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Equity Valuation

Asos PLC

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Asos

High-growth outlook, tempered by re-investment

Asos is a leading online pure-play fashion retailer based in the UK. The company attracts more than 71,2m visitors every month and in 2014 it had 8,8m active customers from over 240 countries worldwide.

Overall, the online fashion retail industry has been growing at a high-pace, having achieved a 2009-2013 CAGR of 22,7% and is expected to continue growing in the next years, being forecasted a 2013-2017 CAGR of 13,9%. In this context, Asos has been thriving with relevant market share improvements worldwide and its future growth is expected to be driven by the expansion to less mature markets such as Russia, Japan and China, followed by Brazil and India.

This has been a challenging year for Asos with the China launch and the significant arising start-up costs, impacting its market price along the way (see chart). Despite this, Asos has reported FY14 results in-line to what it was forecasted. Its engagement customer metrics continued progressing strong and sales revenue showed resilience, with overall growth of 27%. Markets such as the UK and the rest of Europe rocketed above the 34% growth. Also, its own brand sales gained importance, representing in 2014 50% of Asos' total sales.

All of the expected operational changes, such as the zonal pricing, the move from a one-stock model pool to a multi-stock scheme and the IT enhancements of its website are already in course and are of extremely importance in order to pursue its target of becoming the number one online retailer of apparel in the world. Furthermore, Asos expects to invest in its business over £75m in IT and other £35m in office fit-out and warehouse infrastructures over the next two years. FY15E and FY16E results are expected to show the benefits from this heavy investment plan and operational improvements. Asos' CEO, Nick Robertson, has also stated that it is the company's commitment to succeed in China and that an operating investment of £7m in 2015 is anticipated.

Asos has given guidance to its medium-term sales target as well, setting it up to £2,5b and the expectation is that these forecasts are going to be met by the 2020s. However, it is perceived that there is risk associated with the estimates, substantially coming from the uncertainty of the effective implementation of all of the expected operational changes and its impact on the company's margins. Also, the forecasted revenue growth can come slower than expected, because of possible difficulties in penetrating new markets.

All in all, it is this study's opinion that this stock is overweight, therefore its return is expected to be above the average return of its industry's peers over the next year. Our DCF-based target price is of 3.054p.

Overweight

Asos Plc

Price: 2.833p

Price Target: 3.054p

Company Data

Price (p)	2.833
Market Cap (£m)	2.363
Shares Outstanding (m)	83
Date Of Price	29-Aug-14
Price Target (p)	3.054

JPM Valuation Target:

Price Target (p): 3.100

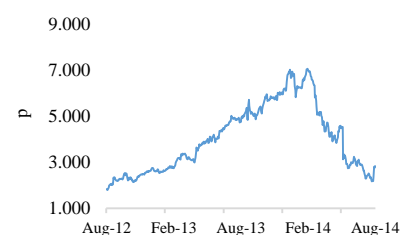
Date Of Price: 15-Sep-14

Price Target End Date: 31-Aug-15

52-week Range (p): 7.195-2.145

Rating: OW

Price Performance:



Abstract

This thesis aims to study the value of Asos PLC. The valuation was based in four methodologies, the Discounted Cash Flow (DCF), the Economic Value Added (EVA), the Trading Multiples and the Transaction Multiples.

Using the DCF method, a price of 3.054p was obtained and the EVA yielded a comparable lower value of 2.528p. Regarding the Relative Valuation, this was the method which delivered the lowest values of 1.573p for the Trading Multiples and 1.253p for the Transaction Multiples.

It was concluded that the four methodologies yielded different prices per share, though the DCF being the most accurate and complete model to demonstrate Asos' intrinsic value. Given this and comparing the DCF output to the market valuation, Asos' stock was rated as being Overweight.

Nonetheless, a sensitivity analysis was conducted in order to test how the valuation could change, along with the variation of some of the model's sources of uncertainty. The conclusion of this analysis was that, changes in both WACC and perpetual growth rate variables, would significantly affect the outcome of the valuation, although the WACC being responsible for greater impacts.

Additionally, a more in-depth analysis to Asos' stock price performance from 2001 to 2014 was conducted. When applying the Value at Risk statistical technique, it was concluded that, with 99% confidence level, an investor is exposed to the risk of losing 8,90% of the total amount invested in Asos.

Finally, this thesis' valuation was compared to the most recent J. P. Morgan report about this equity. Both final recommendations were DCF-based and some fundamental inputs were estimated very closely, such as the WACC and the perpetual growth rate. The report presented a final recommendation of Overweight, with a price target of 3.100p, being very approximate to the result of this study of 3.054p.

Preface

I would like to express gratitude to my thesis' instructor, José Carlos Tudela Martins, for giving me guidance and for his willingness to solve doubts and revise my work.

I would also like to show appreciation for the valuable inputs of my work colleagues, in special to Patricia Costa and Afonso Lima, for accompanying me during this learning process which is a master's thesis.

Finally, I would like to acknowledge the importance of my family support, in special of my parents and my sister, Catarina Marques, who actively intervened and gave valuable advices.

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1 Introduction

Financial assets are acquired based on the returns they are expected to yield for the investor. Therefore, in order to justify the price of any asset it is important to support it with a real and extensive valuation. Given the above, the aim of this thesis is to evaluate an European listed company, Asos PLC.

As a corporate finance discipline, Valuation has a lot of objectivity in its quantitative models, but also depends upon individual assumptions and subjectivity, thus not yielding clear-cut conclusions. The study begins by introducing the state-of-the-art in the field of Equity Valuation, explaining in depth the different techniques available, based on the work of the most recognized practitioners and researchers in the area. This section will also try to define the best models to apply for the company under analysis.

Afterwards, a study of the industry where Asos is present, its business and historical performance is going to be conducted in order to get a deeper knowledge of the company and its macroeconomic environment.

Before applying the different valuation methodologies, the valuation estimates and assumptions are going to be computed along with the definition of Asos' peer group.

In the following chapters the DCF, EVA and Relative Valuation methods are going to be implemented and the final outputs of each technique compared both to each other and to the market value of the company as of the 30th of August of 2014 (date of valuation).

Subsequently, a sensitivity analysis is going to be conducted in order to understand the impact of some sources of uncertainty in Asos' valuation. Also, the Value at Risk statistical measure is going to be calculated by analyzing the company's share price performance between 2001 and 2014, with the objective of quantifying the risk an investor faces when buying Asos' stock.

In the end, a comparison between this study and a J. P. Morgan investment report is going to be performed in order to analyze the differences and similarities in the inputs, outputs and final recommendations of both works.

2 Literature Review

The purpose of this chapter is to show the state-of-the-art in the field of equity valuation. According to Rosenbaum and Joshua Pearl (2009), “While valuation has always involved a great deal of “art” in addition to time-tested “science”, the artistry is perpetually evolving in accordance with market developments and conditions”. In this regard, this section aims, not only to give a better understanding of the different valuation techniques available, but also the most important valuation drivers in accordance to current market conditions. Moreover, this analysis will never lose the focus on the company being valued, therefore showing relevant discussions regarding the best methods to conduct Asos’ valuation.

“Value is the defining dimension of measurement in a market economy” and reflects the growth expectations of the investor in any asset compared to its initial cost, taking into account the amount of risk to which the investor is exposed. “The ultimate source of value” are the cash flows, which directly depend on the ability of the company “to earn a healthy return on invested capital (ROIC) and by its ability to grow” (Koller et al. 2010).

The measurement of value can be generally split into three main approaches, following Damodaran’s (2002) line of thought. The first is called the Discounted Cash Flow valuation and is based on the estimation of the future cash flows of an asset discounted to the present at a rate that appropriately incorporates risk. The second approach is the Relative Valuation and this method is based on variables of other comparable assets. Finally, there is the Contingent Claim approach, which can be used in any asset that incorporates an option. Additionally to

these three approaches, we are going to discuss the relevance of a profit-based model, the Economic Value Added. It is important to refer that each of these methods can result in different company values.

2.1 Relative Valuation

Relative Valuation is one of the most intuitive and easiest to understand approaches when trying to value any asset. This technique uses the market as benchmark to understand how similar assets are being priced. Of all the most well-known literature, Damodaran (2002) is the author who gives more detailed information about this approach.

There are plenty of ways to conduct a Relative Valuation, of which this thesis will emphasize the Trading Multiples and the Transaction Multiples. While the first uses current market valuations, the latter is based on the price that similar companies have recently been bought or sold for or, in other words, its exit valuation. The difference between the two is the magnitude of the transaction, as the first only captures small proportions of a stock and the second involves bigger corporate transactions, most of the times controlling stakes in the company.

Although this analysis is mostly done in a cross sectional basis, it can also be done across time. Nevertheless, this last method is more accurate when applied to mature companies, already in a steady state, otherwise its fundamentals would differ across time. Besides time and companies, fundamentals can also vary across countries, which will affect the multiple and reduce its comparability degree.

There are pros and cons regarding the use of Relative Valuation. Although it is a quick and easy method that relies in few assumptions, it can be challenging when there are no direct comparables or when these companies have negative earnings. Moreover, this approach is easier to manipulate and assumes that the market is correct when valuing single companies or even the entire sector. This method is also not capable of capturing company-specific details, because it is based on other companies' valuations.

2.1.1 The Peer Group

Constructing the peer group is the most difficult and crucial step in Relative Valuation.

Ideally, companies in the same peer group should have similar financial and operational characteristics as the company under analysis.

There are different methods to compute it and this thesis will follow Koller et al (2010) approach, which is based on collecting all the companies within the same industry (by industry classification) and then narrow the list by comparing the size, the profitability, the growth profile, the return on investment, the debt profile and other important ratios of each company against the one being valued.

Regarding the industry filter, these authors advise to try to use the finest industry classification as possible to have true comparables and to reach more accurate results.

2.1.2 Types of Multiples

There are Enterprise Value (EV) and Equity Value multiples. The main difference between the two is the measure of market valuation in use, where the latter has the flaw of being distorted by the capital structure. The multiples are calculated using an operating metric in the denominator, metric that has an important impact in the valuation depending on its degree of quality in translating the value of the company.

The EV to EBITDA “tells more about a company’s value than any other multiple” (Koller et al. 2010). The authors justify this by showing that this multiple depends on four main factors, which are the company’s growth, return on invested capital, operating tax rate and the cost of capital. Damodaran (2002) also refers that this multiple benefits from the fact that is not affected by different depreciation methods and is less probable of having a negative value, thus not being useful. On the other hand, there are some pitfalls identified in the literature about this multiple, such as the fact that it doesn’t include capital investments or the changes in net working capital (Fernández, 2002).

Another widely used multiple is the Price to Earnings. Besides the referred flaw of being distorted by capital structure, it also has the weakness of being affected by non-operating gains and losses, much of which non-cash items, and different taxation rules across countries.

There are other EV multiples, such as the EV to EBIT, the EV/EBT, the EV/earnings and the EV/sales. This last metric is not considered one of the best for valuation because companies among the same industry can have different operating margins and also because cash-flow generating capacity is what ultimately gives a company its value. However, it has become one important measure as it is the least accounting-affected multiple, available for every single

company, being the most comparable multiple across industries. Moreover, it has also become one of the most accepted metrics for valuing retailing companies.

Regarding the Equity multiples there is also the Price to Book, which compares the market capitalization to the book value of equity. This multiple is frequently used to make judgments about how over or under valued a company is, though getting a lot of criticism from those who do not believe that book values are a good measure of a company's value (essentially because they are highly linked to the acquisition prices). However, if used across companies with consistent accounting standards, this multiple can be a good tool for Relative Valuation purposes.

There are also other multiples based on non-financial information, which are the industry multiples. In the case of Internet companies like Asos, a widely used metric is the EV to active customers. Active customers are the clients that have actively been buying in the last year, which is a reasonable metric for valuing future cash flows. This type of multiples has the advantage of not depending on the financial results of the companies. There is also the EV to unique visitors, however “the market believed that merely stopping by would not translate to future cash flow for e-tailers” (Koller et al. 2010). There is a substantial pitfall in using this type of multiple, linked to the fact that it can only be computed for one specific industry, which is the possibility of persistent over or under valuation of an entire industry and the lack of a comparison basis.

2.2 Discounted Cash Flow Valuation (DCF)

The intrinsic value is the value of a company based on the expected cash flows from its business, discounted by a rate implied by the risk of these cash flows. The models we are going to talk about in this section try to estimate this value. Damodaran (2002) underlies that intrinsic value can differ from a company's price in the market.

This method is easy to use when the company has regular and positive cash flows. However, when the company is at early-stages or has negative cash flows, the discounted cash flow approach is more difficult to apply. There are other situations that create difficulties in using this method, which are the case of cyclical companies or private firms that require the use of information not publicly available. This type of model has the disadvantages of being very sensitive to the underlying assumptions, dependent on financial projections and of putting too much weight on the terminal value. On the other hand, it can be very flexible, market

independent and “a more fundamental approach to valuation” (Rosenbaum and Joshua Pearl 2009).

2.2.1 Free Cash Flow to the Firm (FCFF)

The FCFF is one of the Discounted Cash Flow methods that uses as relevant cash flow the amount that is available for all the shareholders and debt holders of the company (formula given by Equation 1) and the discount rate used is the return these investors demand on the cash flows. This method gives the value of the entire company.

$$\begin{aligned} FCFF = EBIT - Taxes\ On\ EBIT + Depreciation + Provisions \\ + Other\ non\ cash\ charges - Investment\ in\ NWC - Capex \end{aligned}$$

Equation 1

To estimate the cash flows that are left over to the capital investors of the company, one can start by the EBIT, subtract the taxes on these earnings and sum back the depreciations and provisions, because they are non-cash expenses. Afterwards, we have to subtract the capital expenditures and the investment in NWC, as these are cash outflows.

2.2.2 Free Cash Flow to the Equity (FCFE)

This second method is based on the cash flows available for the shareholders, after paying all the other claimholders of the firm. The discount rate to use in this method is the return demanded by the equity holders.

In order to estimate the cash that is left to the stockholders we can start by the FCFF (Equation 1) and add the variation of the net debt, either through cash inflows (issuance of new debt) or cash outflows (amortization of debt) and subtract the interest payments, as it is shown below:

$$FCFE = FCFF + \Delta Debt - Interest \times (1 - Taxes)$$

Equation 2

Thus, the FCFE measures what can be paid to the shareholders as dividends or stock buybacks and assumes that the company doesn't retain any cash. This model suits better companies that are typically stable and pay dividends.

2.2.2.1 Dividend Discount Model (DDM)

The DDM can be considered a special case of FCFE, where the cash flows are considered the dividends that the company is expected to pay. Myron J. Gordon and Eli Shapiro introduced the first version of this model in 1956.

The reasoning of the model comes from the fact that an investor when buying a stock can only expect to receive its dividends and the price for which it will sell the stock in the end. On its turn, the selling price is determined by the expectations on future dividends. The foundation of DDM is simply calculating the present value of all the expected future dividends.

If a company pays dividends equal to the FCFE, this model will give the same valuation as the FCFE method. It is only applicable to companies that regularly pay dividends. Due to this not being the case of Asos, this method is not going to be used.

2.2.3 Adjusted Present Value (APV)

Finally, there is another method that breaks down the value of the company in several pieces, valuing it separately (see Equation 3). According to Koller et al (2010) this model “follows directly from the teachings of economists Franco Modigliani and Merton Miller who proposed that (...) a company’s choice of financial structure will not affect the value of its economic assets.” Moreover, this author adds that “only market imperfections, such as taxes and distressed costs, affect enterprise value”.

This method starts by valuing the equity of the firm, assuming that it has no debt and discounts the FCFE at an unlevered cost of capital. After this, the debt effect is incorporated by adding up two components: the Present Value of Interest Tax Shields (PV ITS), which are the tax benefits of having a certain level of debt and the expected Bankruptcy Costs (BC). On its turn, the bankruptcy costs translate the risk that debt introduces in the company, which is the risk of going bankrupt.

$$EV = \text{Value of whole equity financed firm} + PV\ ITS + \text{expected BC}$$

Equation 3

This method has the advantage of allowing to discount separately, at different discount rates, each of the relevant components of the firm, depending on the riskiness it is exposed to. Also,

on the contrary of the previous DCF methods, APV doesn't assume a constant capital structure. On the other hand, calculating the probability of default and bankruptcy costs can be rather a difficult task.

