segment	39
3.1.4.4. Home Care Segment	40
3.2. Relative Valuation	41
3.2.1. Peer Group Selection	41
3.2.2. Multiples	42
3.3. Dividend Discount Model	43
4. Research Report Comparison	45
5. Conclusion	47
6. Appendix	48
Appendix 1 – Stock Returns versus Market Returns	48
Appendix 2 – GDP growth rate	48
Appendix 3 – Inflation rate	49
Appendix 4 – Exchange rates (GBP, USD, EUR)	49
Appendix 5 – Liabilities	50
Appendix 6 – Income Statement	50
Appendix 7 – Net Working Capital estimation	52
Appendix 8 – Free Cash Flow to the Firm	52
Appendix 9 – Comparison of estimated beta and Bloomberg’s beta	53
Appendix 10 – Relative Valuation	55
Appendix 11 – Dividend Discount Model	55
7. Acronyms	56



8. References	57
8.1. Books	57
8.2. Articles	57
8.3. Other Research	58
8.4. Seminar Material	58
8.5. Websites	58

1 LITERATURE REVIEW

1.1 INTRODUCTION

In order for a company to assess if its future events and strategic decisions might bring success or failure to its activity, a valuation tool is usually used. Luehrman (1997) refers that those decisions are related to resource allocation and it creates a direct impact on the company's value.

“(…) how a company estimates value is a critical determinant of how it allocates resources”
and this allocation is “a key driver of a company's overall performance”

– LUEHRMAN, 1997

Luehrman (1997) also refers this resource allocation brings three issues into the valuation – operations, opportunities and ownership claims – which must be valued correctly, according to three fundamental factors – cash, timing and risk.

Furthermore, those three issues can be valued through choosing a tool from a diverse portfolio of valuation approaches. However, a somewhat deep analysis into the structural features and the kind of major decisions managers face must be done in order to find a match in terms of the tool to choose from.

Any analysis, however, is only as accurate as the forecasts it relies on (Goedhart et. al, 2005). Errors while estimating the key ingredients of corporate value ingredients such as a company's return on invested capital (ROIC), its growth rate, and its weighted average cost of capital (WACC) can lead to mistakes in valuation and, ultimately, to strategic errors.

Young et al. (1999) claims that there are so many valuation approaches that managers might tend to use every single one that fits just because. In fact it is referred that higher number of approaches used leads to a weaker message in terms of final conclusions for the valuation. The paper offers a step-by-step guide in order to cut through this complexity, by stating that every valuation approach are mathematically equal since they represent only a different way of expressing the same underlying model. Therefore, four main practical implications are defended to be relevant for this logical thinking – consistency of the data and of the assumptions; comparison between models; uniqueness of the one single fair value estimation; and, consistency without uniformity, in which all analysts should be free to decide about the valuation approach to use (Young et al., 1999).

In this chapter, several valuation frameworks will be mentioned and explained in order to find adequate ones for this Thesis – including the discounted cash flow based ones, the multiples approach and options, between others – and relevant variables for this purpose will also be clarified. At the end of all sections, a final comment will be made related to the ones which will be used afterwards during the valuation.

1.2 VALUATION MODELS

1.2.1 THE DISCOUNTED CASH FLOWS METHOD

The discounted cash flow (DCF) method is based upon expected future cash flows discounted at a risk rate according to the type of cash flow associated.

$$\text{Value of Assets} = \frac{E(CF_1)}{(1+r)} + \frac{E(CF_2)}{(1+r)^2} + \frac{E(CF_3)}{(1+r)^3} + \dots + \frac{E(CF_n)}{(1+r)^n} \quad (1)$$

Where:

$E(CF_t)$ = Expected Cash Flow in period t

r = discount rate according to the associated risk of each estimated cash flow

n = life period of asset

Valuations based on this approach take into account free cash flows, having two different perspectives – Free Cash Flow to the Firm (FCFF) and Free Cash Flow to the Equity (FCFE). The first one is characterized by the sum of the cash flows to all claim holders in the firm, including stockholders, bondholders and preferred stockholders (Damodaran, 2002). The relationship between these two variables can be explained as follows:

$$\begin{aligned} \text{FCFF} = \text{FCFE} + \text{interest expense} \times (1 - t) - (\text{new debt issued} - \text{debt repayments}) \\ + \text{preferred dividends} \end{aligned} \quad (2)$$

Where:

t = Interest rate

Being,

$$\begin{aligned} \text{FCFF} = \text{EBIT} - \text{taxes on EBIT} + \text{Depreciation and Amortization} + \Delta \text{Provisions} \\ - \Delta \text{Net Working Capital} - \text{Capital Expenditures} \end{aligned} \quad (3)$$

Both approaches would represent at the end the same value, however the methodology behind them is different since the first one (FCFF) is discounted at a constant rate, called weighted average cost of capital (WACC), whereas the latter is at cost of equity.

$$\text{WACC} = \frac{D}{V} \times K_d \times (1 - t) + \frac{E}{V} \times K_e \quad (4)$$

Where:

D = Market Value of Debt

E = Market Value of Equity

V = Market Value of the Firm

K_d = cost of debt

t = tax rate

K_e = cost of equity

WACC is a tax-adjusted discount rate since it reflects the interest tax shields' value while using an operation's debt capacity. On one hand, using a constant rate such as this one for all expected cash flows of a firm can make calculations quite simple and keep them to a minimum (Luehrman, 1997). On the other hand, this simplicity is not considered suitable for any situation, but only for the simplest and most static of capital structures.

According to Damodaran (2002), this model is proper for companies or assets with currently positive cash flows and for those that can reliably estimate values for future periods. In addition, it can only be used to obtain discount rates when a proxy for risk is available.

However, as every other model, it is not perceived as a perfect one. And DCF has its own limitations to when it comes to: distressed firms with negative earnings and cash flows and/or which expect to lose money for some time in the future; cyclical firms with earnings and cash flows following the economy – rising during economic booms and failing during recessions – which lead to a “smoothed out” of expected future CFs; firms with unutilized assets which means assets that do not produce any cash flows to the firm having then no impact when discounting expected future cash flows; firms with patents or product options (which don't produce any current CFs and do not expect future ones but they are perceived as valuable) that will lead to a understate of firm value; firms in the process of restructuring (in which may happen some asset sale or acquisition, for example) which may difficult the estimation of those future CFs and also will affect the riskiness of the firm; firms involved in acquisitions due to the difficulty in estimating the value of those synergies; and finally, for private firms since internal and relevant information is not public and therefore the measurement of the risk (used when estimating discount rates) is quite difficult.

1.2.2 THE ADJUSTED PRESENT VALUE METHOD

Since WACC is seen as a limited “opportunity cost” for all cash flows, few corrections might be done in order to achieve a more realistic model. In this case, the adjusted present value (APV) method is the solution. Using this one, WACC can be adjusted beyond tax shields. In fact, APV will now take into account further criterion, such as issue costs, subsidies, hedges, exotic debt securities, and dynamic capital structures.

In addition, these adjustments must be taken into consideration in accordance to the kind of project and period which are being used in each case. Also, as referred previously, a DCF valuation methodology may incur in more mistakes and errors when valuating companies with a very complex capital structures, tax position, or fund-raising strategy – Luehrman, 1997.

This methodology starts by estimating the value of the firm with no leverage (discounting the expected FCFF at the unlevered cost of equity and using an unlevered beta of the firm). Afterwards, the leverage variable will be taken into consideration by estimating the present value of the interest tax savings. This value is described as a borrowed amount of money and its further valuation based

upon the probability that the firm will go bankrupt and the expected cost of bankruptcy. This probability might be estimated through bond rating or using a statistical approach (for instance a probit¹) to estimate the probability of default, taking in to consideration the firm's observable characteristics, at each level of debt).

$$\begin{aligned} \text{Value of a levered firm} &= \text{Unlevered Value} + \text{Present Value of tax benefits} & (5) \\ &- \text{Present Value of expected Bankruptcy costs} \end{aligned}$$

All in all, APV model takes a project and breaks it into several *managerial* parts, values each one according to its properties and then adds them back up – relying on the principle of *value additivity* – Luehrman, 1997.

Damodaran (2002) considers APV as a more flexible approach. When analyzing bankruptcy costs, this model takes into consideration also the indirect ones which can yield to a more conservative estimation of the value. In addition, the APV model shows tax benefit as a dollar debt value (based on existing debt), whereas DCF estimates tax benefit from debt ratio leading consequently to future borrows of great amount.

To sum up, APV separates the effects of debt into different components and allows using different discount rates for each component, becoming more realistic. And also, APV takes into account that the debt ratio may not stay unchanged throughout time. Instead, it becomes more flexible by keeping the dollar value of debt fixed and calculating its benefits and costs.

Nevertheless, there are also a few limitations to this model, such as the difficulty of estimating probabilities of default and the cost of bankruptcy, and it is not that easy to use when firms are analyzing debt proportions. In the latter case, the DCF method would be more suitable.

1.2.3 RELATIVE VALUATION

Goedhart et al. (2005) stress that using a multiples analysis, can bring many benefits for a company, starting by being a tool to forecast its cash flows and to compare its performance and value creation (by being well strategically positioned, for instance) to other industry players. After all, this kind of analysis can give some insights into the strategy and key factors of a company or even an industry. Yet, multiples are often misapplied and misunderstood.

Damodaran (2002) refers the main advantage of using a relative valuation which is the simplicity and easiness to work with. Furthermore, it becomes quite useful whenever a large number of comparable firms are being traded on financial markets and the market is pricing them, on average, correctly.

¹ Probit is a regression model in which the dependent variable is only able to acknowledge two values, being therefore considered as an ordinal or a binary response model.

On the other hand, has a limited use whenever the comparables are not that obvious mainly due to the subjective meaning of “comparable” since perspectives and opinions may differ between analysts. Consequently, it is easy to misuse and manipulate this valuation. In addition, following what was referred previously on this subject, the valuation depends mainly on how the market is pricing those comparable firms, which means this valuation might be built in errors (overvaluation or undervaluation) – Damodaran, 2002.

Furthermore, Goedhart et al. (2005) include three major problems while using multiples for a company’s valuation. Firstly, “investors have different expectations about each company’s ability to create value going forward”. An accurate comparable has to be one with similar expectations when it comes to growth and ROIC variables. Secondly, “different multiples can suggest conflicting conclusions when interpreting and comparing results between different multiples from comparables”. Finally, “different multiples are meaningful in different contexts”. Many corporate managers believe that growth rates and multiples do not follow that same pattern. For instance, one must take into account growth and returns on capital when making conclusions through this analysis. P/E multiple is increased due to a positive growth, but only when there are healthy returns on invested capital. And, this aspect can vary across companies. Therefore, not taking those two variables into consideration, can lead to a situation where a company has achieved its growth objectives but forfeit the benefits of a higher P/E.

Goedhart et al. (2005) explain as well the four basic principles which can help companies to apply multiples properly. Firstly, one should choose peers with similar expectations for ROIC and growth. In order to choose suitable ones, one needs to list a company’s competitors and examine each one regarding operating and financial aspects – for instance, what kind of products they are selling, how they generate profits and revenues, and how is their growth – in order to end up with a smaller number of reliable and comparable peers. Secondly, one should not use multiples based on historical profits, but based on future events. Moreover, P/E multiples may incur in error due to varying according to a company’s capital structure and to being based on earnings which include many non-operating items. Therefore, using enterprise-value multiples is preferable. For example, changes in capital structure do not have a great impact on the enterprise-value-to-EBITDA multiple – except when such change lowers the cost of capital, which will lead to a higher value for this multiple. Also, the latter multiple needs to suffer some adjustments related to non-operating items (such as excess cash and operating leases).

Nevertheless, depending on the type of situation, other multiples can be used. For instance, price-to-sales multiples have their own limitations since it assumes that comparable companies need to have similar perspectives of growth, ROIC and operating margins.

PEG ratios (comparing a company’s P/E ratio with its underlying growth rate in earnings per share) are more flexible since they allow the expected level of growth to vary across companies. Therefore, it becomes easier to value companies in different stages of the life cycle – meaning different

growth rates. However, a standard time frame in order to measure expected growth of a company is hard to achieve with this kind of ratio and they assume a linear relation between multiples and growth – which means a company can have a null multiple or even being undervalued when there is no growth or a low growth rate, respectively.

Furthermore, in case of evaluating a company with small sales and negative profits, nonfinancial multiples may be more suitable, even acknowledging the uncertainty related to the potential market size and to these companies' profitability or the investments they require. After all, nonfinancial multiples compare enterprise value to a non-operating statistic, however they should be used only when they achieve more realistic values than financial ones do. Also, like all multiples, nonfinancial ones are only *relative* tools and they merely measure one company's valuation compared with another's.

In what concerns multiple estimation, Liu et al. (2002) believes a harmonic average, using all companies within the peer group, needs to be taken into consideration since it yields more reasonable results regarding the performance of the company in analysis.

1.2.4 OPTION PRICING THEORY AND MODELS

When it comes to valuing opportunities within a company, Luehrman (1997) believes this approach to be the best. Being so, a common approach is to value those opportunities only when they reach maturity – the point where an investment decision can no longer be deferred. Not doing so, usually yields to undervaluing the future and hence, to underinvest. In addition, not having a formal valuation procedure may rise to personal and informal statements affecting the evaluation.

In financial terms, an opportunity is comparable to an option. This analogy is due to having the right – but not the obligation – to exercise the option to purchase or sale of an item at a specified price until a determined future date. And corporate opportunities are seen as the same when it comes to investment decisions around those opportunities – the action of investing on some opportunity is analogous to exercise an option (Luehrman, 1997). So, one is able to provide a value to an option which depends on the value of the underlying asset – the stock. Yet, in terms of ownership it is not so linear, since the ownership of a stock has not the same meaning or value of owning the option.

Several variables are taken into consideration, firstly with the cash from the business and the cash needed in case one decides to enter it. In addition, the timing of its flows and the chance of deferring an investment decision and its duration are both of great importance. And, finally, the risk variable must not be forgotten. When investing in a business, one needs to take in to account whether that business is risky or not, and whether its circumstances may or not change before the decision deadline.

One needs to be able to acknowledge the analogous characteristics of a project and an option. First, an option's exercise price corresponds to the expected investment in those opportunities. Consequently, exercising a call option and owning afterwards the stock is like the operating assets a company would own after the investment. Following the same logic, the length of time waited for the company to make a decision is comparable to the expiration time of a call option.

As every other project, uncertainty plays a major role in decision-making situations. In fact, the future value of an asset (operating ones or call options, for instance) captures uncertainty which is determined by the behavior of those assets' returns.

Concerning options valuation, the Black-Scholes model is the most used one. The major limitation of this approach is that it is "designed to value options that can be exercised only at maturity and on underlying assets that do not pay dividends" – Damodaran, 2002.

Therefore, a possibility to overcome this issue is to include the dividends variable whether it is a short- or long-term option. Unquestionably, paying dividends will reduce the stock price leading to an increase in value for put options and the other way around for call options. Being so, in case of dealing with short-term options, the methodology is to estimate the present value of expected dividends that will be paid by the underlying asset and deduct this value to the current stock price (S' – modified stock price). Otherwise, if a long-term option is being analyzed, one ought to control whether the dividend yield (y – dividends under current value of the asset) on the underlying asset is expected to remain constant during the option's life.

In case of having long-term scoped opportunities in a business environment suffering with high volatility, a DCF methodology would not be considered wise to use, since no reliable conclusions can be estimated. And in these cases, one does not need to have a very refined and complex option-pricing analysis in order to achieve some meaningful conclusions.

Furthermore, while choosing different valuation methodologies, Luehrman (1997) advises to use option pricing as a complementary analysis, and not as a replacing one. A practical way to use this kind of analysis is to run it afterwards a DCF analysis, since its outputs will become the inputs for option-pricing.

Finally, in terms of costs, this one is costlier and quite accessible. However it is less intuitive leading one to learn more about the tool and further procedures.

1.2.5 DIVIDEND DISCOUNT MODEL

Joint ventures, partnerships, or strategic alliances, or investments using project financing give the opportunity to companies to diversify their investments and share risk with other parties. Furthermore, they are sharing ownership. Thus, the venture value will no longer be the most important value to pay attention for since one needs to be careful with its interest in it. It is based

on these values that one should make a decision in terms of whether or not to participate, how to structure ownership claims and how to accomplish a good contract at the end.

A straightforward and simple way of valuing a company's equity is to forecast its share of expected future cash flows and discounting them at the opportunity cost, which is related to the risk based on what it is bearing. This valuation is referred as the equity cash flow (ECF) approach or even flows to equity. In comparison to the APV or the WACC-based approach, both the cash flows and the discount rate are different. For the cash flows, those need to be adjusted for fixed financial claims (for instance, interest and principal payments), and the discount rate ought to be adjusted due to the risk one is bearing of holding a levered company.