2.2.4 The Discount Rate

In order to discount the relevant cash flows it is necessary an appropriate discount rate, which will depend on the type of cash flow used. How the discount rates can be estimated for each of the financing sources of the company, will be theme of this section.

2.2.4.1 Cost of Equity

There are different models for measuring the cost of equity, such as the Capital Asset Pricing Model (Sharpe 1964) and the Arbitrage Pricing Theory (Ross 1976). There are also other CAPM variations, such as the Fama and French three-factor model (1993), which adds up the size and growth dimensions and the Carhart model (1997) that inputs the momentum factor into the equation.

Even though there has been an extensive study on this area, CAPM is still the most common model currently in use and was first introduced by William Sharpe in 1964. It is given by the following formula:

$$E(R) = R_f + \beta(R_m - R_f)$$

Equation 4

As it can be seen in the formula above, this model says that the “risk of any asset to an investor is the risk added by that asset to the investor’s overall portfolio” and “in the CAPM world, where all the investors hold the market portfolio, will be the risk that this asset adds on to the market portfolio.” (Damodaran 2002).

2.2.4.1.1 The Risk Free Rate (R_f)

The risk free rate is the rate of return of a riskless asset. An asset is considered to be riskless when its returns can be predicted with certainty. This only happens if there isn't any source of risk affecting the returns; mainly default risk or reinvestment risk, when talking about long-term investments. Given this framework, the only assets that meet these criteria are the government treasury bonds, because these are the entities that control the issuance of money, therefore being able to honor their commitments. The cash flows currency should

determine the risk free rate to use in the case there is a default-free entity issuing bonds. On the other hand, when this entity isn't default free one should adjust the government borrowing-rate with a default spread. In the case of Asos, it is going to be used the United Kingdom treasury bond rate of return of 10 years, assuming an equity investment is done in the long-term.

2.2.4.1.2 The Beta (β)

Beta is a measure of volatility of an asset against the market or, in other words, a measure of an asset's undiversifiable risk. It results from the comparison of the company's historical market prices with the market index. It can vary between 0 and 1, the latter meaning that the asset varies with the market. In the case the company is not listed, comparable companies need to be used.

There is the common use of Service Betas, which are betas calculated by an estimation service, such as Bloomberg or Reuters. In this case, it is important to understand the procedures that the service uses to calculate the Beta in regards to the estimation window, the periodicity of the data and the market index. The estimation window should be large enough to include more data, as far as the company has not recently changed the risk of its business. The periodicity should be monthly or yearly in order to avoid the typical noise that comes from the daily trading and the market index should be the correspondent to the domestic market of the stock or, in the case of a cross-border investor, an international index.

For Asos the Beta that is going to be used is the one provided by the Reuters service. This source calculates the Beta based on five years of monthly data (60 months) and compares Asos' prices to the FTSE 100.

2.2.4.1.3 The Market Risk Premium ($R_m - R_f$)

The Market Risk Premium is the return an investor demands for its investment in a risky asset instead of a risk-free investment. Usually, the riskier the investment, the bigger the extra return expected by the investor. Generally, the basic formula for this measure can be written as follows:

$$\text{Market risk premium} = \text{Base Premium for Mature Equity Market} + \text{Country Risk Premium}$$

Equation 5

Relatively to the first part of the formula it is fair to use the analysts' consensus of 5,51%, which basically corresponds to the “geometric average premium earned by stocks over treasury bonds” in the US “between 1928 and 2000”. This value is repeatedly in use because the US market is considered mature with “sufficient historical data to make a reasonable estimate” (Damodaran 2002).

The second element, the country risk premium, is added to the equity risk premium in order to compensate the investor for taking additional risk by investing in a non-domestic company. In this matter, there are two schools of thoughts, the ones who defend the existence of this premium and the ones who don't.

The country risk is usually higher for developing markets than for developed ones, because of the higher uncertainty surrounding the macroeconomic conditions. In this point of view, Asos' stock is listed in the United Kingdom, which isn't considered a risky market, and most of its revenue comes from developed countries. Following this line of thought, an investor investing in Asos' equity would still be exposed to a country risk just because of the fact of investing in an international company. However, for this purposes, only the risk that cannot be diversified away matters.

Asos' stock is currently held in 28,06% by a strategic investor (the Bestseller group) and in 10,19% by the CEO of the company (Nick Robertson). Most of the remaining investors consist of groups of investment companies or international funds, which have global exposure, holding global portfolios. The latter are the investors expected to trade on Asos' stock the most, because of its purely financial purposes, which makes the company's marginal investors diversified entities. For this reason, there is no need to add a country risk premium to the calculation of the cost of capital.

2.2.4.2 Cost of Debt

Usually there are other sources of financing in a company, such as debt or securities with a mix of debt and equity characteristics.

The cost of debt is the cost of borrowing money to the bank or other financial institution. If the company holds bonds highly traded, it is typically used its market price. If this doesn't happen, the correspondent spread to the company rating can be used. In the case of private companies we usually look to its borrowing history to see the typical spread used.

The calculation of the cost of debt should also take into account the fact that interest is tax deductible. The after-tax cost of debt of a company can be calculated using the following formula:

$$\text{After Tax } R_d = (R_f - \text{Default Spread}) \times (1 - t)$$

Equation 6

2.2.4.3 The WACC

The WACC, or the cost of capital, is the weighted average of all the costs of financing that exist in a company, usually the cost of equity, the cost of debt and eventually the cost of preferred stock. It is the rate used to calculate the present value of the cash flows and the terminal value. The formula is the following:

$$\text{WACC} = \frac{D}{EV} \times R_d \times (1 - t) + \frac{E}{EV} \times R_e + \frac{P}{EV} \times R_p$$

Equation 7

Each cost is weighted by its value over the total Enterprise Value. These ratios have to be considered according to the market values and not the book values.

The Equity market value is the market capitalization of the company, which is obtained by multiplying the total number of shares by its current market valuation.

In order to reach the market value of debt, if it is in form of bonds, we use directly its market value, but if it is in form of bank debt it should be treated as an one-coupon bond.

2.2.5 The Terminal Value

The terminal value is calculated to estimate the value of a company after the explicit forecast period, being an important part of a DCF valuation, as it gives it the necessary closure, whether the company is sold afterwards or lives infinitely. The explicit forecast

period is the number of years of cash flow estimation, considered to be the necessary period for the company to stabilize its growth.

This value can be calculated in four different ways, which are the liquidation value, the replacement cost or through a going concern point of view, which can be applied through two different methods. The first is applying a multiple to a fundamental variable and the second assumes that the company will have a stable growth in perpetuity.

The last method is based in a perpetual growth model, which assumes that the company will continue to reinvest its cash flows to infinity. According to Damodaran (2002) the formula to calculate the value is as follows:

$$\mathbf{Terminal\ value}_T = \frac{Cash\ Flow_{T+1}}{r - g_{stable}}$$

Equation 8

This part is usually the one that has the biggest weight in the valuation, therefore the need to correctly estimate all its components. According to Damodaran (2002), “critics of the approach argue that too great a proportion of the DCF value comes from the terminal value and that it is easy to manipulate”.

The stable growth rate is essential in this equation. As this is the company’s perpetual growth rate, it should fall between the expected inflation rate (usually between 2-3%) and the expected nominal growth of the economy (typically of 4-5%), never outpacing this value as it would translate that the company is expected to grow more than the economy forever.

2.3 Real Option Theory

According to Koller et al (2010), Real Option Theory is an attempt “to translate the concepts of replicating portfolio to corporate valuation”. Replicating portfolio model was developed by Robert Merton, Myron Scholes and Fischer Black in 1973 and is based on the premises that “if there exists a portfolio of traded securities whose future cash flows perfectly mimic the security you are attempting to value, the portfolio and security must have the same price.” (Koller et al. 2010). Furthermore, this model “avoids the need to estimate either cash flows or the cost of capital” as long as a suitable replicating portfolio can be found (Koller et al. 2010).

Real option valuation assumes that the management is active and is able to continuously and timely react to market changes. There are several methods to conduct this type of analysis, which are the Black and Scholes, the Binomial model and Monte Carlo iterative method. According to Damodaran (2002), using this type of company's valuation only makes sense if a "bulk of their value form assets that resemble options" and these can be either options to contract, to abandon, to expand or to switch.

2.4 Economic Value Added (EVA)

Economic profit-based models highlight "whether a company is earning its cost of capital and how its financial performance is expected to change over time" (Koller et al. 2010). Furthermore, it provides insight of "how and when the company creates value" (Koller et al. 2010).

EVA is frequently compared to the DCF method as a much simpler and not as assumption-based and market dependent. Moreover, the two methods should yield the same valuation, unless any adjustments are made to the components of EVA.

This method values the "dollar surplus value created by an investment" (Damodaran 2002) and is calculated based on the following formula:

$$EVA = \text{After tax operating income} - (\text{Cost of Capital} \times \text{Invested Capital})$$

Equation 9

Based on this calculation, the EV of a company would be the "capital invested in assets in place, (plus) the present value of the economic value added by these assets and the expected present value of the economic value that will be added by future investments" (Damodaran 2002). The first part evaluates the "quality of assets in place" and, according to this author, the best approximation to its market value is the book value of capital adjusted for operating leases (reclassified as debt). The company's market capitalization should never be used because the price incorporates expectations on future growth, which doesn't allow to judge the value created only by the assets already in place. In order to compute each year's EVA, non-recurrent charges need to be eliminated from the operating income.

EVA has its own flaws like all of the other methods discussed previously. This technique is increasingly "skewed towards assets in place and away from future growth" (Damodaran

2002). Therefore it is exposed to possible manager attempts to increase economic value through reducing the capital invested or making riskier investments (risk shifting phenomenon), all possible at the expense of lower future growth.

2.5 Conclusion

There are several ways to value a firm. Generally there are three main approaches: DCF valuation, Relative Valuation and Option Pricing Theory, each having its advantages and disadvantages. One of the most important steps in valuing a firm is exactly to choose the right models regarding the characteristics of the company under analysis.

Firstly, it is important to value Asos through both the intrinsic value and market value perspectives, in order to compare methods based in opposite foundations and avoid relying too much on market moods or cash flow projections.

In terms of choosing the most adequate DCF model, as Asos has no debt it is indifferent to use one or another, therefore the choice will be the FCFF.

Regarding Relative Valuation, both Trading and Transaction multiples will be used.

Real option theory does not apply to Asos because it only makes sense in situations where the firm has valuable options (not only the opportunity) to delay or to pursue an investment decision. Dividend Discount Model is also not going to be used in this thesis because the company hasn't paid any dividend in the last years.

In addition, the Economic Value Added model is going to be applied as it brings another perspective to this thesis based on the idea of economic profit, which is the basis of the classic financial theory. This model will allow forming judgments on the capability of Asos to create wealth.

In the end, the final results of these valuations will be compared to each other and to J.P. Morgan financial analysts' valuation of Asos.

3 Industry Overview

3.1 Global Overview

Asos is established in the online retail industry, more specifically in the apparel segment. Considering that the company markets its products through the online channel, it is important to understand the overall framing of this industry and its fundamental drivers. Furthermore, it is necessary to analyze the behavior of the apparel segment in a global and regional perspective, based on Asos' worldwide presence.

Firstly the e-commerce retail is defined by the sale of products and services via Internet using any type of device, from a computer to a mobile phone. The sales of this industry are naturally tied to the digital buyers' base and its evolution over time. As it can be seen in Chart 1, North America is the region more prone to purchase items online and also more mature with 72% of penetration, followed by Western Europe with 64%. Markets such as Eastern Europe, Asia-Pacific, Latin America and Middle East and Africa (MEA) still have a high room for growth.

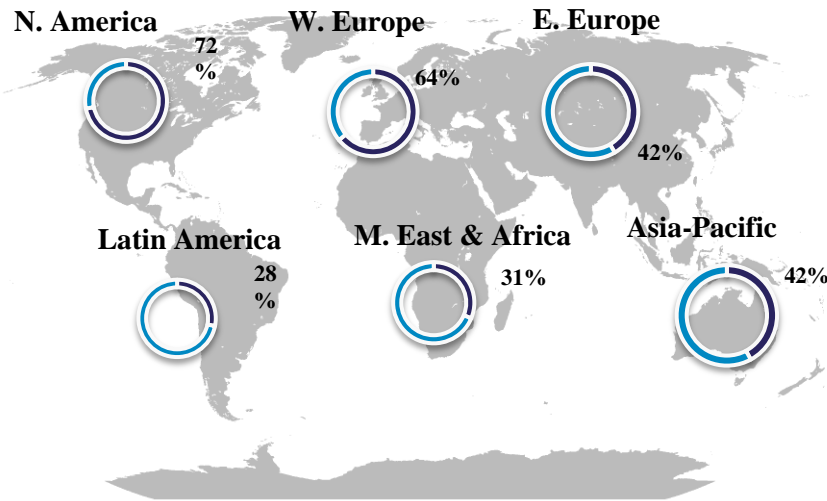


Chart 1 – Digital Buyer World Penetration (Source: eMarketer, accessed October 1, 2014)

The online retail industry is valued in £464b (value as of 2013). North America takes the lead with 35% market share of 2013 total online sales, Asia-Pacific accounts with 28% and Western Europe with 26%. These three regions total approximately 90% of the market (see Chart 2).

An important conclusion that can be taken by the analysis of the two figures together is that the Asian-Pacific region is the most promising market in the future, since it only has approximately 50% of online penetration and it is already the second largest market share in the online retail world.

The industry has been growing at a high pace because retailers are increasingly going online in order to expand its business in a faster way and lighter in investment, comparing to expanding physically. On the other hand, consumers across the globe are increasingly going online chasing cheaper and more convenient ways to shop.

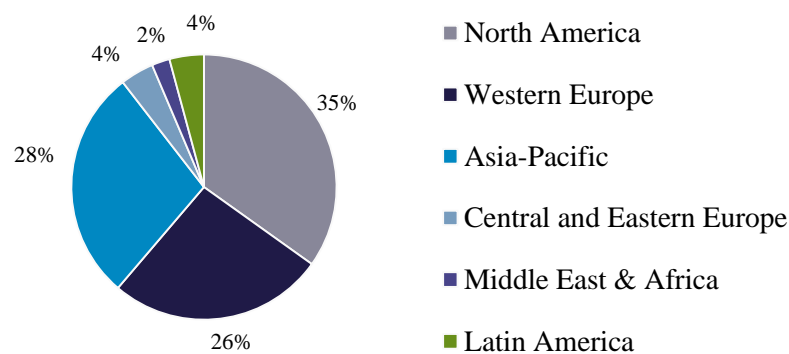


Chart 2 – E-Commerce Market Share Worldwide (2013) (Source: AT&T Global Retail E-Commerce 2013)

Historically, the apparel segment was a difficult market to operate online and has taken longer to develop comparing to other segments, as it represents the type of product that the buyers need to touch and try on before making the final purchase. This is no longer seen as a deterrent for growth, in part due to the retailers' efforts to improve the online shopping experience in terms of website interactivity with the customer, payment methods and exchange/return options.

The pure online players have to compete with each other, plus the catalogues and the brick-and-mortar companies, most of the times at an international level. In the apparel retail, the brick-and-mortar still have an important share of the market, since a high portion of the consumers are traditional buyers. However, a shift from the more traditional channels to the online has been happening most of the times because of the products' lower prices and the increased convenience of search, price comparison and delivery.

The online fashion industry is valued up to £88b in 2013 (see Chart 3). It has been increasing since 2008 at the very fast pace of 22,7% annually and is expected to continue growing in the next years at a slower pace, as the market becomes more mature. Nonetheless it still represents a predicted total market worth for 2017 of £148b.

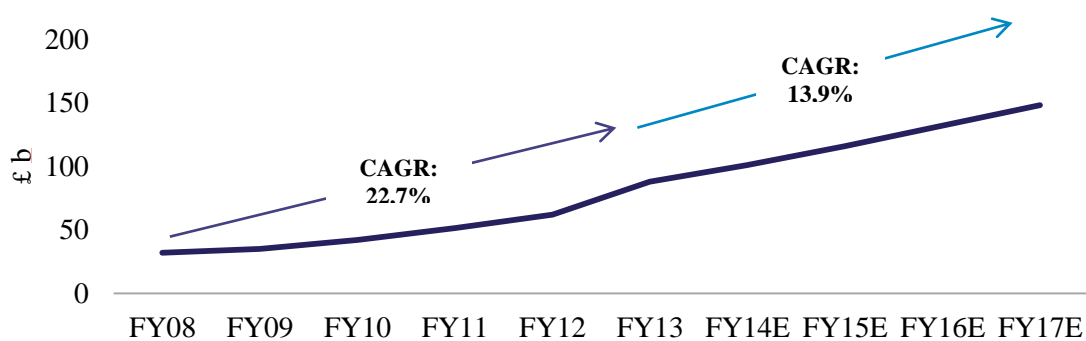


Chart 3 – World Online Sales of Apparel (Source: eMarketer, accessed September 30, 2014)

3.2 Regional Overview

The UK is the most important market for Asos as it is its home market. It represented, in 2014, 39% of the company's total sales.

The UK is the most developed and biggest market for e-commerce in terms of Internet orders weight on total retail sales (11%) (Euromonitor International 2014). However, the online

clothing segment in this market is approaching a more mature phase, having already a high level of penetration (66%). Moreover, the competition is increasing from the brick-and-mortar renowned brands that are going online in order to expand. The sales are expected to grow from £5,4 to £8,2b between 2013 and 2017 (see Chart 4).

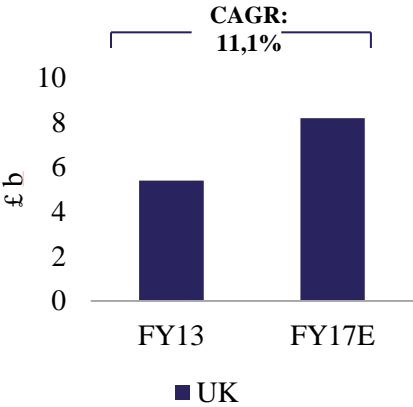


Chart 4 – UK Online Apparel Market (Source: AT Kearney Global Retail E-Commerce 2013)

The US is the biggest online market by absolute turnover estimated to be worth £25,4b in 2013. It has an advanced infrastructure and a very rich customer base, with a population that is long used to buy online. It is an important market for Asos, already representing 10% of last year’s total sales. The industry forecasts a CAGR of 17,1% from 2013 to 2017, which makes the US a market with good potential for growth (see Chart 5).

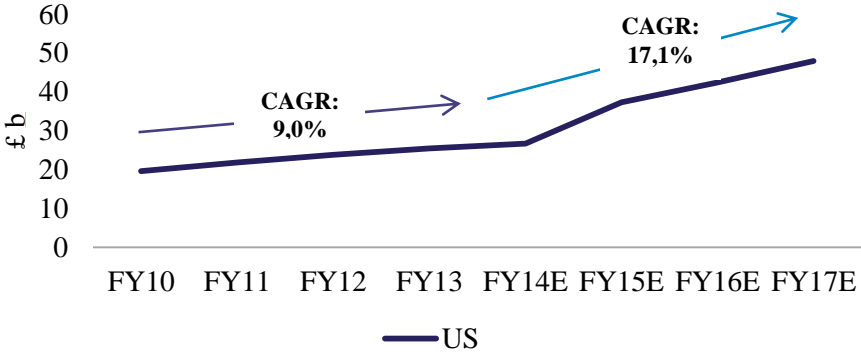


Chart 5 – US Online Apparel Market (Source: Bloomberg, Statista, accessed October 10, 2014)

Europe is also a growing market in the industry and is expected to continue to have a consistently robust performance. The two largest European online markets are France and Germany, which together have the same volume of sales as the US. The European region

accounts for 27% of Asos' sales and half of this comes from these two countries. On the other hand, the Eastern European countries have yet low levels of online penetration.

Germany is becoming a global power with 64% of e-tail penetration and expected growth of 14,9% annually through 2017, which makes it the fastest growing country in Western Europe in this industry. In 2017 it is expected to have £9,4b of total online fashion sales.

France has already 35m online buyers (70% penetration) that will be spending in 2017 approximately £3,6b on clothes.

Another important market for Asos is the Australian, representing approximately 10% of its sales. It is expected to continue to grow but the trajectory will slow down as its population consists of only 21b people, 33% of UK's population.

There are other attractive markets that Asos has not significantly penetrated yet but is actively targeting in order to continue growing.

Russia is a fast-pace growing market for the online apparel. It is yet in its early stages and is estimated to grow at an annual rate of 18,1% from 2013 to 2018.

Japan is also an important opportunity for Asos as its 15-34 female population accounts for approximately 14m, which represents 1,7 times of the same segment in the UK, according to a J.P. Morgan research (J.P. Morgan 2014). Its market for online fashion is estimated to reach the £9b in 2018.

Finally, Asos is currently in early stages of expansion to China and this market is a material opportunity for future growth because of its population size. Online penetration was in 2013 around 6%, which translated in £10,8b sales of online apparel. This low level of penetration shows the potential of this region. ATKearney (2013) predicts a CAGR of 33,5% on China's sales through 2018 (see Chart 6).

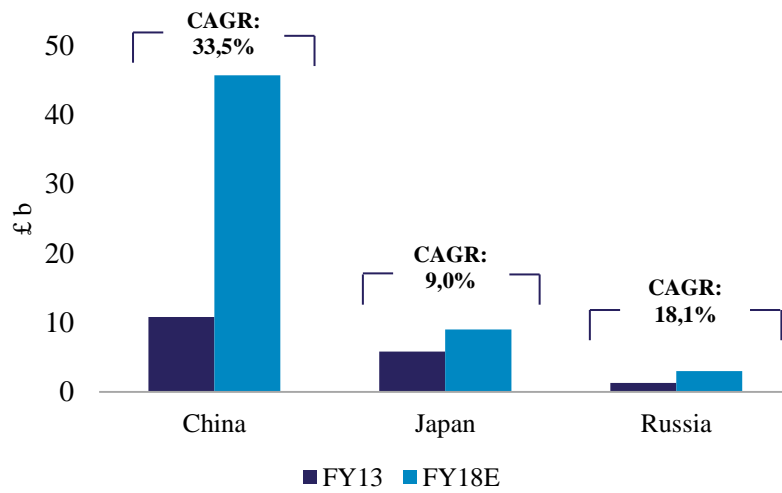


Chart 6 – Material RoW Opportunities (Source: AT&Kearney Global Retail E-Commerce 2013)

4 Asos PLC

4.1 Company Overview

Asos is an online pure-play fashion retailer based in the UK that targets the 20-somethings year old men and women worldwide. Its name stands for “as seen on screen” and sells over 800 third party brands and also its own-label products.

The company was formally founded in 2000 by Nick Robertson and Quentin Griffiths with the launch of the website AsSeenOnScreen. Asos went public in this same year through an IPO in the London Stock Exchange’s alternative investment market.

In 2003 introduced its first own-label collection and in 2010 begun tailoring country-specific websites starting with France, Germany and US and posteriorly for Australia, Spain and Italy. Asos also created a new channel to market its products with the launch of Asos apps for iphones and ipads.

In 2012 Asos was considered the most visited website in the world by 18-34-year-olds, which pointed out an important mark in the company’s story of success. In this year also expanded its global coverage by launching a Russian website and opening its first international office in Australia. In 2013 Asos continued its expansion and opened new offices in US, France, Germany and China (see Chart 7). More recently, a new country-specific website in China was introduced.

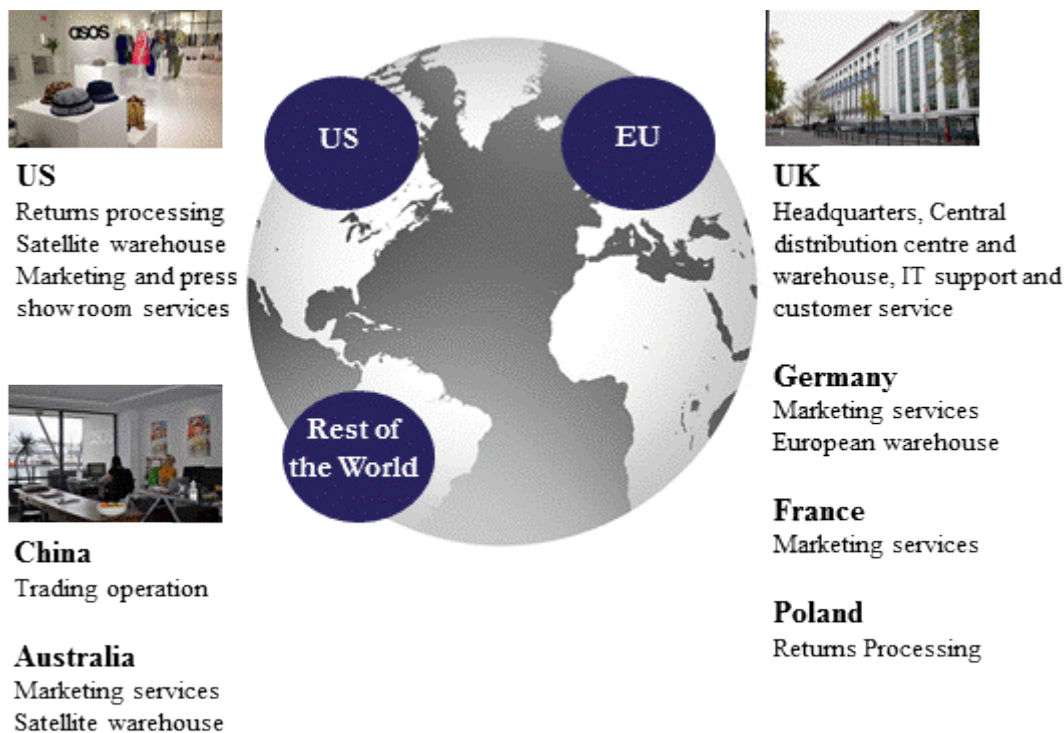


Chart 7 – Asos' Footprint (Source: company data)

As it can be seen, Asos has been very active in its expansion strategy by targeting new markets and creating country-specific websites accordingly. Nonetheless, it is currently selling its products to over 240 countries, which makes it the truly global brand it has proposed to be since its launch. Moreover, the opening of new warehouses worldwide allows Asos to pursue its ultimate goal of being a highly efficient retailer.

The company attracts more than 71,2m visitors every month and at the end-august 2014 it had 8,8m active customers (customer base increased 25% in relation to 2013), defined as having shopped in the last 12 months. Asos employs a total of 1.813 people and other 3.000 through outsourced partners. It is a multi-award winner company, having received in 2014 the distinction of the best retailer by the Internet Retailing Awards.

Bestseller, a Danish clothing company is its biggest shareholder, having a 28% stake through a company named Aktielskabet. The remaining important shareholdings that lie above the 3% are Nick Robertson, the founder and owner of Asos and the investment companies: The Capital Group, FMR LLC, Baillie Gifford & Co, Standard Life Investments and Tybourn Capital Management. There is 10% of the company ownership that is not in public hands and the remaining 23% constitute free-float, which has been listed for trading in the London Stock Exchange (see Chart 8).

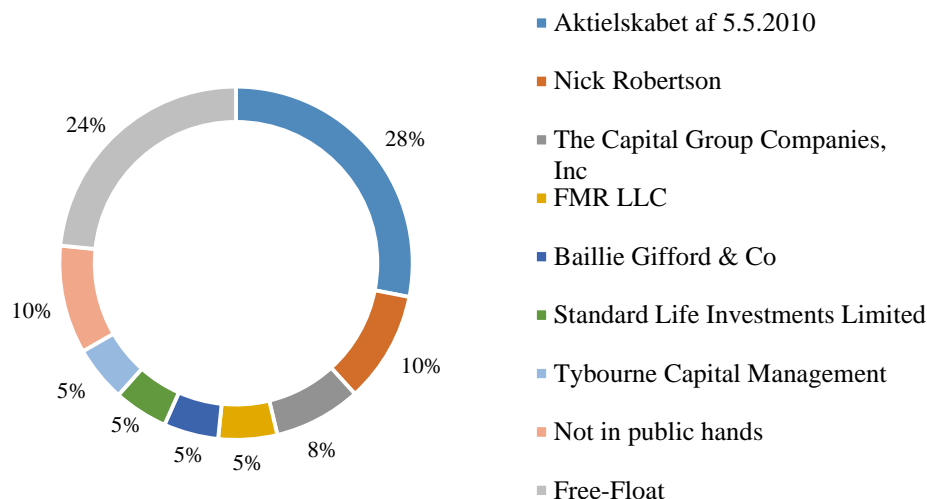


Chart 8 – Shareholder's Base as at 31 December 2014 (Source: company data)

4.2 Business Overview

Asos sells over 75.000 products through its websites and launches up to 2.750 new styles every week in order to guarantee that the customers have a wide range of choice. Its products include all the type of clothes, footwear and accessories, which can be own-brand items or third-party brands. The other brands range from big well-known fashion houses, such as Pull&Bear and American Apparel, to up-coming new designers' creations.

The company's business model is more than just a website that sells fashion, but also a forum that all the fashion-lovers visit in order to discover trends, inspiration and to share ideas with each other.

Its pricing strategy is set in accordance to the public it attracts, which expects affordable items. However, although pursuing a competitive pricing strategy, Asos doesn't operate as a discount retailer.

Asos' business workflow starts by receiving the customers' orders through the various country-specific websites. With more than 61% of its sales coming from outside the UK, the following step, the shipment, is one of the most vital in the whole chain because the speed of the delivery highly determines the quality of the service. Until 2014, the company worked through only one warehouse in the UK and a satellite warehouse in the US. This year a first European warehouse was created in Germany in order for Asos to be closer to this market.

The shipment is free of cost for the customers in any order above the £15. The final step in the workflow is the returns processing, which is done locally through satellite warehouses set up in the US, Australia, China and Europe.

Chart 9 below shows the behaviour of revenues by destination from 2012 to 2014 and gives an understanding of the weight of each market within the total revenues in 2014. UK and RoW markets have been losing importance to the US and other European countries. Nevertheless, the UK continues to be the most important destination with 39% of the total revenues in 2014. As far as Europe is concerned, France and Germany account for approximately 50% of the total sales and regarding the rest of world, Australia, Russia and China recorded around 20% of the total sales.

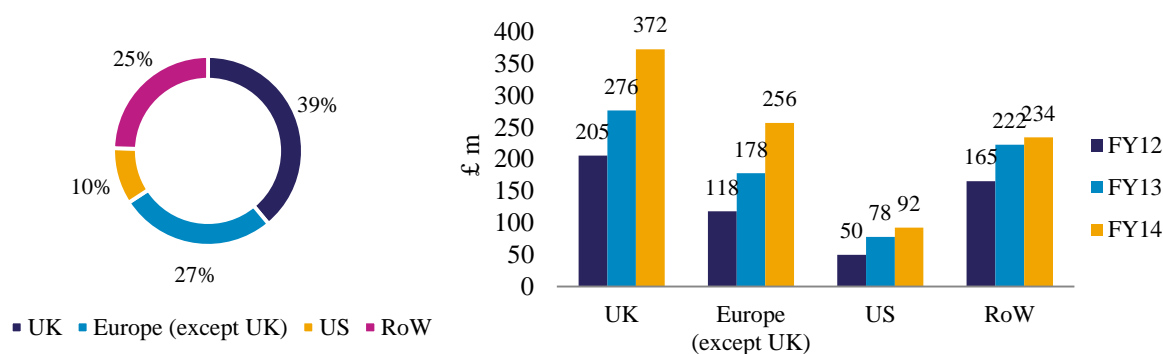


Chart 9 – Asos' Sales by Destination (Source: company data)

Asos' own-label has been growing, representing in 2014, 50% of the total sales, which shows that its brand is gaining power worldwide. According to Comscore, Asos ranks among the best online apparel retailers in the world, measured in monthly visits, having reached the leading position in Australia, Denmark, New Zealand and the UK in 2014.

In conclusion, Asos has been developing a brand and an engaging experience around its business, which allowed starting a virtuous cycle of increasing traffic growth and constant reinvestment in the expansion and development of the company.

4.3 The Outlook

Asos has yet to win the global race it has set itself since its foundation. Given the international nature of the e-commerce business, it has to design a global strategy that fits each of its target countries.

Since 2010, the company has been investing in the creation of platforms that allow them to talk to almost all the customers in the world in their own language. It has also been expanding its offices to other countries, mainly for marketing and logistical purposes.