Handling leverage properly is an important aspect to take on, mainly when a company has a high leverage, whether it is changing throughout time, or both. Unfortunately, it is not an easy task. Firstly, when facing a high leverage, equity may be perceived as a call option on a company's assets and owned by its shareholders. Whenever a business is successful, the "option may be exercised" leading to the lenders' payment according to what they are owed and the residual value goes to the shareholders. On the other hand, if the business is not quite successful, the borrower may default since the business will be worth less than what was lend, which means, though the company will not be able to repay in full the lenders, they will get ownership of its assets.

Even though the equity can be seen as a call option, an ECF valuation is not option pricing. One of the reasons is that "levered equity is a complex sequence of related options, including options on options" (Luehrman, 1997).

The first step for an ECF valuation is to determine when default risk is no longer high. At that point, one follows the same steps of a DCF analysis, establishing an expected future value for the equity and discounting it yearly taking into consideration eventual changes in risk, reaching at the end a present value for the equity.

As referred previously, making decisions related to the structure of ownership claims can also be helped by doing an ECF analysis since it can predict how changes in that structure can affect yearly cash flows and respective risk for the equity holders. This analysis is quite important since one can predict equity holders behaviors towards those changes.

Besides ECF model, an analyst is able to evaluate equity claims by valuing the entire business through a conventional DCF analysis (a WACC-based one) and then deducting the value of debt claims and other partners' equity interests. The downside of this methodology is how to know the true value of those other claims. One may apply ECF model to estimate them or apply a price-earnings multiple to a company's share of the venture's net income. The latter brings more simplicity to the estimation, however it is difficult to find or create the right multiple.

At the end, Luehrman (1997) concludes that ECF is a more specialized valuation tool than either APV or option pricing because it addresses a more specific question – "What is the value of an

equity claim on this bundle of assets and opportunities, assuming they are financed in this fashion?”. At the end, it requires more insight and inputs from corporate financial and capital-budgeting systems.

1.2.6 ECONOMIC VALUE ADDED METHOD

Using the economic value added (EVA) method, means measuring the dollar surplus value created by an investment or a portfolio of investments.

$$\begin{aligned} \text{EVA} &= (\text{ROIC} - \text{cost of capital}) \times \text{Capital Invested} = & (6) \\ &= \text{After tax operating income} - (\text{cost of capital} \times \text{capital invested}) \end{aligned}$$

The capital invested corresponds to the market value of the firm but just for the assets in place, which might be considered a proxy for the book value of capital – Damodaran, 2002. To estimate this value, operating leases are converted into debt, R&D expenses are capitalized and the effect of onetime or cosmetic charges has to be eliminated. Alternatively, it can also be estimated by looking at the assets owned by the firm, estimating their market value and then cumulating those values.

Concerning return on investment cost (ROIC) – which is used to measure the profitability of the overall firm – is an estimation of the after-tax operating income earned by a firm on these investments and the same corrections referred previously must also be taken into account.

The cost of capital is estimated based upon the market value of debt and equity in the firm, rather than book values.

$$\text{Firm Value} = \text{Value of Assets in Place} + \text{Value of Expected Future Growth} \quad (7)$$

$$\text{Firm Value} = \text{Capital Invested}_{\text{Assets in Place}} + \sum_{t=1}^{\infty} \frac{\text{EVA}_{t, \text{Assets in Place}}}{(1+k_c)^t} + \sum_{t=1}^{\infty} \frac{\text{EVA}_{t, \text{Future Projects}}}{(1+k_c)^t} \quad (8)$$

1.2.7 ECONOMIC PROFIT METHOD

One major flaw of the DCF model is the lack of insight into a company’s economic performance. Instead, it focuses on the movements of cash flows within the company. Whenever making strategic decisions, one may find useful understanding the impact on a company’s evolution of free cash flows changes. Thus, the economic profit based valuation model explains how and when a company achieves a valuation creation state (Koller et al., 2005).

$$\text{Value}_0 = \text{Invested Capital}_0 + \sum_{t=1}^{\infty} \frac{\text{Invested Capital}_{t-1} \times \text{ROIC}_t - \text{WACC}}{(1+\text{WACC})^t} \quad (9)$$

The future economic profits are valued as a perpetual value using therefore a constant growth rate to capitalize it (WACC, in this case). The formula above shows that when future economic profits are expected to be zero, the present value of operations turns out to be equal to the capital invested

initially. On the other hand, when the present value of operations is greater than the initial invested capital means a company's competitive advantage are impacting future economic profits.

1.2.8 VALUATION IN EMERGING MARKETS

Damodaran (2005) claims that operating in emerging markets and not being assured about the future of the market, the uncertainty is fairly high. Due to the uncertainty of what the market holds for its companies in the future, a long term expected growth rate becomes extremely hard to estimate.

Another input difficult to assess is the cost of debt for emerging market firms. Firstly due to not being rated, leaving to a synthetic rating (and associated costs) estimation. Secondly, this rating may be skewed in accordance to interest rates differences between the emerging market and the United States, in case of Damodaran (2005). Thirdly, one must also take in to account the country default risk level when estimating the cost of debt.

Furthermore, many studies show that the use of CAPM in these markets is not reliable. And even though the emerging market cost of capital is not relevant for a global investor (since the risk is distributed between diversified portfolios), it becomes quite important for local investors (without diversified portfolios investments) or in case of country risk premium approach application.

Fernández (2004) claims that estimating the beta for these sort of companies in accordance to the S&P 500 index is an actual error. And it is explained, based on Scholes and Williams' paper (1977), that companies which are rarely traded – being these ones the case – cannot have low calculated betas.

1.3 MAIN CONCLUSIONS

After weighting in every insight from the several approaches described in the previous chapters and analyzing the company's (on which the Thesis will be focused) financial performance and key characteristics, the methodologies to be adopted later on, in order to value financially this company and help one make the decision to buy or sell shares, or do nothing in the meantime, will be the Discounted Cash Flow (DCF) approach given that Unilever has currently positive operating cash flows and one is able to reliably estimate its future cash flows. Further on, a relative valuation will be performed as a complementary analysis to the DCF. Lastly, a Dividend Discount Model will be proposed.

1.4 FURTHER CONCERNS

1.4.1 THE TERMINAL VALUE

The terminal value is one of the most relevant parameters to have into consideration when valuing a company. When estimating future cash flows, due to the uncertainty of those values, one needs to choose a time frame and then calculate the terminal value that reflects the value of the firm at that point (Damodaran, 2002). Afterwards, it is assumed the firm will be facing a steady-state phase with a constant growth rate, giving the opportunity for firms to reinvest some of their cash flows back into new assets – Return on Invested Capital (ROIC).

Damodaran (2002) argues stable growth rate ought to reflect the size of the firm (since smaller ones have more potential to grow within the market), existing growth rate and excess returns (high returns on capital and high excess returns in the current period means sustainability for the next years), and the magnitude and sustainability of competitive advantages (firms are able to maintain high growth for longer periods, in case of being in a market with high barriers to entry and with sustainable competitive advantages).

One of the assumptions an analyst should take carefully into account is the time period. Koller et al. (2005) claims that one should choose a time frame of 5 to 7 years while forecasting future cash flows until the terminal value, however it is sometimes quite difficult to determine when a company reaches that steady-state.

$$\text{Terminal Value} = \frac{CF_n \times (1+g)}{(k-g)} \quad (10)$$

Where:

CF_n – cash flow at year n

g – constant growth rate after terminal value

k – discount rate

Several approaches may be adopted in order to estimate the terminal value (Damodaran, 2002). The first one is through the liquidation of the firm's assets in the terminal year and estimating the value of assets a company has been able to accumulate until that point and how much others are willing to pay for them. This estimation needs to be based upon the earning power of the assets since their book value is not enough to capture the value as a whole. Secondly, one can also apply a multiple to earnings, revenues or book value to estimate the value in the terminal value, assuming the firm as a growing concern at the time of the terminal value estimation. Finally, the third one assumes a steady-state phase by using a perpetual model.

1.4.2 THE PRESENT VALUE OF THE INTEREST TAX SHIELDS

One benefit for firms from bearing debt is being able to have tax shield since debt is tax-deductible. Therefore, seen as a benefit, it is added to the company's value. However, there are also costs attached to bearing debt (for instance, distress costs). Thus, one should only finance with debt when the benefit of tax shield is higher than these costs. As a result, a firm ought to decide which level of debt it should take. Graham (2001) claims firms with greater liquidity may have lower borrowing costs leading to holding more debt.

The present value of the interest tax shields (PVITS) is one of the main parameters of an Adjusted Present Value (APV) valuation.

$$PVITS_n = \frac{D \times r_d \times T}{(1+r_d)^n} \quad (11)$$

The formula showed above is according to Myers' paper (1974), who also introduced the APV method. It is believed the discount rate to be the same as the cost debt, since the risk of tax saving is ought to be equal to the risk of bearing debt. Nevertheless, there is no consensus on which discount rate to use. In fact, Fernández (2004) claims this is only reasonable when a company does not increase its debt levels. Otherwise, the accurate formula would have to be:

$$PVITS_n = \frac{D \times r_u \times T}{(1+r_u)^n} \quad (12)$$

Cooper et al. (2005) argues that this assumption should be based on the capital structure choice. In case a firm's debt is growing with the business, according to a target debt-to-value ratio, one should bear in mind that the risk of tax shields ought to be equal to the unlevered cost of equity. On the other hand, if it is not growing, that risk should be the same as the cost of debt.

1.4.3 THE MARKET RISK PREMIUM

The market risk premium (MRP) is an important parameter to calculate both the cost of capital and the cost of equity. It is perceived as the difference between the actual returns on stocks and the actual returns of the default free government bond.

Overall, a firm bears a risk while investing and the riskier those investments are, the higher the expected returns should be. The expected returns ought to reflect the risk-free rate and an incremental return which will compensate one according to a specific level of risk (Damodaran, 2002).

The so called compensation is due to the risk taken under certain firm (internal and diversifiable risk) and market's (external and non-diversifiable risk) characteristics. Even having these two conditions, there is no consensus on how to estimate risk premiums, since different analysts take

into consideration different assumptions. These assumptions may vary from a time period perspective (short or long-time horizons), the risk-free security chosen (treasury bills or treasury bonds), and the way average return on stocks, treasury bills or treasury bonds are computed (through an arithmetic or a geometric mean).

1.4.4 LEVERED AND UNLEVERED BETA

In order to assess the volatility of a company related to its market, one uses betas. Since firms bear debt in their capital structure, those betas need to be adjusted according to their level of leverage. As referred in a previous chapter, since debt is tax-deductible, it brings tax benefits to a firm. Therefore, a levered beta has less volatility than the unlevered one.

$$r_i = \alpha + \beta \times (r_m - r_f) \quad (13)$$

Damodaran (2002) considers the formula above as the simplest way to estimate a beta, using a regression of the asset's returns on the returns of the market portfolio. Also, the formula shows that when the beta is greater than 1, the company ends up being riskier than the market. Whereas, when it is lower than 1, the company is less risky.

Nevertheless, this approach still needs a few improvements, such as related to the market portfolio – Damodaran (2002) believes that using market weighted indexes should bring more accurate results –, the time period (since using longer time frames brings a higher number of observations) bearing in mind a company may not stay steady for the period of time chosen, and the return intervals. The latter is discussed on Damodaran's paper, stating that for firms listed for more than 3 years, monthly data should be enough to estimate the beta.

According to Fernández (2007), though a firm may expect to suffer changes in its capital structure but remaining a fixed book-value leverage ratio, one should take it into consideration while calculating its levered beta:

$$\beta_L = \beta_u + (\beta_u - \beta_d) \times (1 - t) \times \frac{D}{E} \quad (14)$$

Furthermore, taking the same perspective as the previous but remaining now a market-value leverage ratio, the formula changes to:

$$\beta_L = \beta_u + (\beta_u - \beta_d) \times \frac{(1-t) \times K_d}{1+K_d} \times \frac{D}{E} \quad (15)$$

1.4.5 COST OF EQUITY

When investing in a firm's equity, investors need to be assured a return and somewhat protected. This protection is called cost of equity.

$$K_e = r_f + \beta_L \times [E(r_m) - r_f] + e \quad (16)$$

The formula above is the result of Capital Asset Pricing Model (CAPM) and is the most common approach when estimating the cost of equity – Damodaran (2001) and Koller et al. (2005). In addition, this method is based on Markowitz's study on diversification and portfolio theory.

1.4.6 COST OF DEBT

The cost of debt is referring to the cost a company ought to bear when borrowing money from other parties. Damodaran (2001) argues that the cost includes the default risk (considering the probability of a company defaulting) and the level of interest rates in the market. Furthermore, this parameter is used on an after-tax basis, since interest payments are tax deductible.

To compare the pre-tax cost of debt to the yield to maturity (YTM) of the company's long-term bonds is usually considered as the common technique. However, it is not flawless, given that there are not as many firms with a liquid and widely traded long term straight bonds (Damodaran, 2001).

For publicly traded companies, a more robust value can be achieved by estimating a default spread based on the rating of the firm. Damodaran also suggests using a median rating for the firm, given that a company may hold several different bonds. On the other hand, in case of a not traded firm, since there is no public information and no default spread, one may analyze past borrowing situations and instantly presume a rating based on the spreads previously paid. Furthermore, one can estimate the ratings according to the interest coverage ratio:

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Expenses}} \quad (17)$$

Damodaran (2001) argues that with the formula above, one can interpret the respective rating and estimate the cost of debt.

2 UNILEVER

To follow the purpose to this Thesis, all the inputs will be supported by Unilever N.V. and PLC financial data taken from its Annual Report of 2013 (and previous ones) and private information within the company.

2.1 BRIEF PRESENTATION

Unilever was founded in 1930 by two companies focused at the time on soap and margarine production – initially called Lever Brothers and Margarine Unie, respectively. Nowadays, it has a portfolio of 14 brands selling yearly € 1 billion and emerging markets are accountable for a little more than half of the entire business (57%), being considered one of the world’s leading fast-moving consumer goods companies. It is a co-headquartered company, having its corporate HQ – Unilever N.V. – in Rotterdam (Netherlands) and its production HQ – Unilever plc – in London (England).

Its core ambition is to “create a better future every day, with brands and services that help people feel good, look good and get more out of life”⁽²⁾. Therefore, it has a very wide brand portfolio as it follows:

ILLUSTRATION 1 – UNILEVER’S BRAND PORTFOLIO (2013)



Source: Unilever’s webpage

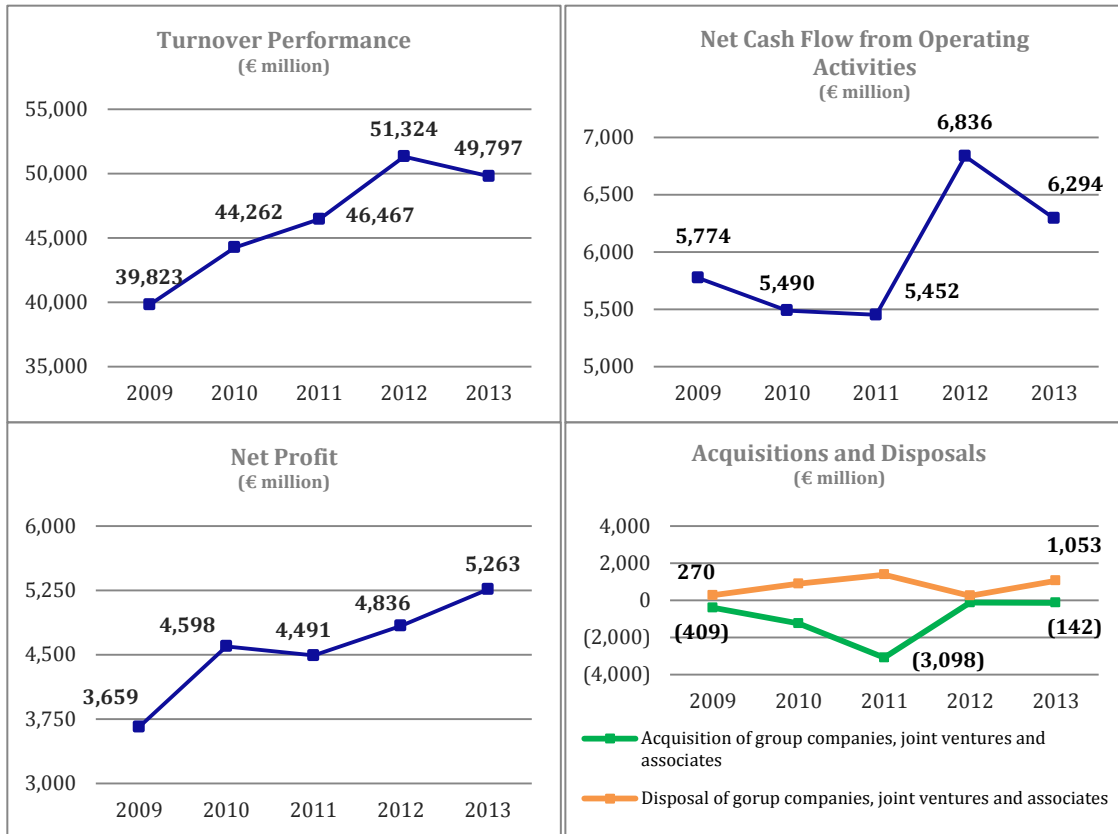
Though the brand portfolio has the above appearance, this past year Unilever has suffered a few structural changes, such as the recent sale of Slim-Fast brand to Kainos Capital this past July but remaining with a minority stake in the business.