The next steps in the future of Asos are the creation of zonal pricing and merchandising. Naturally the regional stock pools need to be the first measure to implement, since the zonal pricing is a more complex step that highly depends on the decentralization of the business.

The creation of more localized warehouses will allow them to achieve faster delivery and process returns, both being important sales drivers in the e-commerce business. It will also allow, after the initial investment, to reduce distribution and return costs.

The zonal pricing step is also important for the evolution of the company and it means that the prices will be country-customized according to every regional currency. This measure will avoid mistakes such as pricing the products as bargains or too expensive, what currently happens in a frequent basis as Asos is directly converting the prices into local currencies at the spot rate.

Other business plans include the capacity improvement of its main warehouse in the UK, more targeted digital marketing, improved and faster technology and more local apps for the mobile channel, all of these measures being important conversion and traffic drivers.

Asos' capital expenditures for the short-run are predicted to be approximately £75m for IT and £35m for the warehouse and capacity improvements. The expenditures in the long-run are predicted to be maintained at 5% of the total turnover every year, similar to the company's historical investment figures. All in all will allow Asos to build sales capacity for £2,5 billion in 2020.

4.4 The Peer Group

The computation of the peer group is necessary in order to conduct a Relative Valuation. This type of analysis is naturally very sensible to the peers chosen, therefore it is important to use the right peer group.

The first step to find listed comparables was taking into consideration the set of companies that all the major databases suggested, including Bloomberg, Capital IQ, Yahoo Finance and Reuters. It was also performed a specific research by industry classification, using the Orbis

database as main tool, complemented with the major e-commerce associations information. Finally, it was also taken into account Equity Research Reports by J.P. Morgan, about the company under analysis. The group obtained was considerably heterogeneous in terms of the industry the companies were truly operating in and this happened mainly because there is a lack of listed direct comparables for Asos. Besides the online fashion retailers, there were retailers of non-fashion products and also players with physical stores.

The following step was analyzing the differences between the performances of the companies in order to appropriately narrow the peer group. It was given relatively higher importance to measures such as dimension (by turnover and market cap), 2012-2014 CAGR, margins EBITDA, EBIT and net income, net debt, liquidity, solvency and ROIC. It was concluded that companies operating in broader segments than the online fashion retail have considerably different financial and operating ratios, therefore biasing the valuation.

In the end, in order to have an accurate set of peers, a group initially composed by thirteen companies (Appendix A) ended up with only three companies, Yoxx S.P.A., Boohoo.Com PLC and Zulily, Inc (Appendix B). All the companies are global internet retailers, of which the first two operating only in the apparel segment and the last one also selling other type of products. Although not being truly apparel retailer, Zulily concentrates more than 60% of its business in this segment.

As it can be seen from the table in Appendix B, the companies fall in a similar performance bucket in terms of margins, net debt, liquidity and solvency ratios. Moreover, this sample of companies shows the most important characteristics set out by Koller et al (2010), which is having identical outlooks for growth and ROIC.

There is a pitfall in this analysis that one cannot ignore, which is the dimension of these companies comparing to Asos, both in terms of turnover and market cap. Considering this, one should use the trading multiples valuation carefully and as a complement to the other valuation methods in order to test the reasonability of cash flow forecasts and to understand how the market is valuing similar assets.

5 The Weighted Average Cost of Capital (WACC)

In this chapter the focus will be in the calculation of the discount rate to use in the DCF valuation. As we have seen in the literature review, the WACC is the cost of capital and is estimated as a weighted average of all the costs of financing of a company.

5.1 The Risk Free Rate and the Market Risk Premium

The risk free rate and the market risk premium are two important components of the cost of equity of a company.

Firstly, the risk free rate is the rate of return of the government treasury bonds correspondent to the currency of the cash flows of the company being analyzed. For Asos, it is going to be used the United Kingdom treasury bond rate of return with a maturity of 10 years (UK Gilt 10 Year), assuming an equity investment is done in the long-term, which, according to Bloomberg, is 1,75%.

Secondly, the market risk premium can be defined as the return the investor demands for its investment in a risky asset, instead of a risk-free investment. According to Damodaran (2002), the US, being a mature market with sufficient historical data, is a reasonable market to estimate this component. Therefore, the referred author indicates the 5,51%, correspondent to the “geometric average premium earned by stocks over treasury bonds” in the US between 1928 and 2000. This value is frequently used by the analysts as the consensus value.

Furthermore, in this thesis we are assuming that there is no country premium by investing in this stock, subject explained in detail in the literature review (section 2.2.4.1.3).

5.2 The Beta

There is another important component of the cost of equity that measures the volatility of an asset against the market, capturing its undiversifiable risk.

For Asos, it is going to be used a Service Beta, provided by Reuters. This source provides an estimate of the Beta of 1,21 and is based on five years of monthly data (60 months), comparing Asos' prices to the FTSE 100. This source provides a sufficient large estimation window and a periodicity that isn't affected by daily or weekly trading noise.

5.3 The Cost of Equity and the WACC

As it was previously discussed in the literature review section, the CAPM was chosen to compute the cost of equity of Asos, as it is still the most common model currently in use (given by Equation 4). Filling the equation with all the inputs we arrive to a cost of equity of 8,42%.

Given that Asos doesn't have debt or other mixed instruments, its capital structure consists of 100% equity. For that reason, the WACC will be exactly the cost of equity. This variable has a great impact in the valuation, therefore it is going to be subjected to a sensitivity analysis.

6 Valuation Estimates

In this section it will be discussed all the assumptions taken to build Asos' valuation model. In order to do so, the evolution of all the Income Statement (IS) and Balance Sheet (BS) components had to be estimated. A 10-year explicit period (2015 to 2024) was used, period considered necessary for the company to stabilize its activity, which is presently experiencing a strong growth.

Most of the analysis was done separately by market, generally divided into four regions: the United Kingdom (UK), the rest of Europe (EU), the United States (US) and the rest of the world (RoW).

The reported and forecasted IS, BS and Statement of Flows can be found in the Appendixes H, I and J, respectively.

6.1 Revenue

Revenue projections are one of the most important assumptions behind any valuation model as they will serve as the basis to drive most of the components in a company's financial statements.

In order to estimate it the less subjectively as possible, it was based in Asos' share of traffic historical evolution indicator, which is provided by Comscore for the markets where the company has significant presence. This share of traffic indicator was then translated into a market share by weighting Asos' sales in each market over the corresponding value of the

online apparel market in each region. In the regions where the share of traffic has been growing consecutively in the last three years, it was estimated a market share gradual increase of 0,2 percentage points until 2017. In regions where the share of traffic is stable at least for the last two years or where Asos is already the number one retailer, the market share was forecasted to remain unchanged in the future. Finally, if the share of traffic has been downgrading, which is only the case of some European regions, the correspondent market share was considered to have a 0,2 percentage points gradual decrease in the next three years. The size of the online apparel market in each region was based on the A. T. Kearney 2013 study, which gives a regional overview of the market evolution from 2013 until 2017 (ATKearney 2013). The regions not included in this study were estimated to grow at the GDP nominal growth rate estimated until 2017, based on CBO data (CBO 2014).

Finally, from 2017 to 2024, in order to translate the projected stabilization trend in the company’s revenue, its evolution was based on the average of the last two years percentage growth minus 0,01 in the most mature markets (UK and EU) and minus 0,1 in the US and in the RoW (most mature markets already presenting lower growth rates than the other markets).

The revenue calculations and the final projected revenue for each year of the explicit period can be found in Appendix E and the 2015-2024 revenue evolution by region is presented in Chart 10.

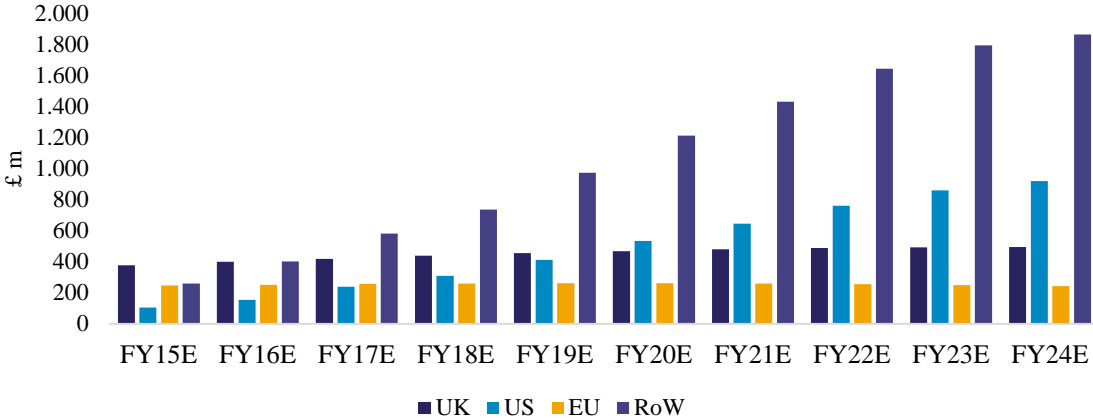


Chart 10 – Revenue Projections by region (2015-2024)

As it can be seen from the chart above, Asos’ growth in the future is driven essentially by the RoW regions such as China, Russia and Japan and by the US market, countries with great

potential because of both the current size and the expected growth of its online apparel market.

Asos already started investing on providing better and more customized services and improved technology in these regions in the past year. In 2014 Comscore apparel retail global positioning rankings showed improved performance for Asos in these regions, being already the 7th most visited online retailer in Russia and the 43rd in China, coming from the 71st position in 2013.

6.2 COGS

This cost is typically calculated as a percentage of the sales. In the case of Asos, we have sufficient information to make it possible to segregate the historical costs by market, which will be used to estimate the costs in the future.

The COGS projected for the explicit period will be a percentage of the sales of each market, based on an average of the historical percentages. As it can be seen in Chart 11, the COGS of the company will have a decreasing weight in the sales with correspondent margin improvements. This happens because the markets with better margins, the US and the RoW, increase its importance in the company’s total sales (please refer to Appendix M for more detail on the COGS and margins by region).

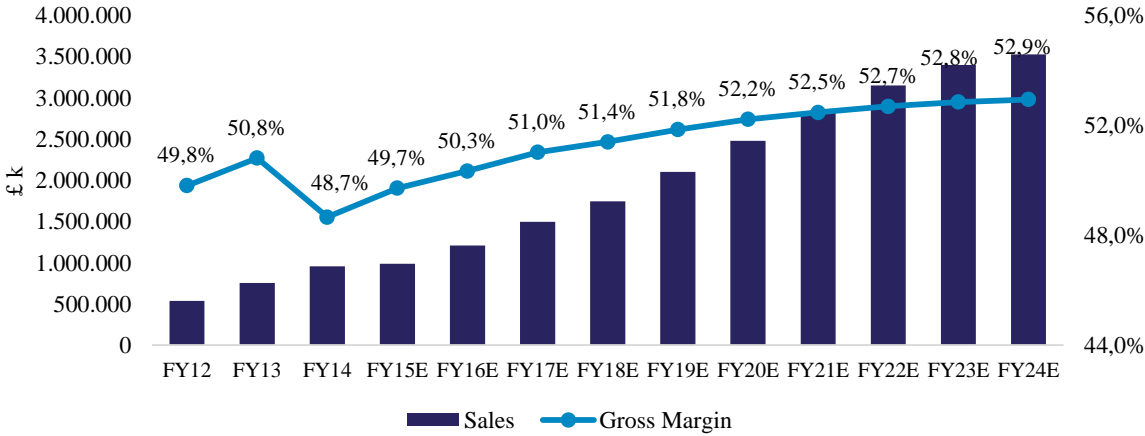


Chart 11 – Gross Margin (2012-2024)

6.3 Other Operational Expenses

For the operational expenses the same *rationale* was used whenever the weight of the cost over the sales showed a fairly stable pattern between 2012 and 2014. Therefore, in this case, the average of the last three historical years was used.

The warehousing costs are an exception to this procedure because the company incurred in non-recurrent costs in 2014, relating to the expansion of the activities to China. The losses were estimated to be approximately £8.600k and because of its non-recurrent nature were reclassified from General & Administrative Expenses to non-operational costs in 2014, in order to not affect the EBITDA. Also, for warehousing costs estimation purposes, the average weight of the costs over sales only included the 2012 and 2013 years.

The marketing expenses were also estimated differently. The company has been increasing its marketing investment and this is evident from the weight of this expense in the sales over the years, which increased from 3,9% in 2012, to 5,4% in 2013 and 5,9% in 2014. Given that the company has been going through a phase of high growth and worldwide expansion, last year's figure is the one that better translates the company's future activity.

Finally, the operational leasings and auditors & taxation fees, which are costs that don't vary with revenues, were projected according to the company's annual report information.

6.4 Other Operating Revenues

The company has two other major sources of revenue, which are the advertising revenue from the website and Asos magazine, and the delivery receipts.

The delivery receipts vary with the sales, showing a fairly stable evolution in the last three years for each of Asos' markets. Given this, the average of the historical years' weight of these revenues over the sales by market was used, in order to estimate the future delivery receipts in absolute values.

Similarly, the advertising revenue was also estimated using this methodology, given the stability of its weight over the sales in the last two years (1,3% in 2013 and 1,1% in 2014).

6.5 Capex and PP&E

The capex projected for 2015 and 2016 was defined accordingly to company information, which released its expectations about both warehouse facilities and website technology additions for the next two years. For the following years, an average of the capex over the total revenue of the company from 2012 to 2016 was calculated (including two years of expected values). This average assumed the value of approximately 5%, which was used to estimate the capex for the period between 2017 and 2024.

The capex is also linked to the calculation of the Depreciation & Amortization Expenses. This item results of both the depreciation of the already existing PP&E and of the new acquisitions. Every year, its calculation is based on the depreciation of the previous year plus the depreciation of the capex of that year. The depreciation used for capex was based on the rate of the previous year for each PP&E category.

Finally, the net fixed assets can be directly derived from the previous calculations (please refer to Appendix F for the detailed calculations).

6.6 Net Working Capital (NWC)

NWC (along with PP&E) is part of the company's operating capital and is calculated as current assets minus current liabilities. The current assets of Asos are essentially composed by inventories, client receivables and prepayments. On the other hand, Asos' current liabilities essentially correspond to supplier's payables, state payables and accruals.

It was used the same rationale for almost all of the company's current assets, which is based in the calculation of the days of revenue. This method calculates the days of activity each account balance corresponds, assuming that a day of activity is obtained dividing the sales of the whole year by 365 days.

For the supplier's payables, which are included in current liabilities, the method used was different as it is directly tied to the costs instead of the sales. Therefore, the rationale was based on days of COGS and General & Administrative Expenses.

An average of the last three years was taken in order to estimate future values, except for the suppliers payables and accruals, in which cases it were only used the last two years because there was a material reclassification between these accounts in 2012. The inventories'

estimation didn't follow the usual approach as well, given the fact that the company is going through important changes in its inventory management, therefore only the last year figure was used.

In the end, the current ratio projected for Asos is set around the 1,03, which is below the traditional ratio maintained by the average company. However, according to Damodaran, this translates a healthy working capital management, although increasing the company's liquidity risk (Damodaran 2002). The NWC investment needed in each year is detailed in Appendix G.

6.7 Interest Income and Expenses

In the last two years, the company recorded financial income relative to interest on cash and cash equivalent of 0,5%, on average. In Asos' valuation model, cash is obtained as an output of the company's statement of flows and the average level of this account over the year will serve as a basis for the calculation of future financial income, using the historical average implicit rate.

On the other hand, Asos has been incurring in interest expenses over its bank overdrafts, which in absolute values represent approximately 0,01% of the total turnover. This item is not going to be projected because of the difficulty of predicting the average value of bank overdrafts in future years and its overall immateriality.

6.8 Taxes

In order to calculate the taxes, it is accurate to use the expected effective tax rate of 22%, which can be found in the company's annual report.

6.9 Final Valuation Model Assumptions

In order to close the computation of the company's pro forma BS and IS, more assumptions needed to be taken.

Firstly, the non-recurrent income and costs, such as foreign exchange revenues/costs or losses on PP&E were not projected in the valuation model because of its uncertain nature.

Secondly, as it is not Asos' policy, there is no dividend pay-out included in the estimations, despite the accumulation of a considerable amount of cash.