However, on the bright side, Unilever has been granted with several awards at the Cannes Lions International Festival of Creativity of 2014, being considered once again the most awarded advertiser.

² Source: <http://www.unilever.com/aboutus/introductiontounilever/ourlogo/> (Unilever’s global webpage)

Moreover, Unilever has been continuously investing in more sophisticated and innovative processes and products to share with its consumers, for instance the introduction of sustainable algal oils in the formula of Lux’s soaps and the pursuit of safeguarding future tea supply using 21st century plant breeding methods that will result in improved and sustainable tea varieties of tomorrow.

ILLUSTRATION 2 – UNILEVER’S KEY PERFORMANCE INDICATORS (2009-2013)



Source: Unilever’s Annual Reports from 2009 until 2013 and own calculations

From the data showed above, it is perceptible that Unilever has overcome the economic crises. In the past five years, Unilever has shown an annual growth rate of 9.51% on net profit, given that its turnover has increased yearly at a pace of 5.75% and it has been able to take full advantage of its operations since 2011. In addition, the structural changes in terms of acquisitions and disposals of group companies, joint ventures and associates can prove the company has been somewhat investing somewhat, reaching its main value of acquisitions in 2011 (about €3 billion) and profiting few more than €1 billion as disposals last year.

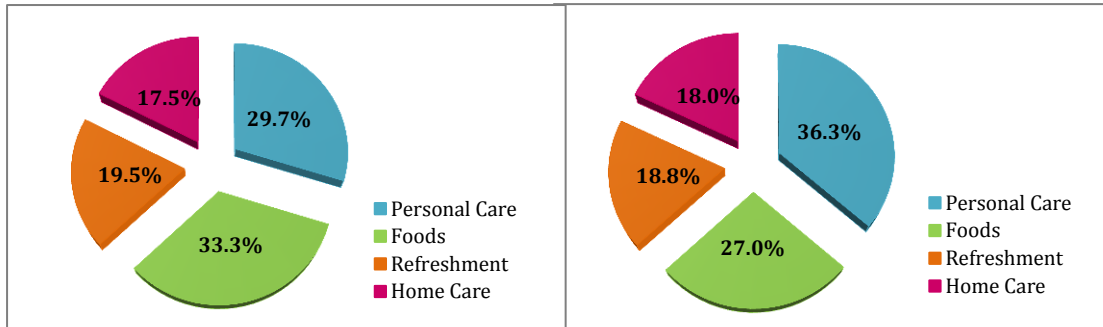
For the purpose of the current Academic Thesis, an equity valuation will be performed on Unilever NV. Therefore, this company will be represented by its publicly traded stock in the Amsterdam Exchange Index – tickers UNA NA and AEX IND, respectively, in Bloomberg. In order to calculate weekly returns of both securities, weekly last prices were taken out from Bloomberg between July of 2009 and July of 2014 (see Appendix 1). In what concerns Unilever’s returns, they have not

suffered major fluctuations during that period, behaving almost the same as its index mainly after July of 2012.

2.2 BUSINESS SEGMENTATION

Being considered one of the most successful companies within the consumer goods market, it is relevant to discriminate the historical performance between its 4 business segments:

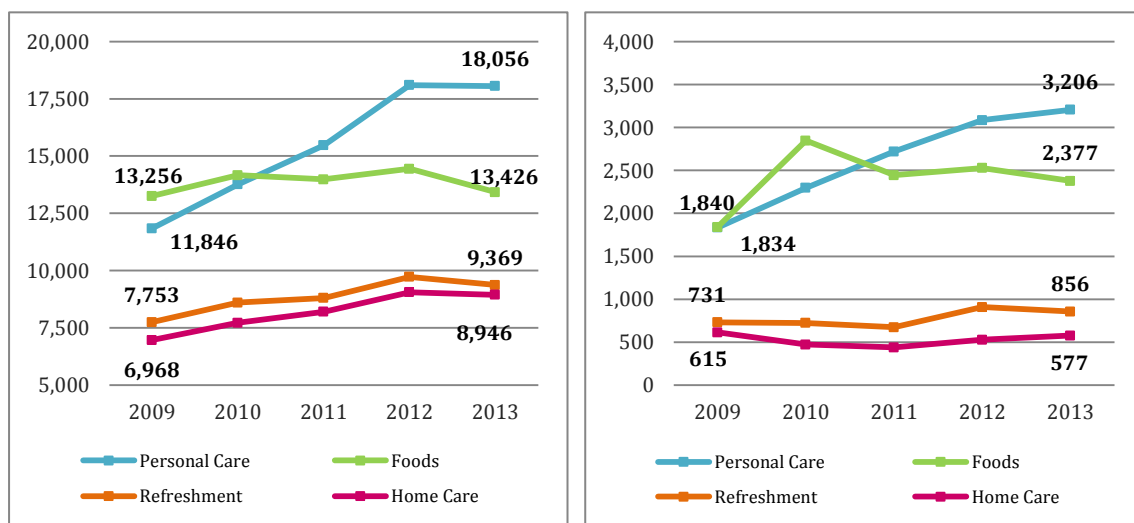
ILLUSTRATION 3 – TURNOVER DISTRIBUTION (2009 VERSUS 2013)



Source: Unilever’s Annual Reports of 2009 and 2013 and own calculations

Analyzing data of 2013, Personal Care (including sales of skin care and hair care products, deodorants and oral care products) is the most important segment given that it is accountable for 36.3% of Unilever’s turnover. Aggregating the Foods segment (including sales of soups, bouillons, sauces, snacks, mayonnaise, salad dressings, margarines and spreads), there are responsible for already 63% of total turnover. Furthermore, when the above structure to the 2009 one, there are no major differences, seeing only a somewhat growth in Personal Care and a slight decrease in Refreshment and Foods segments.

ILLUSTRATION 4 – TURNOVER AND CORE OPERATING PROFIT PER SEGMENT (€M)



Source: Unilever’s Annual Reports from 2009 until 2013 and own calculations

Regarding now absolute values (as shown in the above graphs) the Personal Care segment is the one with the most visible growth in terms of turnover and core operating profit – around 11% of annual growth rate. All the other segments, have been quite constant, mainly Refreshment (including sales of ice cream, tea-based beverages, weight-management products and nutritionally enhanced staples sold in developing markets) and Home Care (including sales of home care products, such as powders, liquids and capsules, soap bars and a wide range of cleaning products).

2.3 MAIN COMPETITORS

Regarding each business segment, Unilever faces threats as any other company. Nestlé, being the most relevant one since its brand portfolio and respective purposes reach the same market as Unilever, mainly through the sale of Nestea and Nestlé Ice Cream (Refreshment), and Maggi (competing directly with Knorr – Foods).

Furthermore, especially in Home and Personal Care industries, Unilever faces more than one player challenging its products. For instance, the Procter & Gamble Company competes through its Pantene, Head & Shoulders, Fairy and Ariel products. In addition, Henkel, even being one with a smaller brand portfolio, still fights back with its home and hair care products, such as Persil and Schwarzkopf. Beiersdorf is another one but more focused on skin care leading with its well-known Nivea products against Unilever’s Vasenol and Dove. Finally, being almost a home care focused company, Reckitt Benckiser challenges Unilever’s Skip through its brands Calgon and Finish.

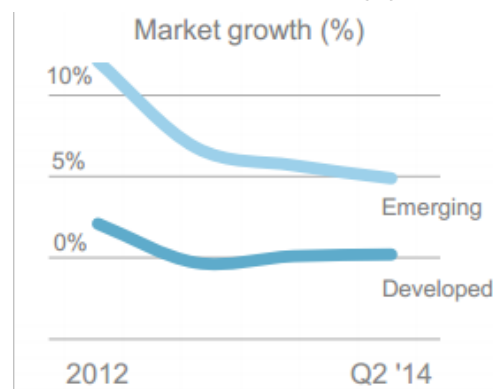
2.4 INDUSTRY INSIGHT

Consumer goods industry, where Unilever is present, is an established mature one. Given that, it is almost unreliable to dream with a large growth in turnover. Nevertheless, due to the economic crisis, consumers purchasing priorities have changed since there is more volatility and uncertainty, leading to an even slower market growth. In the first half of 2014 results presentation, Unilever also adds that

according to World Bank, the GDP growth for 2014 will decrease in a worldwide range (except Europe, which will remain at a constant growth rate – see Appendix 2) resulting in weaker economies.

Unilever also accepts the competitiveness within the industry will remain fierce in 2014, leading to a shift of resources into emerging markets and also continuing to make improvements in both processes and products. Moreover, this shift of focus in markets may fight back the lack of growth in the industry, given that it is in a mature phase.

ILLUSTRATION 5 – MARKET GROWTH (%) SINCE 2012



Source: Unilever’s H1 2014 Results Presentation

3 EQUITY VALUATION

3.1 DISCOUNTED CASH FLOW METHODOLOGY

The first Unilever's equity valuation will be performed under a Discounted Cash Flow perspective. Therefore, the following sections will bring some insight towards the assumptions chosen to forecast relevant variables.

3.1.1 MAIN ASSUMPTIONS

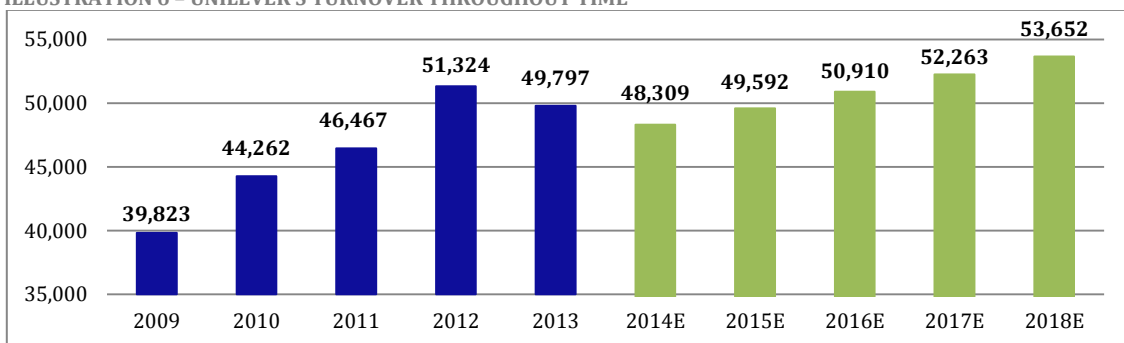
A company's strategy and managerial decisions impacts its cash flows today and in the near future. Assuming Unilever is under a going concern approach, one needs to determine when all those effects come to an end, reaching afterwards the so called terminal value in perpetuity. Thus, a time frame of 5 years is considered until the terminal value - being after all in accordance to what was referred, in a previous chapter, by Koller et al. (2005).

Moreover, in order to forecast future cash flows, a restructuring needs to be done in the Consolidated Income Statement taking into considerations several assumptions as they will be explained in the following sub-sections.

3.1.1.1 TURNOVER

Since Unilever is a fast-moving consumer goods company, the inflation in consumer prices will be the main variable impacting its turnover. In the 3 years following the economic recession, the annual inflation (worldwide values taken from World Bank Data, since Unilever is a global player) has increased reaching its maximum in 2011 at 5.02%. Successively, it has been re-adjusting itself decreasing to 2.66% last year (see Appendix 3 for historical and future inflation). Since, the era before and after the economic crisis are not the same, I will not take into account the premature values and assume the inflation will remain at a constant rate of 2.66% per year.

ILLUSTRATION 6 – UNILEVER'S TURNOVER THROUGHOUT TIME



Source: Unilever's Annual Reports, World Bank Data (inflation rates) and own calculations

However, in a more critical manner, the inflation does not have a major impact on consumer behavior in terms of purchasing, given that all products are non-durable ones (promptly consumed) which the price does not have an influent power. Consequently, Unilever might not suffer any impact in terms of volume sales. Nevertheless, given that the consumer goods market is already a mature one, it becomes more difficult for a company to grow.

Furthermore, in 2010, Unilever decided to cut its prices becoming now in need to increase its profit margin. As a result, even though it is in demand to decrease costs, it will behave in accordance to the inflation behavior and increase its prices across every business segment starting in 2014. In fact, in the results for the first half of 2014, the increase in prices has contributed positively at 1.7% for total turnover. Also, the prices change has not negatively affected the volume sales. Instead it has increased 1.9% from last half year.

In addition, having a worldwide presence, exchange rates affects greatly Unilever's turnover. The following table shows the effect exchange rates have on underlying sales growth (USG) facing the last homologous year:

ILLUSTRATION 7 – EFFECT OF EXCHANGE RATES (%) ON USG

	2013 vs. 2012	2012 vs. 2011	2011 vs. 2010	2010 vs. 2009	2009 vs. 2008
Effect of exchange rates (%)	(5.9)	2.2	(2.5)	7.3	(2.7)

Source: Unilever's Annual Reports.

This effect is inconsistent throughout the years only assuming positive impacts every other year and not in the same value. Since 22% of Unilever's business comes from the United Kingdom, the Netherlands and the United States, a special attention was drawn on the relationship between GBP, EUR and USD. The Appendix 4 shows that the value of EUR facing both GBP and USD has been unstable since the last 5 years, confirming the impact on Unilever's turnover. Consequently, this variable is extremely difficult to predict in the future, and is not viable to be considered in the analysis.

Furthermore, since first half results of 2014 are already public by the time of the valuation, the turnover behavior during this period will be taken into account as an insight until the end of this year – -5.5% when comparing to the first half of 2013, mainly due to currency movements. As a result, the turnover growth for 2014 will not only depend on the inflation but also on the latter value, leading then to a negative growth of -2.99%. Regarding the following years, it is assumed that Unilever will slowly recover at a constant inflation rate – 2.66%.

ILLUSTRATION 8 – TURNOVER GROWTH RATES (2014-2018)

	2014	2015	2016	2017	2018
Turnover Growth (%)	(2.99)	2.66	2.66	2.66	2.66

Source: Own calculations.

3.1.1.1.1 TURNOVER ACCORDING TO BUSINESS SEGMENT

The following table represents the distribution of Unilever’s turnover within its 4 segments. The last column shares the compound annual growth rate of each segment’s turnover from 2009 until 2013.

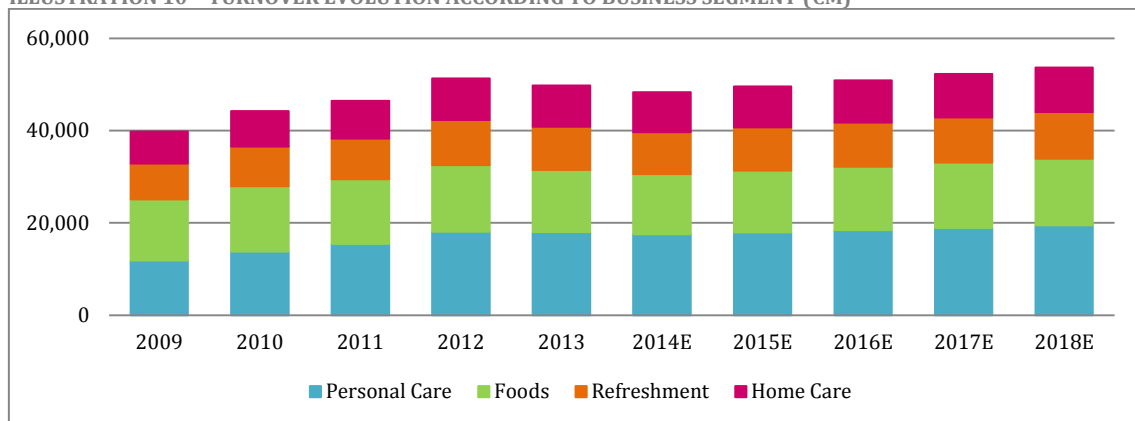
ILLUSTRATION 9 – TURNOVER EVOLUTION ACCORDING TO BUSINESS SEGMENT (%)

	2009	2010	2011	2012	2013	CAGR (Absolute values)
Personal Care	29.7%	31.1%	33.3%	35.3%	36.3%	11.1%
Foods	33.3%	32.0%	30.1%	28.1%	27.0%	0.3%
Refreshment	19.5%	19.4%	18.9%	19.0%	18.8%	4.8%
Home Care	17.5%	17.5%	17.7%	17.6%	18.0%	6.4%

Source: Unilever’s Annual Reports and own calculations.

By analyzing Unilever’s turnover structure with its segments, there has been a movement of “strength” from Foods to Personal Care segment, being still the two most profitable segments.