Finally, both shareholders' equity and cash & cash equivalent result from all of the other inputs of the model. The equity is computed by simply adding the net income of each year (because there is no dividend pay-out or expected changes on equity) and cash is the output of the Statement of Flows, after subtracting all of the operating outflows, capital investments and accounting for the capital movements.

7 Valuation

7.1 DCF

The use of the DCF method allows to evaluate the intrinsic value of a company based on the expected cash flows (CF) from its business. The FCFE was the method chosen to value Asos and for more detailed explanation about the methodology and its advantages and drawbacks, please refer to the Literature Review Section.

7.1.1 Terminal Value

The terminal value gives an estimate of the value of a company after the explicit forecast period, in this case, after 2024. It gives the necessary closure to the valuation and usually it is the component with biggest weight in the valuation. This value can be calculated in different ways, of which it will be used the going concern approach, given by Equation 8.

The CF of the year immediately after the explicit period (Cash Flow_{T+1}) is computed by multiplying the 2024 cash flow by the stable growth rate (g_{stable}). This rate is considered to be the company's perpetual growth and shouldn't overcome the expected growth of the economy. The g_{stable} for Asos was calculated by subtracting from the expected nominal world GDP growth for the year of 2024 the real GDP growth (CBO 2014), yielding the value of 2,0%. The choice of the g_{stable} follows a conservative perspective, assuming that the company will grow in the infinity at the inflation rate, and is going to be subjected to a sensitivity analysis.

After obtaining the 2024 cash flow, the terminal value is then obtained by discounting the cash flow at the WACC minus the stable growth rate.

7.1.2 The FCFE Evolution

The FCFE evolution can be seen in Chart 12 and the detailed computation of these cash flows, based on the assumptions exposed in the previous chapter, in Appendix K.

From the analysis of the chart, it can be perceived that, between 2013 and 2014, the FCFE dropped significantly, mostly because the capital expenditures almost duplicated from £33k in 2013 to £65k in 2014.

A considerable divestment in NWC in 2014 is also evident, mainly due to the decreased level of inventory hold by Asos and the increased account of *other payables* (the latter for operations cut-off reasons). From 2015 on, there is a stabilization of the NWC around the current ratio of 1,03, corresponding to 0,6% of the turnover. Given this, it should be noted the considerable investment in NWC in 2015, made in order to reach the desired level for this variable.

The FCFE follows a growing trend, mostly driven by the growth of Asos’ net earnings and the stabilization of the NWC, which doesn’t require significant long-term investment. Likewise, the capex is estimated to follow this growth trend, increasing along with the company’s activity.

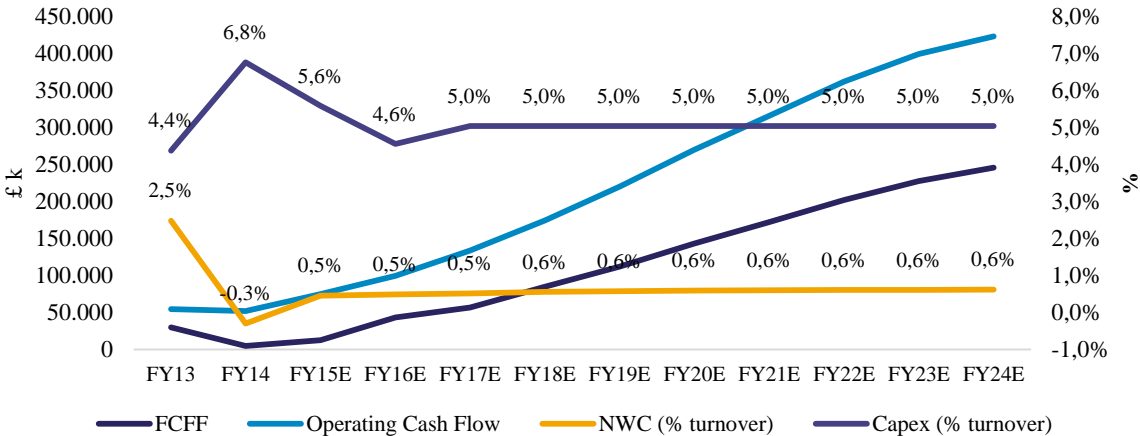


Chart 12 – Free Cash Flow to the Firm (2013-2024)

7.1.3 Sensitivity Analysis

In this section the impact of changing some variables on the final DCF valuation of Asos is going to be analyzed. This study is called the sensitivity analysis and allows to test the sensitivity of the model relatively to its most important sources of uncertainty. The analysis can be done with changes in the expectations of two inputs together or in each of them alone.

The choice of the variables is based on its importance for the valuation model and the weight they will have on the final company value. Another reason to choose the variables is the degree of uncertainty it adds to the model. Consequently, the WACC is going to be one of the variables, as it plays an important role in discounting both the FCFF and the terminal value. The g_{stable} is going to be used as well, because it assumes an important part on the calculation of the terminal value which, in turn, accounts for approximately 70% of the firm's total value.

WACC/g	0,0%	0,5%	1,0%	1,5%	2,0%	2,5%	3,0%	3,5%	4,0%
6,4%	3.550	3.771	4.033	4.348	4.734	5.219	5.845	6.687	7.876
6,9%	3.237	3.418	3.629	3.880	4.182	4.552	5.017	5.618	6.425
7,4%	2.967	3.117	3.291	3.494	3.735	4.024	4.379	4.825	5.401
7,9%	2.733	2.859	3.003	3.170	3.365	3.596	3.873	4.214	4.641
8,4%	2.529	2.635	2.756	2.895	3.054	3.241	3.462	3.729	4.055
8,9%	2.349	2.440	2.542	2.658	2.790	2.944	3.123	3.335	3.591
9,4%	2.189	2.267	2.354	2.452	2.563	2.691	2.838	3.010	3.213
9,9%	2.047	2.114	2.188	2.272	2.366	2.473	2.595	2.736	2.901
10,4%	1.919	1.977	2.042	2.113	2.194	2.284	2.386	2.504	2.639

Table 1 – DCF Sensitivity Analysis (in pences)

As we can see in Table 1, this analysis is done by changing 0,5 percentage points in the two variables, both greatly impacting the final value per share of Asos. A decrease in the WACC yields higher valuations and vice versa, indicating an inverse relation between the two variables. On the other hand, a change in the g_{stable} impacts on the same direction the final valuation.

It can be concluded that changes in the WACC have greater impact in the valuation than changes in the g_{stable} , as we get more extreme values. However, changes in both variables predictions will significantly affect the outcome of the DCF valuation.

7.1.4 DCF Conclusion

As it can be seen in Chart 13, Asos' value of operations, using the DCF method, consists of two major components. The first results from discounting the FCFF of the explicit period by the WACC and the second is the terminal value. Adding these two components results in £2.481.859k, of which 68,1% is represented by the terminal value. This confirms what was referred before, that this terminal value assumes an important part of the DCF valuation.

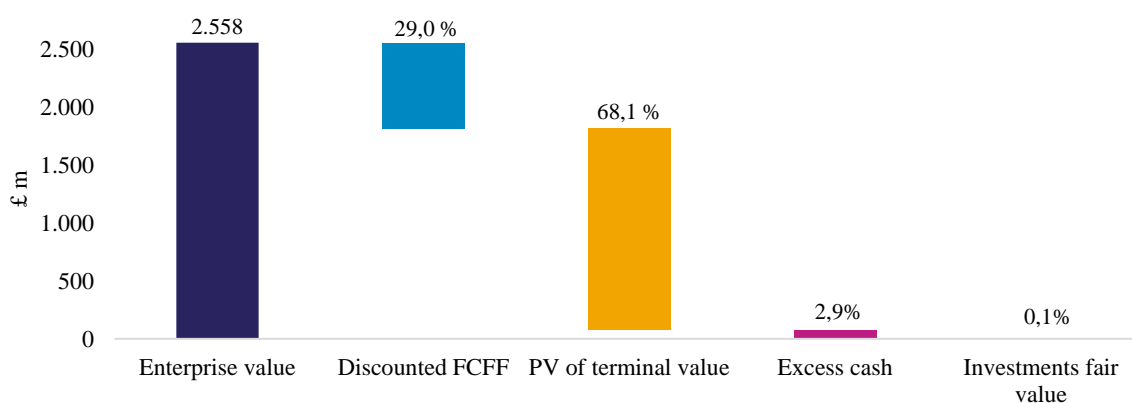


Chart 13 – Enterprise Value Breakdown (DCF)

To get to Asos' EV, non-operating assets need to be added such as the excess cash and financial investments and to get from enterprise to equity value, non-equity claims have to be subtracted. These non-equity claims include debt value, that doesn't apply to Asos, non-controlling interests and also deferred tax liability, which according to Damodaran (2002), should be treated as an obligation.

Finally, to get to the value per share, granted options need to be considered. Therefore, the fully diluted number of shares will be used, practice that considers all the shares outstanding if all options were to be exercised today. In the end, this method yields a value of 3.054p per share, which is higher than the market value of the company at the end of August (Asos' accounts closing period). However, with the DCF we are trying to reach Asos' intrinsic value, which can differ from market values simply because of the uncertainty on the future concretization of Asos' worldwide expansion and effective penetration of new geographies. There are other sources of uncertainty exposed in the previous section, which can yield different valuations if the variables deviate from the expectations (for further details see section 7.1.3).

All of the considerations that have been taken to get to the value per share are exposed in more detail in the Appendix K.

7.2 EVA

The Economic Value Added (EVA) is a model based on the classic financial theory that allows to judge on the capability of a company to create wealth. It is going to be applied in Asos’ valuation in order to bring another perspective to this thesis, based on the economic profit. The choice of this methodology and its fundamentals are described in greater detail in the Literature Review Section.

7.2.1 Terminal Value

Similarly to what was done in the DCF, a terminal value has to be computed in order to close the valuation after the explicit period. Once again, this value will assume that the company lives indefinitely and is going to be calculated through a going concern approach. The necessary perpetual growth rate will be maintained in the 2% level (further details in section 7.1.1) and the assumptions behind Asos’ WACC are kept unchanged as well. This yields a terminal value that represents 60,4% of the total EV, which, even though not having as much weight on the valuation as in the DCF method, it is still an important component.

7.2.2 The Economic Profit Evolution

In Chart 14, it can be seen the economic profit (EVA) and the cost of capital in absolute values, forecasted for the explicit period, under the EVA valuation methodology. Both metrics increase yearly at decreasing rates, which translates the company high growth and continuous reinvestment, although setting the path towards the stabilization of its activity.

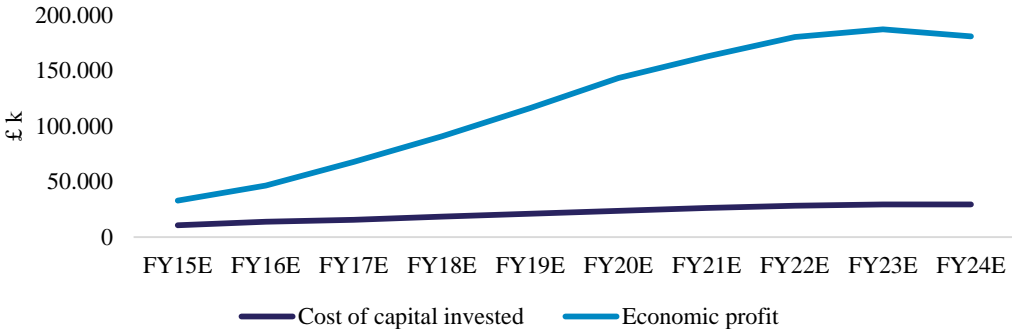


Chart 14 – Economic Profit and the Cost of Capital (2015-2024)

It can be concluded that the company creates value every year and that this value increases over time. In Appendix L, it can be found all EVA calculations and correspondent considerations in order to reach Asos' final valuation.

7.2.3 Sensitivity Analysis

Similarly to what has been done in the DCF valuation, a sensitivity analysis was conducted in order to evaluate the impact on Asos' value if the WACC and the perpetual growth rate expectations change (for further considerations in the choice of variables for the analysis, see section 7.1.3). Once again, this study was performed by changing 0,5 percentage points in both variables.

WACC/g	0,0%	0,5%	1,0%	1,5%	2,0%	2,5%	3,0%	3,5%	4,0%
6,4%	3.023	3.191	3.391	3.631	3.926	4.296	4.775	5.417	6.325
6,9%	2.752	2.889	3.050	3.239	3.468	3.748	4.099	4.554	5.164
7,4%	2.520	2.633	2.763	2.915	3.095	3.312	3.578	3.912	4.344
7,9%	2.318	2.412	2.519	2.642	2.787	2.958	3.164	3.417	3.734
8,4%	2.141	2.220	2.308	2.410	2.528	2.665	2.828	3.023	3.263
8,9%	1.986	2.052	2.126	2.210	2.307	2.419	2.549	2.704	2.890
9,4%	1.847	1.903	1.966	2.037	2.117	2.209	2.315	2.439	2.586
9,9%	1.724	1.772	1.825	1.884	1.952	2.028	2.115	2.216	2.334
10,4%	1.613	1.654	1.699	1.750	1.807	1.871	1.943	2.026	2.122

Table 2 – EVA Sensitivity Analysis (in pences)

By observing Table 2, we can conclude that, as the WACC increases, the company's valuation gets lower and that, on the contrary, increases in the g_{stable} lead to higher valuations, and vice versa. In the end, both variations affect the final price, although the WACC is responsible for greater impacts.

Additionally, comparing this same analysis in the DCF and in the EVA methodologies it is important to note that DCF is more exposed to the uncertainty of its inputs, more precisely to the uncertainty of the WACC and the g_{stable} , showing bigger variations in the final prices.

7.2.4 EVA Conclusion

Following EVA methodology, we get to an EV of £2.117.536k, of which 5,9% corresponds to the value of assets in place, 33,6% the present value of EVA in the explicit period and 60,4% the discounted terminal value (see Chart 15). After subtracting the minority interests and the deferred tax liability, and accounting for the fully diluted number of shares,

as it was done in the DCF, we get to a price per share of 2.528p (further explanations on the methodology followed please refer to section 7.1.4).

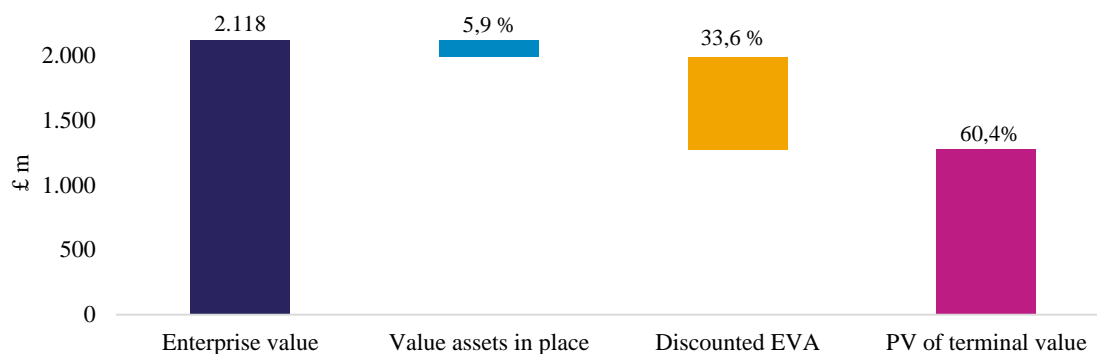


Chart 15 – Enterprise Value Breakdown (EVA)

The valuation obtained through the EVA technique yields a lower value than the market capitalization of the company at the end of August (Asos' year-end period), and lower than the DCF valuation.

Being a high-growth firm, a bulk of Asos' value is expected to come from future growth. However, as referred in the introduction of this chapter, EVA is a methodology biased in favor of the assets in place and less focused on future growth. On the other hand, the DCF method is based on future projections of FCF and this may be a plausible explanation for the lower valuation obtained through EVA methodology. The market values already incorporate future expectations as well. Furthermore, these final values need to be analyzed along with a sensitivity analysis, in order to be aware of the magnitude of eventual changes in some sources of uncertainty of the model.

In Appendix L, all of the calculations carried out to construct EVA valuation can be seen in more detail.

7.3 Multiples

7.3.1 Trading Multiples

As it was referred in the literature review section, relative valuation uses the market as benchmark to estimate the value of a certain asset and, according to Schreiner (2007), this is the analysts' most used valuation methodology (67% of the times).

In this thesis we are going to see this analysis in a cross-sectional basis, because doing it across time is more applicable to mature companies, where the fundamentals don't fluctuate considerably year-on-year. Effectively, the companies in the online retail industry are still in a high-pace growing stage, as it can be seen by Asos' peer group performance.

The trading multiples method uses the market valuation of the companies considered in the same peer group. In section 4.4, the process of peer group selection is explained in detail and concludes that, after comparing operating and financial performances of Asos' competitors, the final peer group is reduced to three companies: Yoox, Boohoo and Zulily.

Multiples were computed using 2014 third quarter reported financials, numbers that were annualized to year-end results based on previous year weights, in order to account for the typical seasonality of this industry. Both Baker & Ruback (1999) and Herrmann & Richter (2003) studies support that using the median or the harmonic mean to estimate the synthetic peer group multiples yields more accurate valuations than using any other measure. Therefore, the valuation was conducted using the median value of all the multiples of the companies included in the peer group.

The multiples used to perform this valuation were the EV/EBITDA, considered by Koller et al. (2010) the best multiple to value a company, the PER - a widely used multiple -, the EV/EBIT and EV/EBT, which produce worse results than EV/EBITDA, the EV/Sales - a multiple widely used in the retail industry - and the EV/active customers - an industry multiple considered to be a good metric for valuing online businesses.

Other equity multiples, besides PER, were used, such as the Price/Sales, the Price/EBT and the P/B. A more in-depth discussion about all the types of multiples used and its pros and cons is reflected in section 2.1.2.

The final valuation that resulted from the peer group analysis can be seen in the table below (Table 3). The complete analysis is presented in Appendix B.

Table 3 – Asos' Peer Group Valuation

Multiples	Median	2014 Value (£k)	Price Per Share (p)
EV/EBITDA	23,3x	1.639.651	2.054,5
EV/EBIT	40,3x	2.216.393	2.745,8
EV/EBT	39,8x	1.866.274	2.326,2
EV/Sales	2,4x	2.278.143	2.819,9

EV/Active Customers	674,3x	5.966.219	7.240,7
P/S	2,6x	2.408.334	2.975,9
PER	67,8x	2.406.110	2.973,3
P/B	8,4x	1.538.219	1.932,9
P/EBT	39,9x	1.797.102	2.243,3
* Number of Shares: 83.425.440			

As it is possible to observe, the valuation using different multiples doesn't yield the same results and the price per share varies between the 1.932,9-7.240,7p range. These results confirm the conclusion taken by Pablo Fernández in the article "Valuation using multiples" (2002), which is that the biggest problem on multiple valuation is the fact that it gives a broad dispersion of values. Furthermore, Liu et al (2001), based on an extensive study, suggests that «contrary to general perception, different industries are not associated with different "best multiples"», therefore the problem that arises is to find the best multiple to translate the value of a specific company.

As discussed before, EV/EBITDA is one of the best performing multiples and usually produces better results than EV/EBIT and EV/EBT because is less affected by accounting measures. Effectively, according to Liu et al (2001), earnings that exclude extraordinary and one-time items perform better because they serve as a better proxy for permanent or core earnings. Therefore, we are going to disregard these last two multiples. The PER multiple, although being a widely used measure, besides being accounting-affected it is also affected by the tax rate used. Hence, and because Asos' peer group is composed by an international set of companies, this may not be the best multiple to perform the valuation as well.

Also, according to Liu et al (2001), "despite the importance of top-line revenues, its value relevance is limited until it is matched with expenses". Likewise, using the book value of equity, although performing better than sales, gives worse results than earnings. Therefore the EV/Sales, P/S and P/B are not going to be further considered.

Regarding the EV/Active customers this multiple gives the highest Asos' valuation of 7.240,7p. This happens because it doesn't take into account the financial and operational performance of the company, but only last year's active buyers, which can introduce a significant bias in the valuation.

Considering that the EV/EBITDA is the most correct multiple to analyze Asos, the final value of the company through Relative Valuation is 2.054,5p. It can be concluded that the company

is undervalued considering its market price at the time Asos is being valued (market price of 2.833,0p as of 29.08.2014).

7.3.2 Transaction Multiples

The Transaction Multiples is another relative valuation technique that, instead of using current market prices as the previous method, uses recent corporate transactions exit valuation. As was already referred in the literature review, this method involves higher magnitude transactions, as the Trading Multiples only capture small proportion transactions of a stock.

In order to conduct this valuation, information on recent transactions in the online fashion retail industry was gathered from the Mergermarket database. Similarly to the Trading Multiples technique, the following step was to compare the performance of the companies given by the Mergermarket in order to have a truly comparable peer group (see in Appendix C the final peer group). Because the companies in this analysis are not publicly traded, there was some difficulty in order to find complete information on its financials, therefore, in some cases, the data from the Mergermarket was complemented with information from the Orbis database.

The multiples used to perform this valuation were the EV/EBITDA, the EV/EBIT, the EV/EBT, the EV/Earnings and finally the EV/Sales. The Equity Value type of multiples couldn't be performed because of the limited available information in the databases in use.

The valuation was conducted using the median value of all the multiples of the companies included in the peer group.

The complete analysis can be found in the Appendixes C and D and the final valuation of Asos, through Transaction Multiples technique, can be seen in Table 4.

Table 4 – Transaction Multiples Valuation

Multiples	Median	2014 Value (£k)	Price Per Share (p)
EV/EBITDA	13,8x	970.728	1.252,7
EV/EBIT	24,1x	1.323.440	1.675,5
EV/EBT	29,0x	1.361.360	1.720,9
EV/Earnings	27,0x	988.815	1.274,4
EV/Sales	1,6x	1.517.465	1.908,1
* Current Number of Shares: 83.430.000			

From this analysis it can be concluded that generally industrials pay more than financial investors. In Appendix C and D it can be seen that, when the acquirer is a private equity, the multiples are inferior than when it is a company in the industry.

Also, contrary to what was expected, the valuation range obtained from this technique is considerably lower than the range that was obtained in valuation performed using Trading Multiples. Considering that the transactions included in this peer group cover, in most of the cases, controlling stakes in the companies, it would be expected that this would yield higher company valuations. Instead, Asos' valuations range from 1.252,7 to 1.908,1p, all being far below from its current market price.

Following the same reasoning of the previous section that the EV/EBITDA is the most correct multiple to value Asos, the final value of the company through Transaction Multiples is 1.252,7p. In conclusion, the company is considered to be undervalued regarding its current market price.

8 Value at Risk

The value at risk (VaR) is a widely accepted statistical tool, among analysts and researchers, for assessing the risk. Moreover, this technique tries to evaluate how much can be lost in an asset or in a portfolio of assets, allowing the investor to know, with a certain level of confidence, the absolute risk it is exposed to when making a certain investment. It is also a relatively easy measure to compute, getting more complex as we add more assets to the portfolio.

There are three main approaches to VaR, being the first the Variance-Covariance method, the second the Historical Simulation and the third the Monte Carlo Simulation, the latter being the one chosen to present in this thesis.

In order to perform this analysis, daily stock prices from 2001 to 2014 were taken from Asos' website and then converted into returns. From the descriptive analysis of the information collected, it can be concluded that, for the last 13 years, Asos had an average yearly return of 1,70%, with a variation of the returns of approximately 13,2%. It can also be seen that it has a positive skewness (0,30), which means that there is a higher probability of having extremely positive returns. The value of excess kurtosis (12,86), on its turn shows higher probability of extreme returns, therefore being more risky. These results give us an ex-ante expectation that this sample doesn't follow a normal distribution. However, a Jarque-Bera (JB) test was performed and this expectation was confirmed with a 90% confidence level.

Because the normality wasn't confirmed, excel tool *random number generator* was applied in order to generate a new sample with the same mean and standard deviation, but following a normal distribution. This tool was also set to give as an output a sample of 10.000 observations. The histogram with the relative frequency of this new data and the correspondent normal distribution curve is presented below.

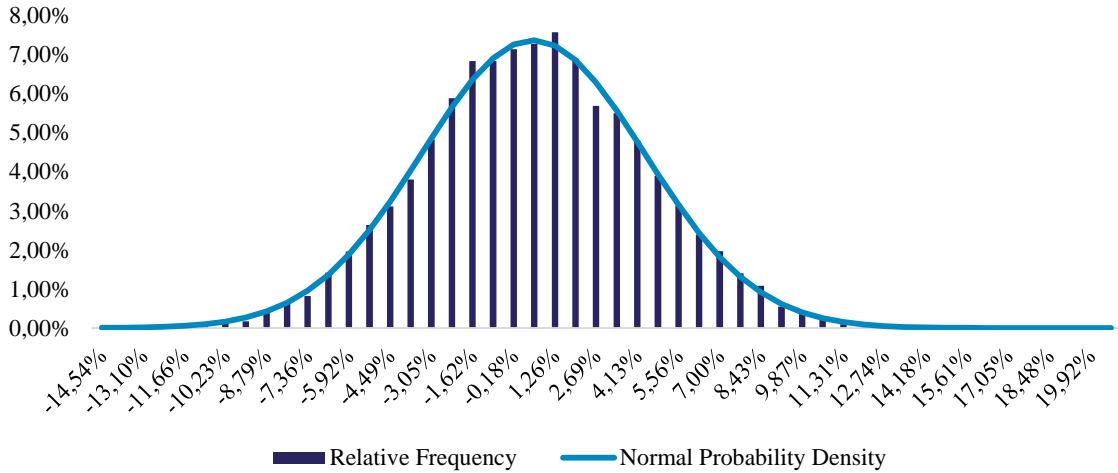


Chart 16 – Histogram

Once again, the JB test was computed, yielding a statistic of 3,10, which was compared with the critical chi-square value (for two degrees of freedom) of 4,61. The conclusion of this test is that the null hypothesis (that the variable follows a normal distribution) cannot be rejected, with a 90% confidence level.

The VaR can finally be computed based on this new set of data for different confidence intervals (see table 5).

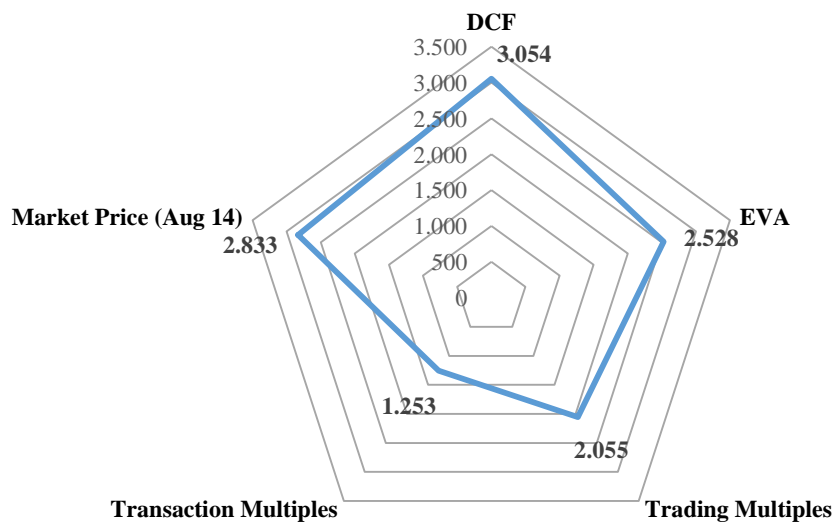
Table 5 – Value at Risk

Confidence Interval	VaR (%)
90%	-4,84%
95%	-6,14%
99%	-8,90%

From this table, it can be concluded that the magnitude of the expected losses increases along with the confidence level used. The daily VaR, for a 99% confidence level, may go until the 8,90% of the value invested in Asos' stock. These are important considerations to have in this study and for posterior recommendations on this company.

9 Valuation Comparison: Models

Chart 17: Valuation Comparison (in pences)



In this study, four valuation models were applied in order to estimate the price of each share of Asos PLC. As it can be seen from the chart above, the output ended up being very distinct depending on the technique used. The DCF yielded the biggest valuation of 3.054p, followed by the EVA, with an output of 2.528p, Trading Multiples (2.055p) and Transaction Multiples (1.253p).

This chapter aims to show further considerations about the models used and conclude which is the one that best fits the company under analysis, in order to reach a final target pricing.

According to Damodaran, the Relative Valuation is the one that is most used among analysts and investors to value a stock. This method basis the whole valuation on the multiples of the company's considered to be in the peer group of the company under analysis. However, there is a great subjectivity on constructing this group and it is difficult to find truly comparable companies. Additionally, this method relies in excess in market moods and assumes that the market is always correct valuing the companies inside the group. However, although being efficient, the market is still noisy and makes mistakes. Finally, this method doesn't allow to evaluate all the fundamentals and assumptions behind these companies' financial figures. Based on these arguments, the multiples analysis doesn't seem to be the most complete and robust model to use in the case of Asos.

As referred by Michael J. Mauboussin, "Multiples are not valuation; they represent shorthand for the valuation process. Like most forms of shorthand, multiples come with blind spots and biases that few investors take the time and care to understand." (Mauboussin, 2006).

EVA was also used in this study. This method is highly centered in the capital invested or the assets already in place and in the present value of the economic value added by those assets, which can lead to the undervaluation of companies whose value is highly tied to expected future business growth, this being the case of Asos.

For these reasons expressed above and because the DCF method is based on the cash flows that the company is expected to deliver to its shareholders in the future, this method is considered in this analysis the best to demonstrate Asos' intrinsic value. Any further recommendation on the stock is going to be based on the outputs of this model.

"If good investors buy businesses, rather than stocks (the Warren Buffet adage), discounted cash flow valuation is the right way to think about what you are getting when you buy an asset." (Damodaran 2002)

Additionally, from the observation of the chart above we can see that the output from the DCF valuation is higher than the current market price of the stock (as of August 2014). Although market prices usually incorporate investor's expectations, there is a substantial uncertainty surrounding the future of Asos, which can be the reason for this deviation. Effectively, most of the company's oldest markets are becoming more mature and making the

business increasingly dependent on the capacity of the company to enter in new geographies and to adapt to the new needs of its business.

10 Valuation Comparison: J.P. Morgan

The valuation performed in this thesis is going to be compared to the most recent J. P. Morgan (JPM) investment report, produced by Georgina Johanan, responsible for the European retail equity markets. The report used was published on the 16th of September of 2014 and the attached price target is valid until the 31st of August of 2015.

As it can be observed from Table 6, the valuation presented by JPM shows close similarities with the one presented in this thesis, including the methodology followed, the final price target and recommendation.

Table 6- Valuation Comparison

	Thesis	J. P. Morgan Report
Method	DCF	DCF
Period	2015-2024	2015-2019
WACC	8,42%	8,00%
g_{stable}	2,00%	2,50%
Target Price (p)	3.054	3.100
Recommendation	Overweight	Overweight

As concluded in the previous chapter, the DCF method was considered the best to evaluate Asos' intrinsic value. The same method was used by JPM. Moreover, two of the most

important assumptions behind these valuations, the WACC and the g_{stable} , which were inclusively submitted to a sensitivity analysis in this study, showed to be similar as well. However, a different time-span for the analysis was considered, being the JPM period much smaller than the one used in this thesis.

Nonetheless, if we analyze in greater depth the JPM valuation model, important differences in the main financial indicators (see Table 7) and FCFF drivers (see Chart 18) can be observed.

Table 7: Main Financial Indicators Comparison

£ k	FY15E	FY16E	FY17E	FY18E	FY19E
Total Revenues JPM	1.134.000	1.404.000	1.694.000	1.994.000	2.288.000
Total Revenues Thesis	1.006.079	1.230.960	1.525.760	1.776.214	2.141.944
Gross Margin JPM	554.000	679.000	820.000	965.000	1.109.000
% Total revenues	49%	48%	48%	48%	48%
Gross Margin Thesis*	510.564	631.784	792.818	929.227	1.129.537
% Total revenues	51%	51%	52%	52%	53%
Total Operating Costs JPM	508.000	622.000	742.000	868.000	983.000
% Total revenues	45%	44%	44%	44%	43%
Total Operating Costs Thesis	447.422	547.470	678.919	782.230	946.596
% Total revenues	44%	44%	44%	44%	44%
Depreciation & Amortization JPM	24.000	28.000	34.000	40.000	46.000
Depreciation & Amortization Thesis	24.414	33.637	44.426	58.877	76.312
Margin EBIT JPM	4,1%	4,1%	4,6%	4,9%	5,5%
Margin EBIT Thesis	6,4%	7,0%	7,6%	8,4%	8,7%

* Gross Margin hereby calculated including other operating revenues in order to be comparable with JPM report

To begin with, the projected revenues are consistently higher in JPM report than in this study, though evolving closely to each other. This can be explained by the fact that in this thesis a more conservative perspective was taken relatively to both JPM estimates and Asos' management team expectations. Moreover, JPM follows the same line of thought (top-down approach) in order to estimate this figure, firstly assessing each region's market value, based in consulting companies' reports and national federal statistics and then estimating the share Asos will have in each of these markets.