ILLUSTRATION 10 – TURNOVER EVOLUTION ACCORDING TO BUSINESS SEGMENT (€M)



Source: Unilever’s Annual Reports and own calculations.

The transformation showed in the graph is due to the inflation growth, impacting Unilever as a whole. The assumption to forecast each segment’s turnover is based upon the stability in the turnover distribution already present in 2013 (showed in the table above – 2013 data), meaning there will be no change in the future.

3.1.1.2 COST OF SALES

The assumptions behind the cost of sales forecasting is the same as the one used on turnover – inflation annual rate according to consumer prices. In addition, to forecast the cost of sales, it will be seen as a percentage of the turnover since it has remained somewhat constant (between 58% and 60%) since 2009. Given that 2009 may yet share some residuals from the economic recession, an assumption was made that the cost of sales for future years would be the average of those

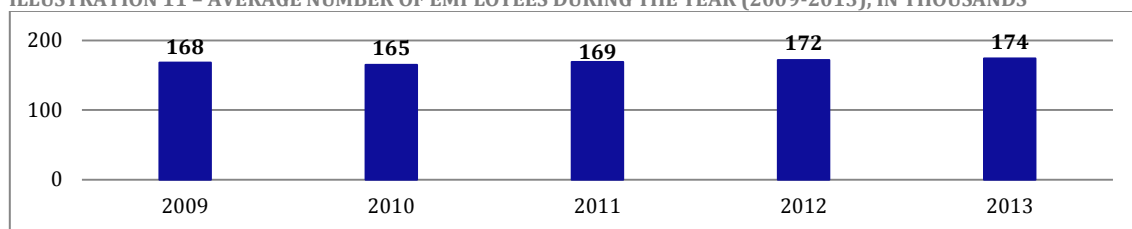
percentages afterwards 2010 (inclusive). At the end, it was reached a fraction of 59.3% of total turnover, used as a constant rate for perpetuity.

Finally, in what concerns the distribution of this variable according to each business segment, the proportions are the same used on the turnover.

3.1.1.3 SELLING AND ADMINISTRATIVE COSTS

The assumption assumed on forecasting the selling and administrative costs was based upon the average number of employees in the company, as it follows:

ILLUSTRATION 11 – AVERAGE NUMBER OF EMPLOYEES DURING THE YEAR (2009-2013), IN THOUSANDS



Source: Unilever's Annual Reports.

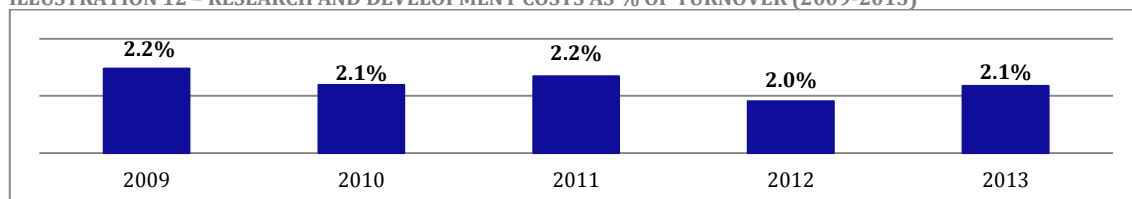
The graph shows that the staff structure has not suffered any change and its CAGR proves it with 0.88%. Looking at total amounts of selling and administrative costs, I was able to reach unit costs. In this case, the costs per employee have been growing at a yearly rate of 2.01% (CAGR). Using this value, I was able to estimate future unit costs as well for the average number of employees in Unilever, until 2018. Then multiplying these two values led me to the total expenses on selling and administrative costs (see Appendix 6 for restructured income statement).

Since no information regarding this matter accordingly to each segment was shared, the allocation will be performed according to the weight each segment's gross profit has on the total gross profit.

3.1.1.3.1 RESEARCH AND DEVELOPMENT COSTS

In what concerns the research and development costs, already included in the selling and administrative expenses, they have always been around 2% of Unilever's turnover. Therefore, this proportion will remain constant towards perpetuity, having consequently no impact on the valuation.

ILLUSTRATION 12 – RESEARCH AND DEVELOPMENT COSTS AS % OF TURNOVER (2009-2013)



Source: Unilever's Annual Reports and own calculations.

3.1.1.4 NET FINANCE COSTS

Regarding net finance costs, these include finance income deducting afterwards finance costs, and pensions and similar obligations. Finance income is estimated assuming that each historical average weight on total earnings before interests and taxes (EBIT) will remain constant throughout time – 1.49%. Whereas, being finance costs more related to the book value of debt, they will change assuming an average weight on total liabilities from last 5 years (1.79%) and liabilities will change according to assumptions made to its items (while estimating net working capital and provisions) – see Appendix 5 for further details.

However, pensions and similar obligations will be dependent on the average number of employees during the year (following the same rationale explained when calculating the selling and administrative costs).

Also, when allocating these values to each segment, it is assumed that both finance income and costs will be proportional to the weight each segment's EBIT has on total EBIT. On the other hand, since no information is shared regarding the number of employees per business segment, pensions and similar obligations are estimated according to the weight of selling and administrative costs each one has on the whole value (see Appendix 6 for restructured income statement of each business segment).

3.1.1.5 OTHER RESULTS FROM NON-CURRENT INVESTMENTS

In what concerns other results from non-current investments, the behavior is quite difficult to predict and calculating the weight this item has on EBIT (Earnings before Interests and Taxes) confirms it. Leaving behind the year 2009 (given that the weight of 7.3% is too different from the following years), the historical average of this weight is 0.58%, which will be assumed as a constant percentage throughout time. Also, the same assumption is used while allocating values in each Unilever's segments (considering yearly 0.58% of each EBIT).

3.1.1.6 SHARE OF RESULTS OF JOINT VENTURES & ASSOCIATES

Unilever achieves gains through its participations in joint ventures and associates, needing to state those incomes (or losses) in its Income Statement. In order to forecast these, it was assumed the share of results would depend on the gross profit. Thus, an average of this proportion was calculated using shares of net profits from 2009 until 2013, reaching an average percentage of 0.59%. Consequently, future shares will be 0.59% of estimated gross profit of each year.

The allocation into each business segment is provided in the Annual Report, so the corresponding estimation will be done with last year's weight of the share of these results on Unilever's total value.

3.1.1.7 INCOME TAXES

As stated in Unilever’s Annual Report of 2013, its “effective tax rate remained consistent with 2012 at 26%. Our longer term expectation for the tax rate remains around 26%”. Therefore, the assumption will be made in line with what is expected from the company.

3.1.2 FREE CASH FLOW TO THE FIRM

In the Literature Review, it was mentioned that the enterprise value of a company would be the discounted cash flows of the free cash flow to the firm (FCFF) of each year, following the formula:

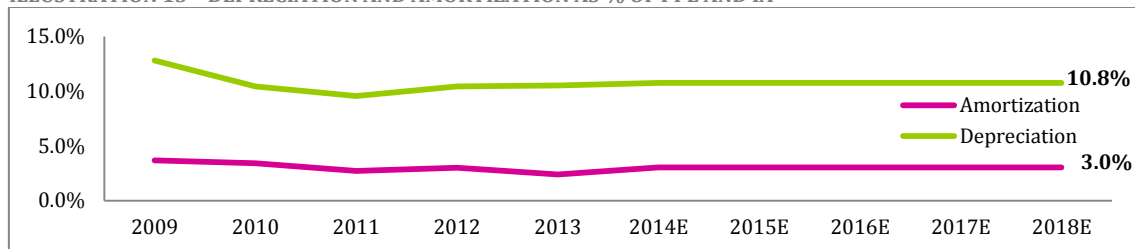
$$\begin{aligned} \text{FCFF} = & \text{EBIT} - \text{taxes on EBIT} + \text{Depreciation and Amortization} + \Delta\text{Provisions} & (18) \\ & - \Delta\text{Net Working Capital} - \text{Capital Expenditures} \end{aligned}$$

In the following sub-sections, the assumptions used on these variables will be enlightened (see Appendix 8 for complete information regarding calculation of FCFF).

3.1.2.1 DEPRECIATION AND AMORTIZATION

The variables to take into consideration are Depreciation of Property, Plant and Equipment (PPE) and Amortization of Intangible Assets (IA). Therefore, the tendency of these two will be in accordance to historical average of the weight both depreciation and amortization have on PPE and IA. Given that, depreciation is estimated to be 3.0% of forecasted PPE and amortization with 10.8% of IA. In terms of disposals and acquisitions, Unilever is constantly moving and since 2014 is not being an easy one Unilever has sold a few brands in order to not affect so greatly its profits, leaving all open for 2015 and further years. Being that said, future values for both PPE and IA will behave according to Unilever’s turnover.

ILLUSTRATION 13 – DEPRECIATION AND AMORTIZATION AS % OF PPE AND IA



Source: Unilever’s Annual Reports (Balance Sheet and Income Statement) and own calculations.

The disaggregation into business segments is in accordance to the weight each one’s depreciation and amortization had last year on the total amount.

3.1.2.2 PROVISIONS

Provisions mentioned in Unilever's Annual Report of 2013 are for legal (related to competition cases in Brazil), disputed indirect taxes (the largest amounts are regarding to disputes with Brazilian authorities), and restructuring between other matters. Furthermore, Unilever believes all the issues relating to these restructuring, legal and other provisions will be resolved within the next five years. So, in order to estimate future values, a historical average was calculated using constantly the last 3 years.

Since no information is published referring the amount provisions correspondent to every business segment, and even though the provisions are not directly related to turnover, it is assumed the allocation is according to the turnover weight each one has on total turnover.

3.1.2.3 NET WORKING CAPITAL

In what concerns investments needed to working capital, several items from the Balance Sheet (Annual Reports from 2009 to 2013), starting with values of inventories, trade and other current receivables, and current tax taxes, and then subtracting the values of trade payables and other current liabilities, and current tax liabilities.

To forecast these values in 2014-2018, the rationale will be according to the historical average Days Sales Outstanding (DSO), Days Payables Outstanding (DPO) and Days Sales of Inventory (DSI) – assuming 365 days in a year. The first one measures the number of days, on average, a company goes by until collecting revenue after a sale has been made, thus current tax assets, and trade and other current receivables are items included in the measure. Unilever waits, on average, 35 days until receiving. Secondly, DPO stands for how long a company delays its invoice payments from suppliers, for instance. Therefore, this indicator will take into account current tax liabilities, and trade payables and other current liabilities. In this case, Unilever delays these payments, on average, 152 days. Finally, the last indicator – DSI – reflects the period time needed for a company to turn its inventory into sales. Consequently, the value of inventories will be faced up with a firm's turnover, leading Unilever towards an average of 56 days.

In conclusion, the forecast of working capital will follow a conservative approach by assuming the above indicators will remain constant throughout time (see Appendix 7 for further details).

Regarding the allocation in Unilever's business segments, it will be according to the turnover and cost of sales estimated for each one multiplied by each driver.

3.1.2.4 CAPITAL EXPENDITURES

Unilever's Annual Report of 2013 states the net capital expenditures reached € 2.0 billion reflecting the investment made in capacity in order to support its growing business. Furthermore, it refers this value corresponds to 4.1% of total turnover, believing this will be broadly unchanged. For that reason, this percentage will be considered to remain constant throughout time.

Once more, the distribution between business segments will be done according to each turnover's taking into consideration that 4.1% of net capital expenditures.

3.1.3 WEIGHTED AVERAGE COST OF CAPITAL

As previously referred in the Literature Review chapter, the weighted average cost of capital (WACC) is calculated as follows:

$$WACC = \frac{D}{V} \times K_d \times (1 - t) + \frac{E}{V} \times K_e \quad (19)$$

At the end, a WACC was estimated at 6.29%. In this chapter, all estimations and calculations in order to calculate this rate will be referred and explained.

3.1.3.1 COST OF DEBT

To calculate the cost of debt, one should analyze a company's bonds outstanding, bearing in mind the amount outstanding and yield of each bond at the time of valuation. In this case, the same analysis was developed based on 24th July of 2014. Through Bloomberg, it was found that this ticker has currently 19 issued bonds outstanding but not all directly referring to the Unilever NV (referring to other countries' Unilever). Nevertheless, all bonds will be taken into consideration in the cost of debt calculation.

ILLUSTRATION 14 – UNILEVER'S BULLET PORTFOLIO

Issuer Name	Coupon (%)	Issue Date	Maturity	Rating (S&P)	Mty Type	Amount Outstanding (€k)	Yield	Weight
Alberto-Culver Co	5.150	21-05-2010	01-06-2020	A+	BULLET	111,397	2.551%	1.48%
Bestfoods	7.250	18-12-1996	15-12-2026	A+	BULLET	222,793	3.690%	2.96%
Bestfoods	7.000	24-10-1997	15-10-2017	A+	BULLET	111,397	1.521%	1.48%
Bestfoods	5.600	24-10-1997	15-10-2097	A+	BULLET	96,247	5.870%	1.28%
Bestfoods	6.625	24-03-1998	15-04-2028	A+	BULLET	185,661	3.696%	2.47%
Unilever Capital Corp	5.900	12-11-2002	15-11-2032	A+	BULLET	742,644	3.550%	9.86%
Unilever Capital Corp	4.800	12-02-2009	15-02-2019	A+	BULLET	556,983	1.888%	7.40%
Unilever Capital Corp	2.750	10-02-2011	10-02-2016	A+	BULLET	371,322	0.453%	4.93%
Unilever Capital Corp	4.250	10-02-2011	10-02-2021	A+	BULLET	742,644	2.486%	9.86%
Unilever Capital Corp	0.450	02-08-2012	30-07-2015	A+	BULLET	334,190	0.244%	4.44%
Unilever Capital Corp	0.850	02-08-2012	02-08-2017	A+	BULLET	408,454	1.124%	5.42%
Unilever Capital Corp	2.200	06-09-2013	06-03-2019	A+	BULLET	556,983	1.853%	7.40%
Unilever NV	3.375	29-09-2005	29-09-2015	A+	BULLET	750,000	0.237%	9.96%
Unilever NV	3.500	17-03-2008	17-03-2015	A+	BULLET	288,045	0.125%	3.82%
Unilever NV	1.750	05-08-2013	05-08-2020	A+	BULLET	750,000	1.053%	9.96%
Unilever NV	2.950	27-02-2014	27-02-2017	A+	BULLET	36,144	2.630%	0.48%
Unilever PLC	4.000	19-03-2009	19-12-2014	A+	BULLET	443,240	0.721%	5.89%
Unilever PLC	4.750	17-06-2009	16-06-2017	A+	BULLET	506,560	1.703%	6.73%
Unilever PLC	2.000	26-03-2014	19-12-2018	A+	BULLET	316,600	2.079%	4.20%

Source: Bloomberg (at 24th July 2014).

The yield values correspond to the mid yield to maturity at the date already referred. And in order to reach an overall yield for all bonds, a weighted average was calculated based on the amount outstanding (after converting every amount to EUR) of each bond. At the end, it was reached an average of 1.692%, being then considered the cost of debt, since the yield rate regards future payments of bonds issued. Moreover, the after-tax value will simply be taking the tax effect (effective rate at 26%), leading then to a rate of 1.252%.

Furthermore, looking at Standard & Poor's credit rating based on these bonds, the attribution of an A+ provide evidence that the cost of debt can be that low, since according to the rating Unilever is considered a company with a strong capacity to meet financial commitments. In the Annual Report, it is also stated that Unilever continues to aim to maintain a strong single A credit rating on a long-term basis.

3.1.3.2 COST OF EQUITY

In what concerns the cost of equity, the CAMP formula will be used as it follows:

$$K_e = r_f + \beta_L \times [E(r_m) - r_f] \quad (20)$$

In the following sub-sections, every parameter will be explained and how their values were estimated, in order to reach a cost of equity of 6.78%.

3.1.3.2.1 THE RISK FREE RATE

As referred before, Unilever is a global player, being therefore present in many countries gathering turnover in each one. Almost 8% of Unilever's turnover comes from Netherlands and the United Kingdom (main HQ for management and operations, respectively). The value may seem quite small, but considering the geographical area of both countries, it can be seen as an achievement.

Therefore, when choosing the risk free rate, government bonds from Netherlands and the United Kingdom were considered. When in comparison the latter is not the easiest one to use due to the discrepancies in currency, and the Netherlands' debt is rated by S&P as AA+ which cannot be considered as well as risk free. Consequently, looking at a broader perspective, it is also known that 27% of Unilever's turnover comes from Europe. Having that said, it can also be considered in this Thesis the well know German Bunds – frequently used as risk free in Europe, and rated as AAA by S&P's. Given that, the risk free rate will be represented by the Germany Governments 10-Year Bond Index (ticker GDBR10 Index).

Using Bloomberg, weekly data since 2009 was provided – using the same time frequency when calculating returns on Unilever's shares price. Since the yields calculated from this bond are annualized values, there is a need to compound to weekly frequency. Given that the financial

market prices on Fridays, the nearest date considered is 18th July of 2014. Thus, the risk free rate is 0.022% (annualized as 1.155%).