It can also be seen in Table 7 that gross margin expectations in absolute values are considered to be higher by JPM, although, in relative values, this thesis estimations exceed the investment banking report.

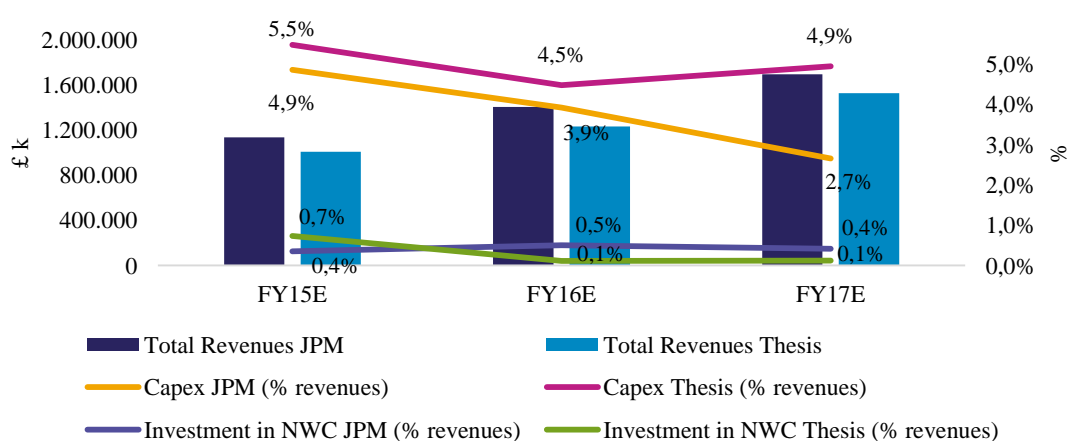
As far as the operating costs are concerned, in percentage of revenues, both studies show relatively stable and similar figures. On the other hand, depreciation expenses increasingly diverge over time, which can be explained by the different levels of capex considered by the two approaches from 2017 onwards.

In the end, higher EBIT margins are obtained in this thesis, mostly driven by lower operating costs expectations.

As far as the FCFF is concerned, this figure is lower in JPM estimates than in the thesis in 2015 and 2016. This can be explained by the difference in the operating margins considered in the two models. Also in 2016, it is projected a bigger investment in NWC in the JPM model. However, this CF figure converges in 2017 to approximately £57m in both models.

Relatively to the capex, 2015 and 2016 values are similar because these were based in company expectations data. However, in 2017 JPM estimates a decrease in capital expenditure in revenue percentage terms, although in the thesis the opposite is considered (see Chart 18). Effectively, this study assumes that capex continues to grow along with the sales, in order to create enough capacity to accompany the growth the company has been going through and is expected to continue having in the long-term. Also this figure considers the investment in better infrastructures and technology, which are indispensable for Asos to provide a high-quality service as a truly global retailer.

Chart 18: Valuation Comparison



In conclusion, regardless of some different assumptions made by the JPM investment team, a close valuation was obtained and the same recommendation was made on Asos.

11 Conclusions

In conclusion, this thesis allowed to apprehend that there are several methodologies to be applied to value the equity of a company, which can be generally divided into direct and relative approaches. The first method tries to estimate the intrinsic value and the second how much a company is worth relative to a peer group benchmark. Consequently, as it could be seen in this study, different methods can yield diverging final outputs.

No method is the most accurate as a standalone technique, although there are better methods to use in each particular company, depending on the industry or the firm's characteristics. However, in the end, the accuracy of any valuation fundamentally depends on the quality of the assumptions behind the technique applied.

It can be concluded, as well, that Asos is more than an e-commerce retailer, but also a fashion hub that every young person wants to be part of. It delivers a big diversity of products and looks, a high-quality of service and an increasing own-brand awareness, capable of truly worldwide reach. The combination of all of these factors has been driving the outstanding high-growth the company has been facing in the last years, which is expected to continue in the future, through gaining market share and by conquering new markets.

All in all justifies the attractiveness and the solid investment Asos can be, being recommended in this thesis as an Overweight stock.

Nonetheless, no investment comes without a risk and Asos is no exception. Thus, this recommendation is based on the capability of Asos to penetrate in new markets and to change its operations in order to respond to its continuing growth. Additionally, this investment

requires to take on some risk, which can be perceived by the analysis performed to Asos' historical share prices that showed that the VaR can go until 8,90% of the amount invested (with a 99% confidence level).

Appendix

A – Trading Multiples - Asos' Original Peer Group

Ticker	Company
ASC:LN	Asos PLC
YOOX:IM	Yoox S.P.A.
BOO:LN	Boohoo. Com PLC
3192:JP	Shirohato Co. Ltd.
ZU:US	Zulily, Inc.
FDL:LN	Findel PLC
BWNG:LN	N Brown Group
UA:US	Under Armour
AEO:US	American Eagle Outfitters INC
ADD:GR	Adler Modemarkte AG
999:HK	I.T. Limited
SGP:LN	Supergroup PLC
HSNI:US	HSN, Inc.
DEB:LN	Debenhams plc

B.1 – Peer Group Comparison

	Asos PLC	Yoox S.P.A.	Boohoo.Com PLC	Zulily, Inc.
Country	UK	IT	UK	US
Turnover* (£ k)	955.295	408.969	143.540	824.737
% Asos' Turnover		42,8%	15,0%	86,3%
CAGR 12-14	33,3%	17,9%	46,1%	96,7%
Market Cap** (£ k)	2.019.840	878.459	505.410	2.143.374
% Asos' Market Cap		43,5%	25,0%	106,1%
Ebitda Margin*	7,4%	10,4%	13,4%	5,3%
Ebit Margin*	5,8%	5,3%	8,7%	2,9%
Net Income Margin*	3,8%	3,2%	6,7%	1,0%
Net Debt*** (£ k)	-74.340	-2.426	-55.618	-176.578
Current Assets*** (£ k)	260.662	194.796	70.649	249.418
Current Liabilities*** (£ k)	185.539	130.125	21.076	120.651
Total Assets*** (£ k)	379.963	250.527	81.577	299.947
Liquidity Ratio	140,5%	149,7%	335,2%	206,7%
Solvency Ratio	37,9%	32,7%	117,5%	36,4%
ROIC	9,6%	5,2%	11,3%	4,3%

When necessary, values converted at end-of-the-year foreign exchange rate

* Expected for 2014

** As of 09/12/2014 (Data collection date)

*** Last reported

B.2 – Trading Multiples – Peer Group Multiples

Multiples	Yoxx S.P.A.	Boohoo.Com PLC	Zulily, Inc.	Unweighted Average	Weighted Average*	Median
EV/EBITDA	20,6x	23,3x	44,8x	29,6x	37,1x	23,3x
EV/EBIT	40,3x	35,8x	82,7x	52,9x	68,3x	40,3x
EV/EBT	39,8x	34,6x	229,7x	101,4x	166,8x	39,8x
EV/Sales	2,1x	3,1x	2,4x	2,6x	2,4x	2,4x
EV/Active Customers	933,0x	195,6x	674,3x	600,9x	684,1x	674,3x
P/S	2,1x	3,5x	2,6x	2,8x	2,6x	2,6x
PER	67,8x	52,6x	258,1x	126,2x	194,1x	67,8x
P/B	8,3x	8,4x	12,8x	9,8x	11,3x	8,4x
P/EBT	39,9x	38,8x	250,3x	109,7x	181,1x	39,9x

* Weighted by the market cap

C – Transaction Multiples – The Peer Group

Date	Acquirer	Target	Country	Target Description
15/09/2014	Neiman Marcus Group LTD LLC	Mytheresa.com GmbH	Germany	Online shop of women and designer fashion
16/06/2014	Bestseller A/S	M and M Direct Limited	UK	Online off-price retailer of apparel and footwear
13/08/2013	Investment AB Kinnevik	Zalando SE	Germany	Online retail of apparel and shoes
03/06/2013	Nordic Capital	Ellos AB; Jotex AB	Sweden	Internet retailer of apparel and home products
28/03/2013	Alpha Private Equity	Cyrillus + Vertbaudet	France	Online clothes retailing
05/02/2013	Charlesbank Capital Partners and Webster Capital	OneStopPlus Group	US	Online plus-size apparel retailer
18/10/2012	Investment AB Kinnevik	Zalando SE	Germany	Online retail of apparel and shoes
07/03/2011	Privalia Venta Directa, S.L	Dress-for-less GmbH	Germany	Online designer fashion outlet
22/11/2010	Tradus Plc	Trendsales ApS	Denmark	Online fashion retailer
04/10/2010	General Atlantic LLC; Index Ventures	Privalia Venta Directa, S.L	Spain	Online fashion and home products retailer

D – Transaction Multiples – Peer Group Comparison

Target	Enterprise Value (€ k)	Stake Sold (€ k)	Deal Value (%)	EV/EBITDA	EV/EBIT	EV/EBT	EV/Earnings	EV/Sales
Mytheresa.com GmbH	150.000	150.000	100%	n.a.	n.a.	n.a.	n.a.	1,6
M and M Direct Limited	175.483	175.483	100%	13,80	17,4	n.a.	18,5	1,2
Zalando SE	2.857.143	100.000	3,5%	n.a.	n.a.	n.a.	n.a.	2,5
Ellos AB; Jotex AB	275.000	275.000	100%	n.a.	n.a.	n.a.	n.a.	1,0
Cyrillus + Vertbaudet	119.000	119.000	100%	17,3	24,1	24,6	35,5	0,8
OneStopPlus Group	401.192	401.192	100%	n.a.	n.a.	n.a.	n.a.	0,2
Zalando SE	2.768.171	287.000	10%	n.a.	n.a.	n.a.	n.a.	5,4
Dress-for-less GmbH	199.443	199.443	100%	13,3	26,2	33,5	116,6	3,1
Trendsales ApS	28.740	20.120	70%	13,3	13,9	14,0	18,5	n.a.
Privalia Venta Directa, S.L	233.330	70.000	30%	65,9	93,7	73,6	n.a.	4,7
			Weighted Average*	21,3x	30,5x	36,0x	43,1x	1,8x
			Unweighted Average	24,7x	35,1x	36,4x	47,3x	2,3x
			Median	13,8x	24,1x	29,0x	27,0x	1,6x

*Weighted by the turnover

E – Revenues' Projection

Country	2012	2013	2014	2013				2017				
				£ k	Total apparel market*	Online apparel market*	Asos' sales	Asos' mkt share	Total apparel market*	Online apparel market*	Asos' sales	Asos' mkt share
UK	1st	1st	1st	UK	38.000.000	5.400.000	276.027	5,1%	45.000.000	8.200.000	419.152	5,1%
US	26th	17th	6th	US	210.000.000	25.440.000	77.678	0,3%	232.000.000	47.900.000	239.500	0,5%
France	21th	8th	6th	France	26.000.000	2.600.000	48.000	1,8%	27.000.000	3.600.000	72.000	2,0%
Germany	17th	7th	8th	Germany	42.000.000	5.400.000	44.000	0,8%	46.000.000	9.400.000	56.400	0,6%
Australia	1st	1st	1st	Australia	10.000.000	1.000.000	76.000	7,6%	10.000.000	1.400.000	106.400	7,6%
Spain	9th	9th	10th	Russia	39.000.000	1.310.000	30.000	2,3%	44.000.000	3.000.000	75.000	2,5%
Italy	9th	8th	8th	China	160.000.000	10.800.000	23.000	0,2%	235.000.000	45.700.000	182.800	0,4%
Russia	n.a.	11th	7th	Others	n.a.	n.a.	179.102	n.a.	n.a.	n.a.	216.658	n.a.
China	n.a.	71st	43rd				753.807					

Source: Comscore Rankings, accessed December 18, 2014

£ k	Historic	Based on Market Shares*					Stabilization of Revenue's Growth**						
	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Total Sales	537.887	753.807	955.295	985.358	1.206.417	1.496.310	1.742.563	2.102.337	2.477.665	2.814.654	3.149.243	3.396.576	3.524.735
UK	205.258	276.027	372.241	376.215	400.069	419.152	438.246	454.297	468.421	479.597	487.977	493.182	495.189
US	49.585	77.678	92.311	104.648	153.195	239.500	308.230	412.437	534.576	645.268	761.693	859.097	920.772
EU	117.748	177.708	256.385	246.254	251.527	256.800	259.673	261.251	260.893	258.898	255.142	249.764	242.823
RoW	165.296	222.394	234.358	258.240	401.626	580.858	736.414	974.352	1.213.774	1.430.891	1.644.431	1.794.533	1.865.950
Growth Rates													
UK	34%	35%	1%	6%	5%	5%	5%	4%	3%	2%	2%	1%	0%
US	57%	19%	13%	46%	56%	29%	29%	34%	30%	21%	18%	13%	7%
EU	51%	44%	-4%	2%	2%	1%	1%	1%	0%	-1%	-1%	-2%	-3%
RoW	35%	5%	10%	56%	45%	27%	27%	32%	25%	18%	15%	9%	4%

* Based on A. T. Kearney study (ATKearney Global Retail E-Commerce 2013)

** Based on the average of the last two years (minus 0,01 for the UK and EU and minus 0,1 in the US and in the RoW)

F – Capex and PP&E calculations

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Gross Assets	71.019	98.996	161.246	216.246	271.246	346.634	434.429	540.350	665.181	806.991	965.658	1.136.786	1.314.371
Goodwill	1.060	1.060	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325
Fixtures and Fittings	25.108	30.571	36.622	56.622	71.622	99.036	130.961	169.478	214.871	266.438	324.135	386.364	450.940
Computer equipment	14.856	12.356	11.886	11.886	11.886	11.886	11.886	11.886	11.886	11.886	11.886	11.886	11.886
Intangible	28.544	39.063	61.228	96.228	136.228	184.202	240.072	307.476	386.914	477.156	578.126	687.026	800.035
Assets under construction	1.451	15.946	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185
Accumulated Depreciation	20.485	29.279	41.945	66.359	99.996	144.422	203.299	279.611	376.471	496.672	642.991	817.477	1.021.194
Goodwill	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixtures and Fittings	4.676	8.184	10.869	17.359	25.665	37.290	52.781	72.936	98.587	130.482	169.363	215.779	270.015
Computer equipment	8.711	7.993	8.474	10.266	11.886	11.886	11.886	11.886	11.886	11.886	11.886	11.886	11.886
Intangible	7.098	13.102	22.602	38.734	62.446	95.246	138.633	194.790	265.998	354.304	461.741	589.812	739.293
Assets under construction	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Depreciation	10.224	13.484	15.361	24.414	33.637	44.426	58.877	76.312	96.859	120.201	146.318	174.486	203.717
Goodwill	n.a.	0	0	0	0	0	0	0	0	0	0	0	0
Fixtures and Fittings	n.a.	5.117	4.068	6.490	8.306	11.625	15.491	20.155	25.651	31.895	38.881	46.416	54.235
Computer equipment	n.a.	1.893	1.792	1.792	1.620	0	0	0	0	0	0	0	0
Intangible	n.a.	6.479	9.501	16.132	23.711	32.801	43.386	56.157	71.208	88.306	107.437	128.070	149.482
Assets under construction	5	-5	0	0	0	0	0	0	0	0	0	0	0
Regularizations	0	4.695	2.695	0	0	0	0	0	0	0	0	0	0
Goodwill	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixtures and Fittings	0	1.609	1.383	0	0	0	0	0	0	0	0	0	0
Computer equipment	0	2.611	1.311	0	0	0	0	0	0	0	0	0	0
Intangible	0	475	1	0	0	0	0	0	0	0	0	0	0
Assets under construction	0	0	0	0	0	0	0	0	0	0	0	0	0

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Net Assets	50.529	69.717	119.301	149.887	171.250	202.212	231.129	260.738	288.710	310.318	322.667	319.309	293.177
Goodwill	1.060	1.060	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325	1.325
Fixtures and Fittings	20.432	22.387	25.753	39.263	45.957	61.746	78.180	96.542	116.284	135.956	154.772	170.584	180.926
Computer equipment	6.145	4.363	3.412	1.620	0	0	0	0	0	0	0	0	0
Intangible	21.446	25.961	38.626	57.494	73.782	88.956	101.439	112.686	120.916	122.852	116.385	97.214	60.742
Assets under construction	1.446	15.946	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185	50.185
CAPEX	21.055	32.672	64.945	55.000	55.000	75.388	87.795	105.921	124.831	141.810	158.667	171.128	177.585
Warehouse				20.000	15.000	27.414	31.925	38.517	45.393	51.567	57.697	62.228	64.576
IT				35.000	40.000	47.974	55.869	67.404	79.438	90.242	100.970	108.900	113.009
<i>% Turnover</i>	<i>4%</i>	<i>4%</i>	<i>7%</i>	<i>6%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>
Capex Depreciation				9.053	9.395	12.409	14.451	17.435	20.547	23.342	26.117	28.168	29.231
Warehouse	<i>12%</i>			2.422	1.816	3.319	3.866	4.664	5.496	6.244	6.986	7.535	7.819
IT	<i>19%</i>			6.631	7.579	9.090	10.586	12.771	15.051	17.098	19.131	20.633	21.412

G – Net Working Capital

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Current Assets	127.865	170.670	184.082	193.239	236.591	293.442	341.735	412.290	485.896	551.983	617.600	666.104	691.237
Inventories	100.263	143.348	161.480	166.562	203.929	252.931	294.557	355.372	418.817	475.780	532.338	574.146	595.810
Inventories (days of sales)	68	69	62	62	62	62	62	62	62	62	62	62	62
Clients and other debtors	2.665	4.653	7.653	6.286	7.696	9.546	11.117	13.412	15.806	17.956	20.090	21.668	22.486
Clients (days of sales)	2	2	3	2	2	2	2	2	2	2	2	2	2
Prepayments	5.482	3.419	8.667	7.817	9.571	11.871	13.824	16.679	19.656	22.330	24.984	26.946	27.963
Prepayments (days of sales)	4	2	3	3	3	3	3	3	3	3	3	3	3
Others	19.455	19.250	6.282	12.574	15.395	19.094	22.237	26.828	31.617	35.918	40.187	43.343	44.979
Others (days of sales)	13	9	2	5	5	5	5	5	5	5	5	5	5
Current Liabilities	100.291	151.952	186.932	188.754	230.734	285.764	332.054	400.232	471.289	535.112	598.459	645.261	669.486
Suppliers	41.696	23.187	27.399	29.054	35.207	43.253	49.632	59.501	69.727	78.933	88.053	94.769	98.223
Suppliers (days of costs)	34	13	12	13	13	13	13	13	13	13	13	13	13
State	7.669	6.325	4.058	8.834	10.816	13.415	15.623	18.848	22.213	25.235	28.234	30.452	31.601
State (days of sales)	5	3	2	3	3	3	3	3	3	3	3	3	3
Accruals	32.127	93.877	79.520	102.368	125.334	155.451	181.034	218.410	257.403	292.412	327.172	352.868	366.182
Accruals (days of sales)	22	45	30	38	38	38	38	38	38	38	38	38	38
Others	18.799	28.563	75.955	48.497	59.378	73.646	85.766	103.473	121.946	138.532	155.000	167.173	173.481
Others (days of sales)	13	14	29	18	18	18	18	18	18	18	18	18	18
Net Working Capital	27.574	18.718	-2.850	4.485	5.857	7.678	9.681	12.058	14.607	16.871	19.140	20.843	21.751
% Turnover	5%	2%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%
Current Ratio	1,27	1,12	0,98	1,02	1,03	1,03	1,03	1,03	1,03	1,03	1,03	1,03	1,03

H – Pro Forma Income Statement

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Turnover	537.887	753.807	955.295	985.358	1.206.417	1.496.310	1.742.563	2.102.337	2.477.665	2.814.654	3.149.243	3.396.576	3.524.735
COGS	269.997	370.816	490.463	495.514	599.176	732.943	846.987	1.012.407	1.184.019	1.337.880	1.490.044	1.601.784	1.658.926
Net Trading Margin	267.890	382.991	464.832	489.843	607.241	763.367	895.576	1.089.930	1.293.646	1.476.774	1.659.199	1.794.793	1.865.809
<i>% of turnover</i>	<i>49,8%</i>	<i>50,8%</i>	<i>48,7%</i>	<i>49,7%</i>	<i>50,3%</i>	<i>51,0%</i>	<i>51,4%</i>	<i>51,8%</i>	<i>52,2%</i>	<i>52,5%</i>	<i>52,7%</i>	<i>52,8%</i>	<i>52,9%</i>
General & administrative expenses	175.802	261.514	347.739	346.337	420.935	520.317	591.101	711.624	836.309	949.199	1.061.285	1.144.141	1.187.073
Personnel	50.070	67.496	66.904	76.671	92.897	114.176	132.252	158.660	186.210	210.946	235.506	253.661	263.068
Other operating revenues	14.967	15.589	20.175	20.721	24.543	29.450	33.651	39.607	45.839	51.417	56.941	61.064	63.248
EBITDA	56.985	69.570	70.364	87.556	117.951	158.324	205.874	259.253	316.966	368.046	419.350	458.055	478.915
<i>% of turnover</i>	<i>10,6%</i>	<i>9,2%</i>	<i>7,4%</i>	<i>8,9%</i>	<i>9,8%</i>	<i>10,6%</i>	<i>11,8%</i>	<i>12,3%</i>	<i>12,8%</i>	<i>13,1%</i>	<i>13,3%</i>	<i>13,5%</i>	<i>13,6%</i>
Depreciation & amortization	10.224	13.484	15.361	24.414	33.637	44.426	58.877	76.312	96.859	120.201	146.318	174.486	203.717
EBIT	46.761	56.086	55.003	63.142	84.314	113.898	146.997	182.941	220.107	247.844	273.031	283.569	275.198
<i>% of turnover</i>	<i>8,7%</i>	<i>7,4%</i>	<i>5,8%</i>	<i>6,4%</i>	<i>7,0%</i>	<i>7,6%</i>	<i>8,4%</i>	<i>8,7%</i>	<i>8,9%</i>	<i>8,8%</i>	<i>8,7%</i>	<i>8,3%</i>	<i>7,8%</i>
Net Interest	1.109	-215	-255	-365	-457	-686	-1.016	-1.480	-2.082	-2.832	-3.727	-4.759	-5.903
Non-operating costs	5.642	2.193	21.443	0	0	0	0	0	0	0	0	0	0
Non-operating income	0	562	13.086	0	0	0	0	0	0	0	0	0	0
EBT	40.010	54.670	46.901	63.507	84.771	114.584	148.013	184.421	222.189	250.676	276.759	288.328	281.101
<i>% of turnover</i>	<i>7,4%</i>	<i>7,3%</i>	<i>4,9%</i>	<i>6,4%</i>	<i>7,0%</i>	<i>7,7%</i>	<i>8,5%</i>	<i>8,8%</i>	<i>9,0%</i>	<i>8,9%</i>	<i>8,8%</i>	<i>8,5%</i>	<i>8,0%</i>
Taxes on Income	10.473	13.744	10.313	13.147	18.650	25.208	32.563	40.573	48.882	55.149	60.887	63.432	61.842
Net Income	29.537	40.926	36.588	50.359	66.121	89.375	115.450	143.848	173.307	195.528	215.872	224.896	219.259
<i>% of turnover</i>	<i>5,5%</i>	<i>5,4%</i>	<i>3,8%</i>	<i>5,1%</i>	<i>5,5%</i>	<i>6,0%</i>	<i>6,6%</i>	<i>6,8%</i>	<i>7,0%</i>	<i>6,9%</i>	<i>6,9%</i>	<i>6,6%</i>	<i>6,2%</i>

I – Pro Forma Balance Sheet

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Non-cash net working capital	27.574	18.718	-2.850	4.485	5.857	7.678	9.681	12.058	14.607	16.871	19.140	20.843	21.751
Fixed assets	50.529	69.717	119.301	149.887	171.250	202.212	231.129	260.738	288.710	310.318	322.667	319.309	293.177
Investments	0	225	2.240	2.240	2.240	2.240	2.240	2.240	2.240	2.240	2.240	2.240	2.240
Total Assets	78.103	88.660	118.691	156.612	179.347	212.129	243.050	275.036	305.558	329.430	344.047	342.392	317.168
Other non-financial liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Financial debt	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Less: Cash & marketable securities</u>	27.884	71.139	74.340	86.779	130.165	186.758	271.287	383.149	525.935	697.590	898.845	1.125.396	1.369.878
Net Debt	-27.884	-71.139	-74.340	-86.779	-130.165	-186.758	-271.287	-383.149	-525.935	-697.590	-898.845	-1.125.396	-1.369.878
Total Liabilities	-27.884	-71.139	-74.340	-86.779	-130.165	-186.758	-271.287	-383.149	-525.935	-697.590	-898.845	-1.125.396	-1.369.878
Shareholder's equity	105.987	159.799	193.031	243.390	309.512	398.887	514.337	658.185	831.492	1.027.020	1.242.892	1.467.788	1.687.046
Capital Employed	78.103	88.660	118.691	156.612	179.347	212.129	243.050	275.036	305.558	329.430	344.047	342.392	317.168

J – Pro Forma Statement of Flows

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Net Income	29.537	40.926	36.588	50.359	66.121	89.375	115.450	143.848	173.307	195.528	215.872	224.896	219.259
Depreciation & non-cash expenses	10.224	13.484	15.361	24.414	33.637	44.426	58.877	76.312	96.859	120.201	146.318	174.486	203.717
Operating Cash-Flow	39.761	54.410	51.949	74.773	99.759	133.802	174.327	220.160	270.167	315.729	362.190	399.382	422.976
Net capital expenditures	60.753	32.672	64.945	55.000	55.000	75.388	87.795	105.921	124.831	141.810	158.667	171.128	177.585
Change in working capital	27.574	-8.856	-21.568	7.335	1.372	1.821	2.003	2.377	2.549	2.264	2.269	1.703	908
Dividends	0	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	225	2.015	0	0	0	0	0	0	0	0	0	0
Net Cash-Flow	-48.566	30.369	6.557	12.439	43.386	56.593	84.529	111.862	142.786	171.655	201.254	226.551	244.482
Shareholders' funds	76.450	12.886	-3.314	0	0	0	0	0	0	0	0	0	0
Loss with subsidiary acquisition	0	0	-42	0	0	0	0	0	0	0	0	0	0
Bank debt	0	0	0	0	0	0	0	0	0	0	0	0	0
Other debt (including leasings)	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital movements	76.450	12.886	-3.356	0	0	0	0	0	0	0	0	0	0
Cash-Flow after Capital Movements	27.884	43.255	3.201	12.439	43.386	56.593	84.529	111.862	142.786	171.655	201.254	226.551	244.482
Cash & negotiable securities (n-1)	0	27.884	71.139	74.340	86.779	130.165	186.758	271.287	383.149	525.935	697.590	898.845	1.125.396
Cash & negotiable securities	27.884	71.139	74.340	86.779	130.165	186.758	271.287	383.149	525.935	697.590	898.845	1.125.396	1.369.878

K – DCF Valuation

£ k	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Net earnings	40.926	36.588	50.359	66.121	89.375	115.450	143.848	173.307	195.528	215.872	224.896	219.259
Depreciation and non-cash expenses	13.484	15.361	24.414	33.637	44.426	58.877	76.312	96.859	120.201	146.318	174.486	203.717
Operating Cash Flow	54.410	51.949	74.773	99.759	133.802	174.327	220.160	270.167	315.729	362.190	399.382	422.976
After-tax interest expenses (1)	-356	-1.782	75	101	151	223	326	458	623	820	1.047	1.299
Change in Net Working Capital	-8.856	-21.568	7.335	1.372	1.821	2.003	2.377	2.549	2.264	2.269	1.703	908
Unlevered Cash Flow	62.910	71.735	67.514	98.487	132.132	172.548	218.108	268.075	314.088	360.741	398.727	423.366
Capex (net of disposals)	32.672	64.945	55.000	55.000	75.388	87.795	105.921	124.831	141.810	158.667	171.128	177.585
Investments	225	2.015	0	0	0	0	0	0	0	0	0	0
Free Cash Flow to the Firm	30.013	4.775	12.514	43.487	56.744	84.753	112.187	143.244	172.279	202.074	227.598	245.781
			FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Free Cash Flow to the Firm			12.514	43.487	56.744	84.753	112.187	143.244	172.279	202.074	227.598	245.781
Terminal value												3.906.693
DCF value of operations			2.481.859									
Excess cash			74.340									
Investments fair value			2.240									
Enterprise value			2.558.439									
Debt fair value			0									
Deferred tax liability			-1.393									
Non-controlling interests fair value			-406									
Equity Value			2.556.640									
N° Shares			83.425.440									
N° Shares fully diluted			279.864									
Price per share (pence)			3.054									

L – EVA Valuation

£ k	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
After-tax operating income (NOPAT)	43.556	60.282	83.358	109.175	137.211	167.018	188.653	208.299	216.518	209.989
Cost of capital	8,42%									
Capital Invested t-1	125.763	164.827	186.376	219.159	250.079	282.066	311.539	335.411	350.029	348.373
EVA - Economic Value Added	32.970	46.409	67.670	90.728	116.162	143.276	162.430	180.067	187.056	180.666
Discounted EVA	711.921									
Terminal Value of EVA										2.871.691
Value Assets in Place in 2014	125.763									
Enterprise Value	2.117.536									
Debt fair value	0									
Deferred tax liability	-1.393									
Non-controlling interests fair value	-406									
Equity Value	2.115.737									
Nº Shares	83.425.440									
Nº shares fully diluted	279.864									
Price per share (pence)	2.528									

M – COGS and Gross Margins by Region

£ k	FY12	FY13	FY14	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
UK													
Sales	205.258	276.027	372.241	376.215	400.069	419.152	438.246	454.297	468.421	479.597	487.977	493.182	495.189
COGS	113.042	148.685	207.853	206.639	219.741	230.223	240.710	249.527	257.284	263.423	268.026	270.884	271.987
Gross Margin	92.216	127.342	164.388	169.576	180.328	188.929	197.536	204.771	211.137	216.174	219.952	222.298	223.202
<i>% of turnover</i>	45%	46%	44%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%
US													
Sales	49.585	77.678	92.311	104.648	153.195	239.500	308.230	412.437	534.576	645.268	761.693	859.097	920.772
COGS	19.960	32.687	40.137	43.888	64.247	100.442	129.266	172.968	224.191	270.613	319.440	360.289	386.155
Gross Margin	29.625	44.991	52.174	60.761	88.948	139.058	178.964	239.468	310.385	374.655	442.253	498.808	534.617
<i>% of turnover</i>	60%	58%	57%	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%
EU													
Sales	117.748	177.708	256.385	246.254	251.527	256.800	259.673	261.251	260.893	258.898	255.142	249.764	242.823
COGS	59.926	88.865	126.460	123.311	125.951	128.592	130.030	130.820	130.641	129.642	127.761	125.069	121.593
Gross Margin	57.822	88.843	129.925	122.943	125.576	128.208	129.643	130.430	130.252	129.256	127.381	124.696	121.230
<i>% of turnover</i>	49%	50%	51%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
RoW													
Sales	165.296	222.394	234.358	258.240	401.626	580.858	736.414	974.352	1,213.774	1,430.891	1,644.431	1,794.533	1,865.950
COGS	77.069	100.579	116.013	121.677	189.237	273.687	346.981	459.092	571.902	674.202	774.817	845.541	879.192
Gross Margin	88.227	121.815	118.345	136.564	212.389	307.171	389.433	515.261	641.873	756.689	869.614	948.991	986.759
<i>% of turnover</i>	53%	55%	50%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%

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