3.1.3.2.2 MARKET RISK PREMIUM

After the calculation of the risk free rate, the following parameter is the market risk premium. To do so, must compare this rate to the returns of the market. Since Unilever NV is publicly traded in the Amsterdam Exchange Index, this one will be considered as the proxy for the market. Yet again, weekly data was taken from Bloomberg for both variables. The historical average of the market risk premium is of 0.150%, corresponding to an annualized rate of 8.12% and will be assumed to remain constant in the future.

In addition, according to Damodaran's data, Netherlands has a zero country risk premium which means there is no impact on the final value of market risk premium.

3.1.3.2.3 LEVERED BETA

After having the market risk premium calculated, the next step is to determine the excess return (returns from the security deducted by the risk free rate). Having both variables, a CAPM regression is performed in order to reach an estimated levered beta. The market risk premium is the independent variable (x) and the excess returns correspond to the dependent variable (y). Using the slope function from Excel, a beta was estimated, reaching a raw beta of 0.539 and an adjusted value of 0.693 (adjusted R² of 0.349). The adjustment was made by the assumption of having some statistical bias and therefore it needs to be corrected (two thirds of raw beta and one third of the market beta – 1). The last value means that the movement of the asset is generally in the same direction as the market but in a slower pace – only grows 69.3% when the market grows 100%. Moreover, comparing with the values obtained from Bloomberg, the differences are insignificant which confirm the estimated ones (see Appendix 9 for the comparison).

3.1.3.3 CAPITAL STRUCTURE

The capital structure used in this context (to calculate WACC) ought to be market values. Consequently, the total values of equity and debt demonstrated in the Balance Sheet are of no use.

Using the bonds list showed previously while estimating Unilever's cost of debt, it was possible to also assess its market value of debt. Firstly, for each bond all values were converted to the currency used in the Annual Reports – EUR. In order to calculate the total amount issued, it was only needed to divide the amount outstanding by the issue price. Then, using the current price at 24th July of 2014 and multiplying it by the previous amount, the current value of each bond was estimated.

Since debt is based on the bond portfolio, its market value corresponds to the sum of each bond's current value – €8,017 million.

Regarding Unilever's market value of equity, one must simply bear in mind the number of common shares (taking shares issued and deduct the treasury shares of NV and PLC's – about 2,840 million shares outstanding) and the last closing price of this security in 2013 – €29.28. Given that, Unilever's market capitalization in 2013 is €83,156 million.

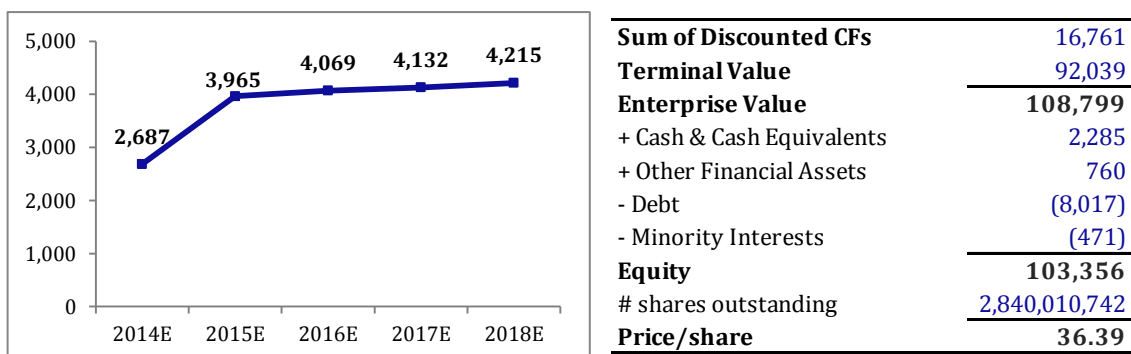
Lastly, its enterprise value will be the sum of the market values of debt and equity, corresponding to €91,173 million, being separated into 91.2% and 8.8% according to Unilever's market capitalization and debt, respectively.

3.1.4 DCF VALUATION OUTPUT

Since Unilever is a global company, the growth rate assumed in the terminal value shall not be greater than the global economy growth. Given that, the world nominal GDP growth rate (taken from World Bank data for 2013) of 2.19% would be the higher growth rate to take into account. However, since the consumer goods industry is already at a mature phase, it would be imprudent to assume a company such as Unilever could grow at this pace. As a result, a discount of 25% will be made, assuming then a growth rate of 1.64% for the terminal value. In what concerns the assumption behind this discount, a sensibility analysis will be conducted further on this chapter assuming the impact on the valuation when incurring changes in the growth rate.

The following graph illustrates the forecast of Free Cash Flow to the Firm (FCFF) until 2018. If comparing the value in 2014 to the previous one in 2013, a somewhat large variation is found given that for 2014 it was assumed a not so positive perspective in turnover (as referred in the Turnover section in DCF valuation). Nevertheless, the company will recover and grow reaching €4,215 million at the end of 2018.

ILLUSTRATION 15 – UNILEVER FCFF FORECAST (2014-2018) AND DCF OUTPUT (€M)



Source: Own calculations.

Afterwards, computing the WACC rate into these future cash flows (CFs), a discounted value was estimated at €16,761 million. Needing now only to add the terminal value – using the formula showed in the Literature Review – of €108,799 million in order to have an estimation of Unilever's Enterprise Value.

The above table (Illustration 15) gives all the items needed in order to finally calculate a price per share. And since, an analysis was conducted for each business segment, at the end summing all parts should lead to the enterprise value indicated on the table. In conclusion, taking every assumption and future events, Unilever is priced at €36.39 per share.

Since relevant variables used on this model may differ in time due to unforeseeable events, a sensitivity analysis is prepared in order to identify the impact a change of 5% in WACC and growth rates have on the estimated price per share.

ILLUSTRATION 16 – SENSITIVITY ANALYSIS ON UNILEVER'S ESTIMATED PRICE PER SHARE

g WACC	5.40%	5.68%	5.98%	6.29%	6.61%	6.94%	7.29%
1.41%	41.80	39.26	36.93	34.77	32.87	31.11	29.47
1.48%	42.54	39.91	37.49	35.27	33.31	31.50	29.81
1.56%	43.35	40.61	38.11	35.81	33.79	31.92	30.18
1.64%	44.24	41.39	38.78	36.39	34.30	32.38	30.59
1.72%	45.17	42.19	39.48	37.00	34.84	32.85	31.00
1.81%	46.19	43.07	40.24	37.66	35.42	33.36	31.45
1.90%	47.32	44.04	41.07	38.38	36.05	33.91	31.94

Source: Own calculations.

The above table demonstrates that when considering a change of 5% in the growth rate (keeping unchanged the WACC at a rate of 6.29%), the price per share changes about €0.60. On the other hand, when it is inflicted in the WACC an increase of 5% (remaining the growth rate constant), the price decreases around €2. Whereas, if WACC decreases 5% (5.98%) an increase in price of €2.39 can be observed.

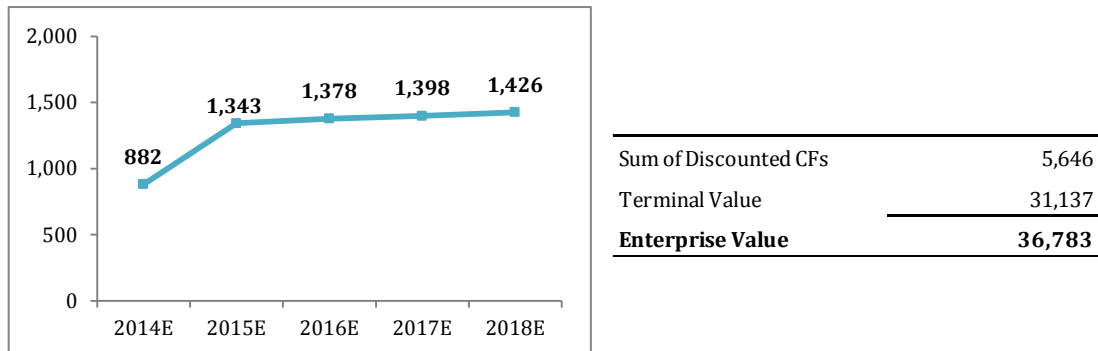
The following sections will share the input of each business segment on the enterprise value.

3.1.4.1 PERSONAL CARE SEGMENT

Taking into consideration every assumption made in the previous chapters regarding Unilever's business segments, an enterprise value was estimated for the Personal Care segment. The following graph illustrates a positive growth for FCFF of Personal Care. Discounting these CFs at WACC rate (6.29%) will sum up to €5,646 million. Moreover, this segment has a terminal value of €31,137 million.

All together, the Personal Care segment contributes to Unilever's total enterprise value with €36,783 million, being the strongest segment representing about 33.8% as expected from the beginning since it was the biggest segment in 2013 and an assumption was made that it would remain so.

ILLUSTRATION 17 – PERSONAL CARE'S FCFF FORECAST (2014-2018) AND DCF OUTPUT (€M)



Source: Own calculations.

Additionally, a sensitivity analysis was conducted in order to assess the impact of two main variables on the estimated value, being in this case the WACC and growth (g) rates. In order to do this analysis, these two rates were submitted to changes of 5%, as it is illustrated on the following table:

ILLUSTRATION 18 – SENSITIVITY ANALYSIS ON PERSONAL CARE'S ENTERPRISE VALUE (€M)

g WACC	5.40%	5.68%	5.98%	6.29%	6.61%	6.94%	7.29%
1.41%	41,979.11	39,539.73	37,295.32	35,225.35	33,401.97	31,706.86	30,128.18
1.48%	42,690.37	40,160.50	37,838.50	35,701.75	33,823.35	32,080.25	30,459.61
1.56%	43,468.67	40,838.02	38,429.90	36,219.31	34,280.23	32,484.37	30,817.74
1.64%	44,322.79	41,579.40	39,075.36	36,782.81	34,776.63	32,922.60	31,205.38
1.72%	45,215.01	42,351.47	39,745.67	37,366.51	35,289.68	33,374.59	31,604.44
1.81%	46,195.70	43,197.33	40,477.84	38,002.35	35,847.23	33,864.72	32,036.30
1.90%	47,277.36	44,126.90	41,279.85	38,696.78	36,454.59	34,397.37	32,504.61

Source: Own calculations.

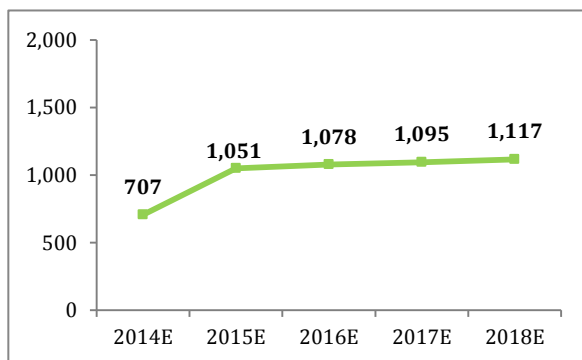
It is understandable that WACC is the variable with the most impact on a company's enterprise value (EV), since in this case having a decrease of 5% in the current WACC rate (6.29%) and maintaining constant the growth rate, leads to a new WACC of 5.98% and an EV of €39,075.36 million (about an increase of 6%). Whereas, if it increases 5% – reaching a 6.61% rate –, the EV will decrease around 5.5%.

Regarding the impact of the growth rate, a change of 5% in the current growth rate (1.64%) – assuming WACC constant – leads to a decrease or an increase of 1.5% in EV.

3.1.4.2 FOODS SEGMENT

In what concerns the Foods segment, its FCFF are expected to increase, likewise the previous business segment, as the graph below shows. In order to estimate a present value of those CFs, each value is discounted at WACC rate (6.29%) until 2014, leading to a value of €4,436 million. Furthermore, when the segment reaches a stable state a perpetual value must be taken into account. Given that, the terminal value for Foods segment is €24,386 million. At the end, summing up these two subtotals, the Foods segment is responsible for 26.5% of Unilever's total EV, contributing with €28,822 million.

ILLUSTRATION 19 – FOODS' FCFF FORECAST (2014-2018) AND DCF OUTPUT (€M)



Sum of Discounted CFs	4,436
Terminal Value	24,386
Enterprise Value	28,822

Source: Own calculations

Following the same reasoning from the previous section, a sensitivity analysis was performed submitting growth rate and WACC to changes of 5% which led to the same conclusion of observing the importance WACC plays on this estimation.

ILLUSTRATION 20 – SENSITIVITY ANALYSIS ON FOODS' ENTERPRISE VALUE (€M)

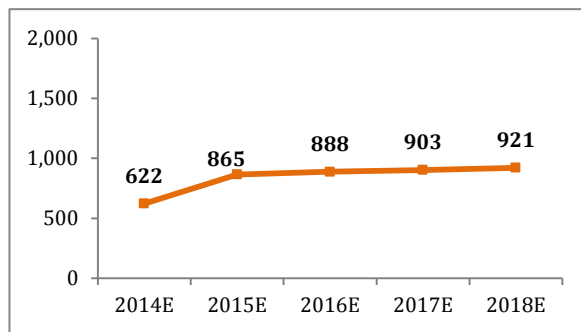
g WACC	5.40%	5.68%	5.98%	6.29%	6.61%	6.94%	7.29%
1.41%	32,892.10	30,981.61	29,223.81	27,602.64	26,174.60	24,847.02	23,610.62
1.48%	33,449.15	31,467.79	29,649.23	27,975.76	26,504.62	25,139.45	23,870.19
1.56%	34,058.71	31,998.41	30,112.41	28,381.10	26,862.44	25,455.95	24,150.67
1.64%	34,727.65	32,579.05	30,617.93	28,822.43	27,251.22	25,799.17	24,454.27
1.72%	35,426.42	33,183.74	31,142.90	29,279.58	27,653.03	26,153.16	24,766.81
1.81%	36,194.49	33,846.20	31,716.33	29,777.57	28,089.70	26,537.03	25,105.04
1.90%	37,041.64	34,574.24	32,344.46	30,321.44	28,565.38	26,954.20	25,471.82

Source: Own calculations.

3.1.4.3 REFRESHMENT SEGMENT

In Refreshments case, this segment is responsible for 21.9% of Unilever's total EV, with an estimated EV of €23,819 million. This value is estimated by discounting all the FCFFs illustrated in the following graph at WACC rate (€3,695 million) and adding the corresponding terminal value (€20,124 million).

ILLUSTRATION 21 – REFRESHMENT'S FCFF FORECAST (2014-2018) AND DCF OUTPUT (€M)



Sum of Discounted CFs	3,695
Terminal Value	20,124
Enterprise Value	23,819

Source: Own calculations

Furthermore, the sensitivity analysis shows the impact those two variables have on EV estimation. In this case, since the EV is somewhat smaller to the first segment (Personal Care), the impact of changing the WACC is starting to get less significant as well.

ILLUSTRATION 22 – SENSITIVITY ANALYSIS ON REFRESHMENT'S ENTERPRISE VALUE (€M)

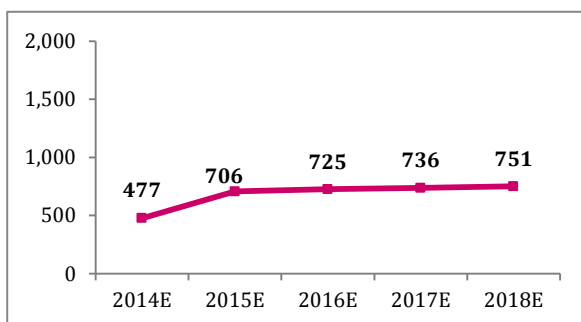
g WACC	5.40%	5.68%	5.98%	6.29%	6.61%	6.94%	7.29%
1.41%	27,177.21	25,600.69	24,150.17	22,812.40	21,634.00	20,538.49	19,518.24
1.48%	27,636.89	26,001.89	24,501.23	23,120.29	21,906.33	20,779.81	19,732.44
1.56%	28,139.90	26,439.76	24,883.44	23,454.78	22,201.61	21,040.99	19,963.89
1.64%	28,691.91	26,918.90	25,300.60	23,818.97	22,522.42	21,324.21	20,214.42
1.72%	29,268.54	27,417.89	25,733.81	24,196.21	22,854.00	21,616.33	20,472.33
1.81%	29,902.35	27,964.56	26,207.01	24,607.15	23,214.34	21,933.10	20,751.44
1.90%	30,601.42	28,565.33	26,725.34	25,055.95	23,606.87	22,277.34	21,054.10

Source: Own calculations.

3.1.4.4 HOME CARE SEGMENT

At last, the Home Care segment is the smallest contributor with only 17.8% of Unilever's total EV (€19,375 million). The following graph shows that its forecasted FCFFs are following the same trend as the remaining segments, reaching at 2018 a FCFF of €751 million. Moreover, in order to determine Home Care's EV, those CFs need to be discounted at WACC rate and add the respective terminal value as shown in the following table:

ILLUSTRATION 23 – HOME CARE'S FCFF FORECAST (2014-2018) AND DCF OUTPUT (€M)



Sum of Discounted CFs	2,983
Terminal Value	16,392
Enterprise Value	19,375

Source: Own calculations

In the sensitivity analysis, since this segment is the smallest contributor, the changes in WACC and growth rate do not seem to turn out in significant changes in Home Care's estimated EV, being around €1,000 million when WACC changes 5% and around €300 million when growth rate changes 5%. As shown in the following table, the worst case scenario when the segment sees a reduction of 18% in its EV is only when the WACC is 7.29% and the growth rate is 1.41%.

ILLUSTRATION 24 – SENSITIVITY ANALYSIS ON HOME CARE'S ENTERPRISE VALUE (€M)

g WACC	5.40%	5.68%	5.98%	6.29%	6.61%	6.94%	7.29%
1.41%	22,110.74	20,826.56	19,645.02	18,555.32	17,595.43	16,703.07	15,871.99
1.48%	22,485.17	21,153.36	19,930.98	18,806.12	17,817.26	16,899.63	16,046.47
1.56%	22,894.90	21,510.03	20,242.31	19,078.58	18,057.78	17,112.38	16,235.00
1.64%	23,344.54	21,900.32	20,582.11	19,375.23	18,319.10	17,343.08	16,439.07
1.72%	23,814.24	22,306.77	20,934.98	19,682.51	18,589.19	17,581.02	16,649.15
1.81%	24,330.52	22,752.06	21,320.43	20,017.24	18,882.71	17,839.05	16,876.50
1.90%	24,899.95	23,241.43	21,742.64	20,382.82	19,202.44	18,119.45	17,123.04

Source: Own calculations.

3.2 RELATIVE VALUATION

According to what was referred in the Literature Review, the aim of a relative valuation was merely to complement the DCF model. Given that, the following sub-sections explain the process of selecting a viable peer group and how to use them in order to reach a value for Unilever.

3.2.1 PEER GROUP SELECTION

In order to create a powerful group of comparables towards Unilever, the first step is to look into Bloomberg's peer companies of UNA NA. If no criterion is determined, the group is too broad and no strong relation to this company. Therefore, a list of top 50 companies with the most similar revenues to Unilever's were considered taking into account the industry (ICB – Consumer Goods) and only global ones. However, since the industry of consumer goods includes many sectors not related to Unilever's, another constraint was built based on the ICB subsector of each one, narrowing to 13 companies.

Afterward, in order to select a final peer group which would be "closest" to Unilever, a cluster analysis was thought of. In order to compare each company, different variables were selected, for instance sales growth, the market capitalization, WACC, ROIC and capital structure (in this case, market value of debt to market capitalization) from last year (trailing 12 months). First, in order to decide how many clusters were needed, a dendrogram using average linkage between groups was drawn (including Unilever), concluding that 3 clusters would be adequate to analyze great discrepancies in terms of "distance" between companies taking into consideration the above criteria. Then, to check the significance of the variables presented, an ANOVA's reading was enough

to conclude that sales growth (of one year) and the WACC rate were not significant for this analysis. Therefore, only market capitalization, ROIC and debt to equity (market values) are regarded. Finally, conducting properly this cluster analysis, 3 distinguished groups were formed, according to distance between each other. Thus, as referred at the beginning, what is relevant for the relative valuation is to gather the “closest” companies to Unilever. Given that, every company that belongs to the same cluster as Unilever will be chosen, being in this case L’Oréal, PepsiCo and Coca-Cola Co. Furthermore, since only 3 peers are not sufficient, companies belonging to cluster 2 will also be chosen – Nestlé and Procter & Gamble (see Appendix 10 for further details on this valuation).

In fact, the final list of 5 peers is in accordance to the competitors’ analysis (previously analyzed while introducing the company) in addition to the peers of comparison stated in Unilever’s Annual Reports.

3.2.2 MULTIPLES

After identifying a peer group of companies comparable to Unilever, important ratios are needed to be computed in order to determine its enterprise value. Thus, four multiples were chosen – Price to Earnings ratio (P/E), enterprise value over EBITDA (EV/EBITDA), enterprise value over EBIT (EV/EBIT) and price over sales (P/SALES) – and respective values taken from Bloomberg concerning 2012, 2013 and 2014 years (being the latter forecasted). The first ratio is computed by dividing the last price by the twelve months trailing earnings from continuous operations. The EV/EBITDA and EV/EBIT correspond to the ratio of the current enterprise value and the trailing twelve months EBITDA and EBIT, respectively. Finally, the price over sales ratio is estimated by taking the security’s last price over the turnover per share. The methodology behind multiples estimation is consistent between each peer company.

As referred in the Literature Review chapter and according to Liu et al. (2002), the peer average for each multiple is calculated according to a harmonic mean. The Market Capitalization estimation (in “Value” column in the following table 3) was incurred by multiplying the peer harmonic average and the respective driver. Also, multiples for 2014 were considered using future events since they achieve better results, according to Goedhart et al. (2005). Moreover, the amount of shares outstanding in 2014 is assumed to be likewise in 2013.

ILLUSTRATION 25 – MULTIPLES VALUATION (2012, 2013 AND 2014)

	2012			2013			2014E		
	Peer Harmonic Average	Value	Price per share (€)	Peer Harmonic Average	Value	Price per share (€)	Peer Harmonic Average	Value	Price per share (€)
P/E	18,63	81.393,77	28,74	20,68	100.140,85	35,26	20,56	90.553,48	31,88
EV/EBITDA	12,79	96.724,09	34,16	13,63	112.698,88	39,68	13,78	96.988,61	34,15
EV/EBIT	15,72	101.881,15	35,98	16,70	120.083,68	42,28	16,77	99.402,97	35,00
P/SALES	2,34	120.231,46	42,46	2,62	130.401,27	45,92	2,73	131.820,12	46,42
Shares Outstanding (millions)		2,840.0	In 2013 & 2014		2,831.8	In 2012			

Source: Bloomberg, Unilever’s Annual Reports and own calculations.

Even though a relative valuation is perceived as a complementary model to the DCF one, by analyzing the price per share estimated with each multiple in 2014, the prices are close to the one achieved in the previous valuation methodology – €36.39. Nevertheless, as stated in the Literature Review, Goedhart et al. (2005) believes the Enterprise-Value multiples are preferable since changes in a company's capital structure does not impact that much as it does on P/E multiple. Even though Fernández (2001) believes the P/E is more suitable for companies in the Food sub-sector (Retail & Consumer Goods industry), the multiple is more reliable when peers and the company being analyzed have similar expectations regarding growth and ROIC. And since mainly Unilever's ROIC in 2013 is somewhat different from its peers (see Appendix 10), the P/E ratio will not be taken into consideration. In addition, the previous reasoning also applies to the P/SALES ratio since it depends on similar perspectives of growth, ROIC and operating margins.

As a result, the best multiple to be considered in this case is the EV/EBITDA one, estimating a price of €34.15 per share with a forward multiple for 2014. When comparing to the DCF valuation, it is slightly lower however explained by not considering the growth and cash flow potential of the company. Accordingly, Unilever is considered to be undervalued leading to a buying opportunity (€34.15 versus €31.86 – price at 24th July of 2014).

3.3 DIVIDEND DISCOUNT MODEL

The Dividend Discount Model (DDM) was proposed since it gives a different perspective from a DCF valuation while focusing mainly on equity. This model values a company's equity by forecasting its share of expected future cash flows and discounting them at the opportunity cost (reflecting the risk based on what it is bearing). Furthermore, as referred in the Literature Review, Luehrman (1997) believes the model answers a more specific question - "What is the value of an equity claim on this bundle of assets and opportunities, assuming they are financed in this fashion?".

Assuming the distribution of net profit at the end of the year after 2013 will remain constant (8% for non-controlling interests and 92% corresponding to the Shareholders' equity), it was possible to forecast that disaggregation and, consequently, determine future values for Basic Earnings per share, given that the number of shares outstanding would not suffer changes throughout time.

Unilever shares on its Annual Reports the annual dividend paid per share by Unilever NV and PLC, and to calculate an overall amount paid a weighted average dividend paid price per share was calculated based on the percentage each company holds on the total amount of shares outstanding (55% and 45%, respectively). The assumption used while forecasting future values for the weighted average dividend paid was that the average payout ratio from the past 5 years would remain constant – 0.56. After that, it was only needed to calculate the dividends on ordinary capital, by multiplying the payout ratio by that forecasted weighted average. Since the total amount paid each year is not yet at today's value, they need to be discounted at cost of equity – 6.78% (taken

from WACC chapter). In what concerns the terminal value, the growth rate considered was the same used in the DCF valuation (1.64%) resulting in a market value of equity of €52,969 million and consequently pricing Unilever at €18.65 (as shown in the table below) which is extremely lower than the prices of both DCF and relative valuations (see Appendix 11 for further details on the model). Since the discrepancy is quite evident, the result from this model will no further be considered.

ILLUSTRATION 26 – DIVIDEND DISCOUNT MODEL OUTPUT

Sum of Disc. CFs	11,444
Terminal Value	41,525
Equity	52,969
Shares Outstanding	2,840,010,742
Price per share	18.65

Source: Unilever's Annual Reports and own calculations.

4 RESEARCH REPORT COMPARISON

As a final requirement for this Thesis, a comparison of the final valuation must be done to an analyst report regarding the same company. Indeed, the aim of this chapter is to identify and understand the discrepancies between these two reports. So accordingly, the most recent report was chosen corresponding to a J. P. Morgan (Europe Equity Research) report – dating 24th July of 2014.

First of all, the analyst chose to perform a DCF valuation, likewise in this Dissertation. Nevertheless, the time period chosen is slighter, from 2014 to 2016, when in comparison to mine it was extended until 2018. Given that, the time period of 2014-2016 will be only considered from now on in order to be able to compare both analyses.

ILLUSTRATION 27 – PARAMETERS COMPARISON BETWEEN ANALYSES

Parameters	Thesis	J. P. Morgan
Valuation Model	DCF	DCF
Time Period	2014-2018	2014-2016
WACC	6.29%	8.50%
Price Target	€36.39	€27.00
Price @ 24th July 2014	€31.86	

Source: Own calculations and J. P. Morgan report

Considering the table above, the discrepancy in price target (€36.39 versus €27.00), even though small, is evident. And since the price at the valuation date is €31.86, it results in different recommendations – mine being a buying one whereas the analyst would recommend to sell. Furthermore, and since it was proved while performing a sensitivity analysis to Unilever's price per share, the WACC has a great influence on determining the estimated price. Having that said, given that J. P. Morgan assumes a higher WACC than the one of this Thesis – 8.50% versus 6.29% - the price will consequently be lower.

Nevertheless, the comparison does not end here, since there are also discrepancies in relevant variables used to compute the price (see illustration 28). For instance, the turnover behaviour for 2014 until 2016 is slightly different (3.16% on average) but both analyses assume in 2014 we will witness a decrease on sales due to market conditions. Since J. P. Morgan makes its analysis regarding all information provided during the Q2/H1 2014 conference call feedback by Unilever's management, its assumption on turnover is based on the information that the global market has decelerated 3% in Q1 and being now below 2.5% in Q2. In addition, a reference to currency movements is made assessing an impact on turnover of -5%, which was also taken into account in this Thesis for 2014.

ILLUSTRATION 28 – VARIABLES COMPARISON BETWEEN ANALYSES

(€ million)	2014	2015	2016
Turnover - Dissertation	48,309	49,592	50,910
Turnover – J. P. Morgan	48,883	51,038	53,648
EBITDA – Dissertation	7,434	7,595	7,760
EBITDA – J. P. Morgan	8,019	8,459	8,987
EBIT – Dissertation	6,253	6,385	6,520
EBIT – J. P. Morgan	8,450	7,789	8,284
Profits before tax – Dissertation	6,469	6,625	6,783
Profits before tax – J. P. Morgan	8,124	7,510	8,047
Net Profit – Dissertation	4,787	4,903	5,020
Net Profit – J. P. Morgan	5,025	5,175	5,546
Depreciation and Amortization – Dissertation	1,181	1,210	1,241
Depreciation and Amortization – J. P. Morgan	1,130	1,180	1,240
Capex – Dissertation	1,981	2,033	2,087
Capex – J. P. Morgan	2,039	2,180	2,345

Source: Own calculations and J. P. Morgan report

Furthermore, J. P. Morgan assumes larger EBITDA and EBIT values by 11.69% and 28% on average, respectively. The reasoning behind these differences should be the costs structure since restructuring costs were being previously incurred. Consequently, profits before tax estimated by J. P. Morgan are still 19% (on average) higher than the values of this Thesis. However, no further details of these three last indicators were assessed by the analyst.

Regarding net profit, there is also inflation on J. P. Morgan values, being 7% (on average) larger than the ones of this Thesis. It is relevant to address that even though Unilever has referred in the Annual Report the effective tax rate would remain constant at 26%, J. P. Morgan has assumed a different tax rate specifically for 2014 – 33.8%. However, no further explanation was detailed in the report. Nevertheless, all these difference derive mainly from the discrepancies in turnover values.

In what concerns Depreciation and Amortization, both analyses assume similar expectations, being J. P. Morgan's values a few smaller (-2.29% on average). And the values of Capital Expenditures follows the same trend (a difference of 7.5% on average), but being more aggressively increased throughout the years by J. P. Morgan. Nevertheless, there is no indication in its report regarding the assumptions behind these estimations.

5 CONCLUSION

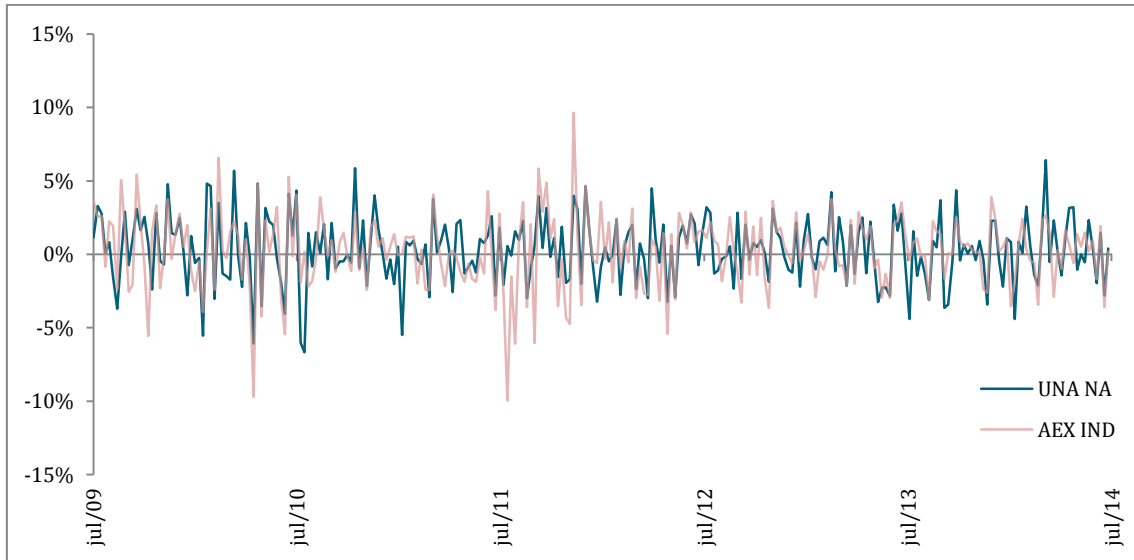
In conclusion, this study enabled me to understand the vast number of models and methodologies used while valuating a company. And two main sorts of situation may occur. Firstly, the choice of different models can lead to different values at the end, since understandings of a valuation vary across authors. Nevertheless, using the same model does not mean that at the end the result is also going to be the same. This is accurate since people have different assumptions and interpretations of data concerning the same company and it was confirmed during the comparison of the DCF analysis performed in this Dissertation to the DCF performed by J. P. Morgan (€36.39 versus €27.00). All in all, there is no perfect valuation tool and widely used, since the type of company and its related assumptions dictates the type of methodology that best fits the situation.

Furthermore, in this Thesis Unilever was valuated at €36.39 using DCF-WACC methodology. Being a global player in a mature market leads to no big surprises, however it is a quite profitable company that will still make its presence noticeable to its competitors for the next decades.

6 APPENDIX

APPENDIX 1

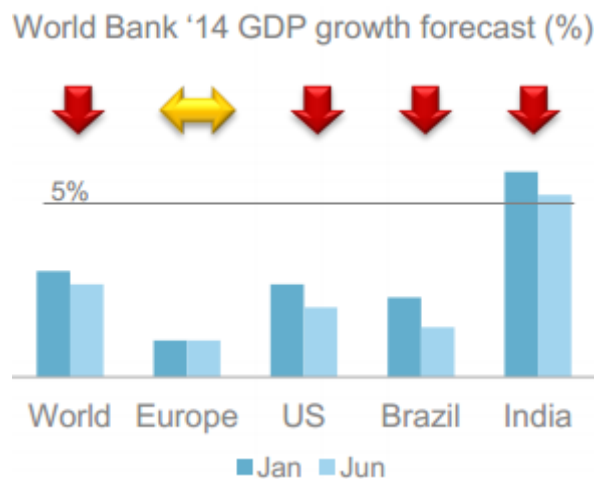
HISTORICAL RETURNS (&) OF UNILEVER NV – UNA NA – AND AMSTERDAM EXCHANGE INDEX – AEX IND (JULY 2009 – JULY 2014)



Source: Weekly values taken from Bloomberg of tickers UNA NA and AEX IND (between July of 2009 and 2014)

APPENDIX 2

GDP GROWTH FORECAST (%) FOR 2014



Source: Unilever's H1 2014 Results Presentation; World Bank data.



APPENDIX 3

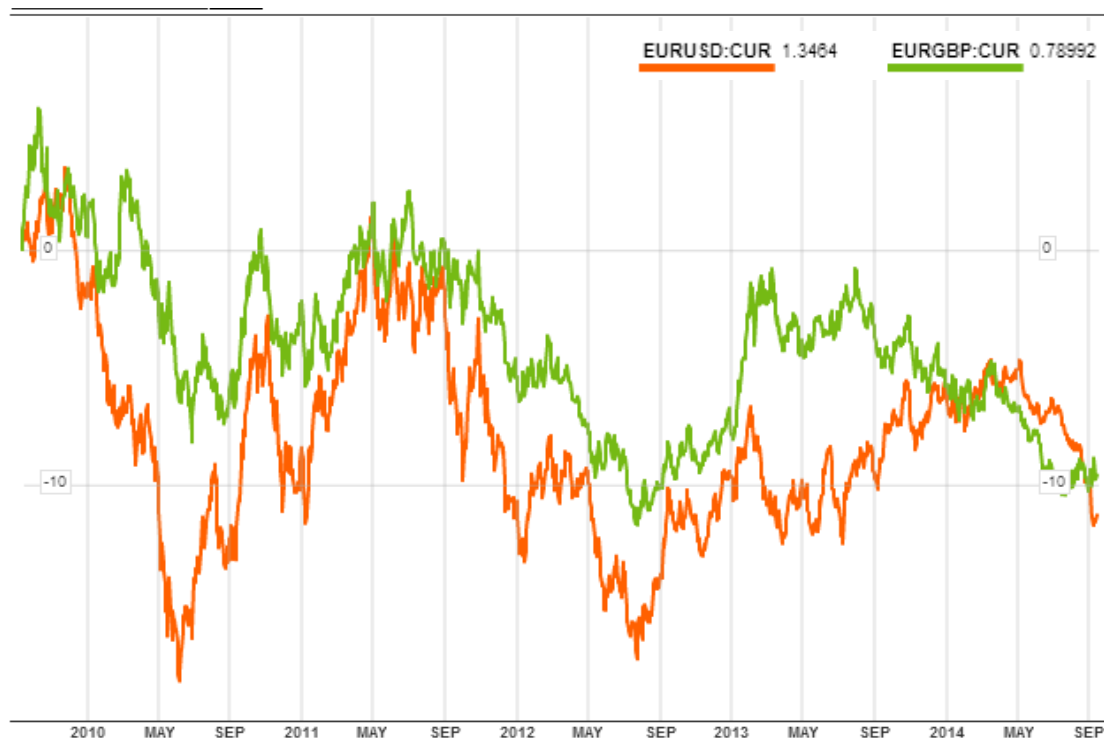
HISTORICAL AND FUTURE INFLATION RATES (%)

	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Inflation (consumer prices - %)	2.91%	3.49%	5.02%	3.71%	2.66%	2.66%	2.66%	2.66%	2.66%	2.66%

Source: World Bank (world indicator)

APPENDIX 4

EUR/USD AND EUR/GBP BEHAVIOR FOR THE LAST 5 YEARS



Source: Bloomberg.

APPENDIX 5

UNILEVER'S LIABILITIES: HISTORICAL AND ESTIMATED VALUES (2009-2018) - €M

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Current liabilities										
Financial liabilities	2,279	2,276	5,840	2,656	4,010	4,010	4,010	4,010	4,010	4,010
Trade payables and other current liabilities	8,413	10,239	10,971	11,668	11,735	11,070	11,364	11,666	11,976	12,294
Current tax liabilities	487	642	725	1,129	1,254	867	890	914	938	963
Provisions	420	421	393	361	379	378	373	376	376	375
Liabilities associated with assets held for sale	-	30	-	1	4	4	4	4	4	4
Total current liabilities	11,599	13,608	17,929	15,815	17,382	16,329	16,641	16,970	17,304	17,646
Non-current liabilities										
Financial liabilities	7,692	7,258	7,878	7,565	7,491	7,491	7,491	7,491	7,491	7,491
Non-current tax liabilities	107	184	258	100	145	145	145	145	145	145
Pensions and post-retirement healthcare liabilities										
Funded schemes in deficit	1,519	1,081	2,295	2,060	1,405	1,405	1,405	1,405	1,405	1,405
Unfunded schemes	1,822	1,899	1,911	2,040	1,563	1,563	1,563	1,563	1,563	1,563
Provisions	729	886	908	846	892	882	873	882	879	878
Deferred tax liabilities	764	880	1,125	1,414	1,524	1,524	1,524	1,524	1,524	1,524
Other non-current liabilities	248	298	287	400	296	296	296	296	296	296
Total non-current liabilities	12,881	12,486	14,662	14,425	13,316	13,306	13,297	13,306	13,303	13,302
Total Liabilities	24,480	26,094	32,591	30,240	30,698	29,635	29,938	30,277	30,607	30,949

Source: Unilever's Annual Reports and own calculations.

APPENDIX 6

UNILEVER'S INCOME STATEMENT (€M) – 2009-2018

(€ million)	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Total Turnover	39,823	44,262	46,467	51,324	49,797	48,309	49,592	50,910	52,263	53,652
Personal Care	11,846	13,767	15,471	18,097	18,056	17,516	17,982	18,460	18,950	19,454
Foods	13,256	14,164	13,986	14,444	13,426	13,025	13,371	13,726	14,091	14,465
Refreshment	7,753	8,605	8,804	9,726	9,369	9,089	9,331	9,578	9,833	10,094
Home Care	6,968	7,726	8,206	9,057	8,946	8,679	8,909	9,146	9,389	9,639
Growth		11.1%	5.0%	10.5%	-3.0%	-3.0%	2.7%	2.7%	2.7%	2.7%
(Cost of Sales)	(23,182)	(25,890)	(27,930)	(30,703)	(29,245)	(28,641)	(29,402)	(30,183)	(30,986)	(31,809)
Growth		11.7%	7.9%	9.9%	-4.7%	-2.1%	2.7%	2.7%	2.7%	2.7%
Personal Care	(6,896)	(8,053)	(9,299)	(10,826)	(10,604)	(10,385)	(10,661)	(10,944)	(11,235)	(11,534)
Foods	(7,717)	(8,285)	(8,407)	(8,641)	(7,885)	(7,722)	(7,927)	(8,138)	(8,354)	(8,576)
Refreshment	(4,513)	(5,033)	(5,292)	(5,818)	(5,502)	(5,389)	(5,532)	(5,679)	(5,830)	(5,985)
Home Care	(4,056)	(4,519)	(4,932)	(5,418)	(5,254)	(5,145)	(5,282)	(5,422)	(5,567)	(5,714)
Gross Profit	16,641	18,372	18,537	20,621	20,552	19,668	20,190	20,727	21,278	21,843
Selling and Administrative Costs	(11,621)	(12,033)	(12,117)	(13,644)	(13,035)	(13,415)	(13,805)	(14,207)	(14,621)	(15,047)
Operating Profit	5,020	6,339	6,420	6,977	7,517	6,253	6,385	6,520	6,657	6,796
Depreciation and Amortization	1,019	993	1,029	1,199	1,151	1,181	1,210	1,241	1,272	1,304
EBITDA	6,039	7,332	7,449	8,176	8,668	7,434	7,595	7,760	7,929	8,100
(Depreciation and Amortization)	(1,019)	(993)	(1,029)	(1,199)	(1,151)	(1,181)	(1,210)	(1,241)	(1,272)	(1,304)
EBIT	5,020	6,339	6,420	6,977	7,517	6,253	6,385	6,520	6,657	6,796
(Net Finance Costs)	(593)	(394)	(543)	(535)	(530)	63	83	103	123	143
Finance Income	75	77	92	136	103	721	740	760	780	801
Finance costs	(504)	(491)	(540)	(526)	(500)	(531)	(537)	(543)	(549)	(555)
Pensions and similar obligations	(164)	20	(95)	(145)	(133)	(126)	(120)	(114)	(108)	(102)
Other income/(loss) from non-current investments	374	76	76	(14)	14	36	37	38	39	40
Share of results of joint ventures & associates	115	111	113	105	113	117	120	123	126	129
EBT	4,916	6,132	6,066	6,533	7,114	6,469	6,625	6,783	6,945	7,109
(Taxation) @ 26%	(1,257)	(1,534)	(1,575)	(1,697)	(1,850)	(1,682)	(1,723)	(1,764)	(1,806)	(1,848)
Net Profit	3,659	4,598	4,491	4,836	5,264	4,787	4,903	5,020	5,139	5,260

UNILEVER'S INCOME STATEMENT (€M) – PERSONAL CARE SEGMENT – 2009-2018

PERSONAL CARE

(€ million)	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Turnover	11,846	13,767	15,471	18,097	18,056	17,516	17,982	18,460	18,950	19,454
Growth		16.2%	12.4%	17.0%	-0.2%	-3.0%	2.7%	2.7%	2.7%	2.7%
(Cost of Sales)	(6,896)	(8,053)	(9,299)	(10,826)	(10,604)	(10,385)	(10,661)	(10,944)	(11,235)	(11,534)
Growth		16.8%	15.5%	16.4%	-2.1%	-2.1%	2.7%	2.7%	2.7%	2.7%
Gross Profit	4,950	5,714	6,172	7,271	7,452	7,131	7,321	7,515	7,715	7,920
% Turnover	41.8%	41.5%	39.9%	40.2%	41.3%	40.7%	40.7%	40.7%	40.7%	40.7%
Selling and Administrative Costs	(3,457)	(3,743)	(4,034)	(4,811)	(4,726)	(4,864)	(5,006)	(5,151)	(5,301)	(5,456)
Operating Profit	1,493	1,972	2,138	2,460	2,726	2,267	2,315	2,364	2,414	2,464
% Turnover	12.6%	14.3%	13.8%	13.6%	15.1%	12.9%	12.9%	12.8%	12.7%	12.7%
Depreciation and Amortization	269	262	272	336	327	335	344	353	361	371
EBITDA	1,763	2,234	2,410	2,796	3,053	2,603	2,659	2,716	2,775	2,835
% Turnover	14.9%	16.2%	15.6%	15.5%	16.9%	14.9%	14.8%	14.7%	14.6%	14.6%
(Depreciation and Amortization)	(269)	(262)	(272)	(336)	(327)	(335)	(344)	(353)	(361)	(371)
EBIT	1,493	1,972	2,138	2,460	2,726	2,267	2,315	2,364	2,414	2,464
(Net Finance Costs)	(176)	(123)	(181)	(189)	(192)	23	30	37	45	52
Finance Income	22	24	31	48	37	261	268	275	283	290
Finance costs	(150)	(153)	(180)	(185)	(181)	(193)	(195)	(197)	(199)	(201)
Pensions and similar obligations	(49)	6	(32)	(51)	(48)	(46)	(43)	(41)	(39)	(37)
Other income/(loss) from non-current investments	9	11	12	14	16	13	13	14	14	14
Share of results of joint ventures & associates	4	7	5	1	5	5	5	5	6	6
EBT	1,330	1,868	1,974	2,287	2,554	2,309	2,364	2,421	2,478	2,536
(Taxation) @ 26%	(340)	(467)	(513)	(594)	(664)	(600)	(615)	(629)	(644)	(659)
Net Profit	990	1,400	1,462	1,693	1,890	1,708	1,749	1,791	1,834	1,877

UNILEVER'S INCOME STATEMENT (€M) – FOODS SEGMENT – 2009-2018

FOODS

(€ million)	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Turnover	13,256	14,164	13,986	14,444	13,426	13,025	13,371	13,726	14,091	14,465
Growth		6.8%	-1.3%	3.3%	-7.0%	-3.0%	2.7%	2.7%	2.7%	2.7%
(Cost of Sales)	(7,717)	(8,285)	(8,407)	(8,641)	(7,885)	(7,722)	(7,927)	(8,138)	(8,354)	(8,576)
Growth		7.4%	1.5%	2.8%	-8.7%	-2.1%	2.7%	2.7%	2.7%	2.7%
Gross Profit	5,539	5,879	5,579	5,803	5,541	5,303	5,444	5,588	5,737	5,889
% Turnover	41.8%	41.5%	39.9%	40.2%	41.3%	40.7%	40.7%	40.7%	40.7%	40.7%
Selling and Administrative Costs	(3,868)	(3,851)	(3,647)	(3,840)	(3,514)	(3,617)	(3,722)	(3,830)	(3,942)	(4,057)
Operating Profit	1,671	2,029	1,932	1,964	2,027	1,686	1,721	1,758	1,795	1,832
% Turnover	12.6%	14.3%	13.8%	13.6%	15.1%	12.9%	12.9%	12.8%	12.7%	12.7%
Depreciation and Amortization	283	276	286	311	293	301	308	316	324	332
EBITDA	1,954	2,304	2,218	2,275	2,320	1,986	2,030	2,074	2,119	2,164
% Turnover	14.7%	16.3%	15.9%	15.7%	17.3%	15.3%	15.2%	15.1%	15.0%	15.0%
(Depreciation and Amortization)	(283)	(276)	(286)	(311)	(293)	(301)	(308)	(316)	(324)	(332)
EBIT	1,671	2,029	1,932	1,964	2,027	1,686	1,721	1,758	1,795	1,832
(Net Finance Costs)	(197)	(126)	(163)	(151)	(143)	17	22	28	33	39
Finance Income	25	25	28	38	28	194	200	205	210	216
Finance costs	(168)	(157)	(163)	(148)	(135)	(143)	(145)	(146)	(148)	(150)
Pensions and similar obligations	(55)	6	(29)	(41)	(36)	(34)	(32)	(31)	(29)	(28)
Other income/(loss) from non-current investments	10	12	11	11	12	10	10	10	10	11
Share of results of joint ventures & associates	14	18	7	5	9	9	10	10	10	10
EBT	1,497	1,932	1,787	1,829	1,905	1,722	1,764	1,806	1,848	1,892
(Taxation) @ 26%	(383)	(483)	(464)	(475)	(495)	(448)	(459)	(469)	(481)	(492)
Net Profit	1,114	1,449	1,323	1,354	1,409	1,274	1,305	1,336	1,368	1,400

UNILEVER'S INCOME STATEMENT (€M) – REFRESHMENT SEGMENT – 2009-2018

REFRESHMENT

(€ million)	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Turnover	7,753	8,605	8,804	9,726	9,369	9,089	9,331	9,578	9,833	10,094
Growth		11.0%	2.3%	10.5%	-3.7%	-3.0%	2.7%	2.7%	2.7%	2.7%
(Cost of Sales)	(4,513)	(5,033)	(5,292)	(5,818)	(5,502)	(5,389)	(5,532)	(5,679)	(5,830)	(5,985)
Growth		11.5%	5.1%	9.9%	-5.4%	-2.1%	2.7%	2.7%	2.7%	2.7%
Gross Profit	3,240	3,572	3,512	3,908	3,867	3,700	3,799	3,900	4,003	4,110
% Turnover	41.8%	41.5%	39.9%	40.2%	41.3%	40.7%	40.7%	40.7%	40.7%	40.7%
Selling and Administrative Costs	(2,262)	(2,339)	(2,296)	(2,586)	(2,452)	(2,524)	(2,597)	(2,673)	(2,751)	(2,831)
Operating Profit	977	1,232	1,216	1,322	1,414	1,176	1,201	1,227	1,252	1,279
% Turnover	12.6%	14.3%	13.8%	13.6%	15.1%	12.9%	12.9%	12.8%	12.7%	12.7%
Depreciation and Amortization	278	271	281	340	330	338	347	356	365	374
EBITDA	1,256	1,504	1,497	1,662	1,744	1,515	1,548	1,582	1,617	1,653
% Turnover	16.2%	17.5%	17.0%	17.1%	18.6%	16.7%	16.6%	16.5%	16.4%	16.4%
(Depreciation and Amortization)	(278)	(271)	(281)	(340)	(330)	(338)	(347)	(356)	(365)	(374)
EBIT	977	1,232	1,216	1,322	1,414	1,176	1,201	1,227	1,252	1,279
(Net Finance Costs)	(115)	(77)	(103)	(101)	(100)	12	16	19	23	27
Finance Income	15	15	17	26	19	136	139	143	147	151
Finance costs	(98)	(95)	(102)	(100)	(94)	(100)	(101)	(102)	(103)	(104)
Pensions and similar obligations	(32)	4	(18)	(27)	(25)	(24)	(23)	(21)	(20)	(19)
Other income/(loss) from non-current investments	6	7	7	8	8	7	7	7	7	7
Share of results of joint ventures & associates	87	92	98	99	96	99	102	104	107	110
EBT	955	1,255	1,219	1,327	1,419	1,294	1,326	1,358	1,390	1,423
(Taxation) @ 26%	(244)	(314)	(316)	(345)	(369)	(337)	(345)	(353)	(361)	(370)
Net Profit	710	941	902	983	1,050	958	981	1,005	1,029	1,053

UNILEVER'S INCOME STATEMENT (€M) – HOME CARE SEGMENT – 2009-2018

HOME CARE

(€ million)	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Turnover	6,968	7,726	8,206	9,057	8,946	8,679	8,909	9,146	9,389	9,639
Growth		10.9%	6.2%	10.4%	-1.2%	-3.0%	2.7%	2.7%	2.7%	2.7%
(Cost of Sales)	(4,056)	(4,519)	(4,932)	(5,418)	(5,254)	(5,145)	(5,282)	(5,422)	(5,567)	(5,714)
Growth		11.4%	9.1%	9.8%	-3.0%	-2.1%	2.7%	2.7%	2.7%	2.7%
Gross Profit	2,912	3,207	3,274	3,639	3,692	3,533	3,627	3,724	3,823	3,924
% Turnover	41.8%	41.5%	39.9%	40.2%	41.3%	40.7%	40.7%	40.7%	40.7%	40.7%
Selling and Administrative Costs	(2,033)	(2,100)	(2,140)	(2,408)	(2,342)	(2,410)	(2,480)	(2,552)	(2,627)	(2,703)
Operating Profit	878	1,106	1,134	1,231	1,350	1,123	1,147	1,171	1,196	1,221
% Turnover	12.6%	14.3%	13.8%	13.6%	15.1%	12.9%	12.9%	12.8%	12.7%	12.7%
Depreciation and Amortization	188	183	190	212	201	206	211	217	222	228
EBITDA	1,067	1,290	1,324	1,443	1,551	1,330	1,358	1,388	1,418	1,449
% Turnover	15.3%	16.7%	16.1%	15.9%	17.3%	15.3%	15.2%	15.2%	15.1%	15.0%
(Depreciation and Amortization)	(188)	(183)	(190)	(212)	(201)	(206)	(211)	(217)	(222)	(228)
EBIT	878	1,106	1,134	1,231	1,350	1,123	1,147	1,171	1,196	1,221
(Net Finance Costs)	(104)	(69)	(96)	(94)	(95)	11	15	19	22	26
Finance Income	13	13	16	24	19	130	133	136	140	144
Finance costs	(88)	(86)	(95)	(93)	(90)	(95)	(96)	(98)	(99)	(100)
Pensions and similar obligations	(29)	3	(17)	(26)	(24)	(23)	(22)	(20)	(19)	(18)
Other income/(loss) from non-current investments	5	6	7	7	8	7	7	7	7	7
Share of results of joint ventures & associates	10	(6)	3	0	3	3	3	3	3	3
EBT	790	1,038	1,047	1,144	1,266	1,144	1,172	1,200	1,228	1,257
(Taxation) @ 26%	(202)	(260)	(272)	(297)	(329)	(298)	(305)	(312)	(319)	(327)
Net Profit	588	778	775	847	937	847	867	888	909	930

Source: Unilever's Annual Reports and own calculations.

APPENDIX 7

NET WORKING CAPITAL ESTIMATION (€M) – 2009-2018

(€ million)	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Inventories	3,578	4,307	4,601	4,436	3,937	4,379	4,496	4,615	4,738	4,864
DSI 55.81	56.34	60.72	60.13	52.74	49.14	55.81	55.81	55.81	55.81	55.81
Trade and other current receivables	3,429	4,142	4,513	4,436	4,831	4,447	4,565	4,686	4,811	4,939
DSO 33.60	31.43	34.16	35.45	31.55	35.41	33.60	33.60	33.60	33.60	33.60
Current tax assets	173	298	219	217	217	236	242	248	255	262
DSO 1.78	1.59	2.46	1.72	1.54	1.59	1.78	1.78	1.78	1.78	1.78
(Trade Payables and Other Current Liabilities)	(8,413)	(10,239)	(10,971)	(11,668)	(11,735)	(11,070)	(11,364)	(11,666)	(11,976)	(12,294)
DPO 141.07	132.46	144.35	143.37	138.71	146.46	141.07	141.07	141.07	141.07	141.07
(Current tax liabilities)	(487)	(642)	(725)	(1,129)	(1,254)	(867)	(890)	(914)	(938)	(963)
DPO 11.05	7.67	9.05	9.47	13.42	15.65	11.05	11.05	11.05	11.05	11.05
Working Capital	(1,720)	(2,134)	(2,363)	(3,708)	(4,004)	(2,875)	(2,952)	(3,030)	(3,111)	(3,193)
Δ Working Capital		(414)	(229)	(1,345)	(296)	1,129	(76)	(78)	(81)	(83)

Source: Unilever's Annual Reports and own calculations.

APPENDIX 8

UNILEVER'S FREE CASH FLOW TO THE FIRM (€M) – 2009-2018

EBIT	6,339	6,420	6,977	7,517	6,253	6,385	6,520	6,657	6,796
(Taxes on EBIT)	(1,648)	(1,669)	(1,814)	(1,954)	(1,626)	(1,660)	(1,695)	(1,731)	(1,767)
Depreciation and Amortization	993	1,029	1,199	1,151	1,181	1,210	1,241	1,272	1,304
Δ Provisions	158	(6)	(94)	64	(11)	(14)	13	(4)	(2)
Net Operating Profit after Tax	5,842	5,774	6,268	6,778	5,797	5,921	6,078	6,194	6,332
(Δ Working Capital)	414	229	1,345	296	(1,129)	76	78	81	83
(Capex)	(1,815)	(1,905)	(2,104)	(2,042)	(1,981)	(2,033)	(2,087)	(2,143)	(2,200)
FCFF	4,441	4,098	5,509	5,032	2,687	3,965	4,069	4,132	4,215

PERSONAL CARE'S FREE CASH FLOW TO THE FIRM (€M) – 2009-2018

EBIT	1,972	2,138	2,460	2,726	2,267	2,315	2,364	2,414	2,464
(Taxes on EBIT)	(513)	(556)	(640)	(709)	(589)	(602)	(615)	(628)	(641)
Depreciation and Amortization	262	272	336	327	335	344	353	361	371
Δ Provisions	49	(2)	(33)	23	(4)	(5)	5	(1)	(1)
Net Operating Profit after Tax	1,771	1,852	2,123	2,367	2,009	2,052	2,107	2,146	2,193
(Δ Working Capital)	152	123	521	144	(409)	28	28	29	30
(Capex)	(564)	(634)	(742)	(740)	(718)	(737)	(757)	(777)	(798)
FCFF	1,358	1,340	1,902	1,771	882	1,343	1,378	1,398	1,426

FOODS' FREE CASH FLOW TO THE FIRM (€M) – 2009-2018

EBIT	2,029	1,932	1,964	2,027	1,686	1,721	1,758	1,795	1,832
(Taxes on EBIT)	(527)	(502)	(511)	(527)	(438)	(448)	(457)	(467)	(476)
Depreciation and Amortization	276	286	311	293	301	308	316	324	332
Δ Provisions	51	(2)	(26)	17	(3)	(4)	3	(1)	(0)
Net Operating Profit after Tax	1,828	1,714	1,738	1,810	1,545	1,578	1,620	1,651	1,687
(Δ Working Capital)	110	28	332	36	(304)	21	21	22	22
(Capex)	(581)	(573)	(592)	(550)	(534)	(548)	(563)	(578)	(593)
FCFF	1,357	1,169	1,478	1,296	707	1,051	1,078	1,095	1,117

REFRESHMENT'S FREE CASH FLOW TO THE FIRM (€M) – 2009-2018

EBIT	1,232	1,216	1,322	1,414	1,176	1,201	1,227	1,252	1,279
(Taxes on EBIT)	(320)	(316)	(344)	(368)	(306)	(312)	(319)	(326)	(332)
Depreciation and Amortization	271	281	340	330	338	347	356	365	374
Δ Provisions	31	(1)	(18)	12	(2)	(3)	2	(1)	(0)
Net Operating Profit after Tax	1,214	1,180	1,301	1,389	1,207	1,233	1,266	1,291	1,320
(Δ Working Capital)	80	33	255	51	(212)	14	15	15	16
(Capex)	(353)	(361)	(399)	(384)	(373)	(383)	(393)	(403)	(414)
FCFF	941	852	1,157	1,055	622	865	888	903	921

HOME CARE'S FREE CASH FLOW TO THE FIRM (€M) – 2009-2018

EBIT	1,106	1,134	1,231	1,350	1,123	1,147	1,171	1,196	1,221
(Taxes on EBIT)	(288)	(295)	(320)	(351)	(292)	(298)	(305)	(311)	(317)
Depreciation and Amortization	183	190	212	201	206	211	217	222	228
Δ Provisions	28	(1)	(17)	11	(2)	(2)	2	(1)	(0)
Net Operating Profit after Tax	1,030	1,028	1,107	1,212	1,035	1,058	1,086	1,106	1,131
(Δ Working Capital)	72	45	237	65	(203)	14	14	14	15
(Capex)	(317)	(336)	(371)	(367)	(356)	(365)	(375)	(385)	(395)
FCFF	784	736	972	910	477	706	725	736	751

Source: Unilever's Annual Reports and own calculations.

APPENDIX 9

COMPARISON OF ESTIMATED BETA AND BLOOMBERG'S BETA

	Dissertation	Bloomberg
Beta	0.539	0.523
Adjusted beta	0.693	0.682

Source: Own calculations and Bloomberg data.

APPENDIX 10

PEER GROUP SELECTION FROM BLOOMBERG

Name	Mkt Cap (EUR)	Growth Sales (in 1 year)	WACC	ROIC:Y	D/E
UNILEVER NV-CVA	98,226.25	-2.98	7.22	21.11	0.14
NESTLE SA-REG	190,957.68	2.72	6.68	12.83	0.10
ARCHER-DANIELS-MIDLAND CO	25,229.09	-0.83	8.79	5.28	0.24
BUNGE LTD	9,660.53	0.58	4.95	0.68	0.75
JBS SA	9,171.02	22.73	12.20	5.36	1.30
WILMAR INTERNATIONAL LTD	12,434.00	-3.03	3.87	2.79	1.51
TYSON FOODS INC-CL A	10,397.65	3.99	8.31	10.63	0.24
MONDELEZ INTERNATIONAL INC-A	46,348.25	0.81	7.94	7.69	0.28
DANONE	35,086.66	2.06	4.83	9.35	0.36
MITSUBISHI SHOKUJIN CO LTD	1,054.76	2.99	8.33	7.32	0.08
PROCTER & GAMBLE CO/THE	173,968.55	0.58	6.59	11.17	0.17
L'OREAL	70,103.24	2.29	7.38	13.00	0.01
PEPSICO INC	106,709.52	1.41	6.53	13.38	0.23
COCA-COLA CO/THE	142,450.84	-2.42	7.26	11.08	0.20

Source: Bloomberg data (Unilever in blue, and selected peers in green after performing the SPSS analysis)

CLUSTER ANALYSIS – SPSS OUTPUT

Cluster Membership

Case Number	Name	Cluster	Distance
1	UNILEVER-NV-CVA	1	6,146.213
2	NESTLÉ SA-REG	2	8,494.565
3	ARCHER-DANIELS-MIDLAND CO	3	6,557.595
4	BUNGE LTD	3	9,010.965
5	JBS SA	3	9,500.475
6	WILMAR INTERNATIONAL LTD	3	6,247.495
7	TYSON FOODS INC-CL A	3	8,273.845
8	MONDELEZ INTERNATIONAL INC-A	3	27,676.755
9	DANONE	3	16,415.165
10	MITSUBISHI SHOKUJIN CO LTD	3	17,616.735
11	PROCTER & GAMBLE CO	2	8,494.565
12	L'ORÉAL	1	34,269.223
13	PEPSICO INC	1	2,337.058
14	COCA-COLA CO	1	38,078.378

Source: SPSS Output using Bloomberg data

PEER MULTIPLES FOR 2012, 2013 AND 2014

Values - 2012

		P/E	EV/EBITDA	EV/EBIT	P/SALES
	PEER HARMONIC AVERAGE	18.63	12.79	15.72	2.34
NESN VX Equity	NESTLE SA-REG	18.57	12.74	15.63	2.11
PG US Equity	PROCTER & GAMBLE CO/THE	18.20	13.54	16.29	2.56
OR FP Equity	L'OREAL	21.90	13.49	16.55	2.79
PEP US Equity	PEPSICO INC	17.14	10.75	13.93	1.62
KO US Equity	COCA-COLA CO/THE	18.01	13.98	16.55	3.40

Values - 2013

		P/E	EV/EBITDA	EV/EBIT	P/SALES
	PEER HARMONIC AVERAGE	20.68	13.63	16.70	2.62
NESN VX Equity	NESTLE SA-REG	20.80	12.50	15.17	2.26
PG US Equity	PROCTER & GAMBLE CO/THE	18.62	13.00	15.68	2.57
OR FP Equity	L'OREAL	25.80	15.58	19.20	3.32
PEP US Equity	PEPSICO INC	19.66	11.85	15.10	1.92
KO US Equity	COCA-COLA CO/THE	19.86	16.30	19.45	3.91

Values - 2014E

		P/E	EV/EBITDA	EV/EBIT	P/SALES
	PEER HARMONIC AVERAGE	20.56	13.78	16.77	2.73
NESN VX Equity	NESTLE SA-REG	20.76	14.35	17.62	2.50
PG US Equity	PROCTER & GAMBLE CO/THE	18.75	12.64	15.04	2.67
OR FP Equity	L'OREAL	23.49	14.58	17.71	3.12
PEP US Equity	PEPSICO INC	20.03	12.34	15.54	2.06
KO US Equity	COCA-COLA CO/THE	20.33	15.52	18.47	3.97

Source: Bloomberg data

UNILEVER'S PEERS ACCORDING TO ANNUAL REPORT (2013)

COMPANY NAME	
Avon	Kao
Beiersdorf	Kellogg's
Campbell Soup	Kimberly-Clark
Coca-Cola	L'Oréal
Colgate-Palmolive	Nestlé
Danone	PepsiCo
General Mills	Procter & Gamble
Estée Lauder	Reckitt Benckiser
Henkel	Shiseido

Source: Unilever's Annual Report (2013)

APPENDIX 11

DIVIDEND DISCOUNT MODEL (€M) – 2009-2018

	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
Net Profit	3,659	4,598	4,491	4,836	5,263	4,787	4,903	5,020	5,139	5,260
Non-controlling interests	289	354	371	468	421	383	392	402	411	421
	7.90%	7.70%	8.26%	9.68%	8.00%					
Shareholders' equity	3,370	4,244	4,120	4,368	4,842	4,404	4,511	4,618	4,728	4,840
	92.10%	92.30%	91.74%	90.32%	92.00%					
Basic earnings per share (€)	1.21	1.51	1.46	1.54	1.71	1.55	1.59	1.63	1.66	1.70
Diluted earnings per share (€)	1.17	1.46	1.42	1.50	1.66					
Weighted Average Dividend Paid Price per Share	0.75	0.79	0.83	0.88	0.92	0.87	0.90	0.92	0.94	0.96
NV	0.78	0.82	0.88	0.95	1.05					
PLC (converted into EUR)	0.72	0.74	0.77	0.79	0.77					
Conversion 1€ = £ (year end)	0.89	0.86	0.83	0.81	0.83					
Payout Ratio	<i>Avg. 0.56</i>	0.62	0.52	0.57	0.54					
Dividends on Ordinary Capital						2,485	2,545	2,605	2,667	2,730
Discounted CFs						2,485	2,383	2,285	2,191	2,100

Source: Unilever's Annual Reports and own calculations

7 ACRONYMS

APV	Adjusted Present Value
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
CF	Cash Flow
DCF	Discounted Cash Flow
DDM	Dividend Discount Model
DPO	Days Payables Outstanding
DSI	Days Sales to Inventory
DSO	Days Sales Outstanding
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ECF	Equity Cash Flow
EV	Enterprise Value
EVA	Economic Value Added
FCFE	Free Cash Flow to the Equity
FCFF	Free Cash Flow to the Firm
g	Growth rate
GDP	Gross Domestic Product
IA	Intangible Assets
Kd	Cost of Debt
Ke	Cost of Equity
PPE	Property, Plant & Equipment
PV	Present Value
R&D	Research & Development
Rf	Risk-Free rate
Rm	Return on the Market
TV	Terminal Value
t	Tax rate
WACC	Weighted Average Cost of Capital
YTM	Yield to Maturity

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