UNIVERSIDADE CATOLICA PORTUGUESA

Católica Lisbon School of Business and Economics

# Columbia Sportswear Company
# Equity Valuation

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Equity Research Note

31 December 2014

# Columbia Sportswear Co. (COLM)

**BUY**

## Positive Trend is to continue

- **Columbia Sportswear Company**

Columbia is a global company operating in the apparel and footwear industry. The firm targets 5 primary outdoor brands, being the most important the one that gives the name to the group. As it was founded in the U.S., this is the most important region for the group's revenues. Nonetheless, the brands are available through several distribution channels and in nearly 100 countries.

**Investment Case**

The 2014 results were remarkable, as revenue increased by 24,66% in comparison with the previous year 2013. The China Joint venture that has started operating in January of 2014 was the main responsible for that boom. Besides, the PrAna acquisition, and the growing in Direct to consumer sales, which enables greater margins were also relevant factors for the 2014 bright results.

The increase in the direct to consumer segment is expected to maintain over the next years. This is especially true for sales through E-Commerce that have been gaining a more relevant size and that trend is to continue.

The ERP (Enterprise Resource Planning) system, which has started in Canada during 2012 and extended to the US market this last year, was responsible for the growth in Gross Margins by diminishing the operating costs. In 2015 and 2016, LAAP and EMEA will be the next segments to be covered by the software. Given this, I expect the expenses (as percentage of sales) to continue declining until 2019.

The integration of PrAna, following the acquisition, within the company will enable it to take advantage of the already accomplished Columbia's distribution channel. I believe that this will positively affect that brand's sales.

The already seen improvement in the European macro environment, where population have a great buying power and is willing to acquire outdoor products is forecasted to increase revenue in the next few years.

**Key Data**

| | |
|---|---|
| Market Cap ($ mn) | 3.110,14 |
| Shares Outstanding (mn) | 69,83 |
| Current Price ($) | 44,54 |
| **Price Target ($) (DCF)** | **62,21** |
| Implicit Price Variation | 39,67% |


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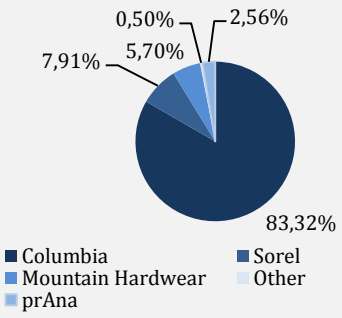
**Last year COLM's price performance**


**Columbia Sportswear Brand Sales 2014**

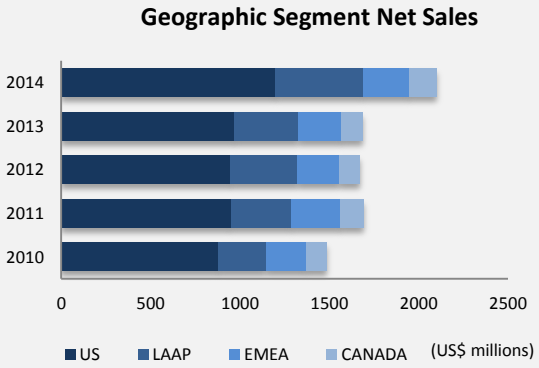


The forecasted Free cash flows and the target share price obtained by discounting those, as long as the risks to my investment case are discriminated in the following page. Next, a relative valuation, through the EV/EBITDA multiple is also presented but one should notice that the DCF is the main model.

- **Target Price and Risks**

To value Columbia Sportswear Co. I used the FCFF method. The key inputs to the valuation model were a WACC of 7,87% and a perpetuity growth of 2%.

From the DCF model, an implicit price of $ 61,21 was reached. The target price and the variation in comparison with the current stock value, as of 31 December 2014, made me released a Strong Buy Investment Recommendation




| | |
|---|---|
| *WACC* | *7,87%* |
| PV FCFF | 1606,1 |
| TV (g=2%) | 5195,7 |
| PV (TV) | 2258,1 |
| **EV** | **3864,2** |
| - Net Debt | -421,6 |
| - Minority Interest Subsidiaries | 11,6 |
| **Equity** | **4274,2** |
| Shares Outstanding | 69,8 |
| **Share Price** | **61,21** |

<u>Upside Risks:</u>

- Expand the Direct to consumer to other geographies (since it is much more present in U.S. and Canada)
- Mitigate the dependence on sales seasonality by continuously increasing the proportion of other product's varieties on the company's sales.
- Penetrate Tier 3 and Tier 4 cities in China, which are until date dominated by local players.
- Possible trend of outdoor clothes becoming fashion and people start using it on a daily basis.

<u>Downside Risks:</u>

- Efficiencies' programs with lower than expected results.
- European macroeconomic environment to continue weakening.
- Latin American macroeconomic and politic environment to continue deteriorating
- Warm winters that would negatively impact the company's sales.
- Later Wholesalers' Orders affecting Columbia's demanding planning and subsequently sales and gross profit.

**Free Cash Flow Statement**

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Net Sales | 2289,6 | 2431,5 | 2556,1 | 2695,0 | 2826,9 | 2940,0 | 3042,9 | 3134,2 | 3212,6 | 3276,8 | 3342,4 |
| Cost of sales | 1236,4 | 1300,9 | 1354,7 | 1414,9 | 1470,0 | 1528,8 | 1582,3 | 1629,8 | 1670,5 | 1703,9 | 1738,0 |
| **Gross Profit** | **1053,2** | **1130,6** | **1201,4** | **1280,1** | **1356,9** | **1411,2** | **1460,6** | **1504,4** | **1542,0** | **1572,9** | **1604,3** |
| D&A | 57,7 | 61,3 | 64,5 | 68,0 | 71,3 | 74,1 | 76,7 | 79,0 | 81,0 | 82,6 | 84,3 |
| Impairment PPE | 3,5 | 3,8 | 4,0 | 4,2 | 4,4 | 4,7 | 4,9 | 5,0 | 5,2 | 5,3 | 5,4 |
| Net S,G&A | 755,5 | 802,3 | 843,4 | 889,3 | 932,8 | 970,1 | 1004,1 | 1034,2 | 1060,1 | 1081,3 | 1102,9 |
| Net Licensing Income | (7,58) | (8,05) | (8,46) | (8,92) | (9,36) | (9,74) | (10,08) | (10,38) | (10,64) | (10,85) | (11,07) |
| **Operating Income** | **247,6** | **275,1** | **301,9** | **331,8** | **362,2** | **376,7** | **389,9** | **401,6** | **411,6** | **419,8** | **428,2** |
| Tax | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* |
| **NOPLAT** | **176,6** | **196,2** | **215,4** | **236,7** | **258,4** | **268,7** | **278,1** | **286,5** | **293,6** | **299,5** | **305,5** |
| + D&A | 53,9 | 61,3 | 64,5 | 68,0 | 71,3 | 74,1 | 76,7 | 79,0 | 81,0 | 82,6 | 84,3 |
| + Impairments | 3,5 | 3,8 | 4,0 | 4,2 | 4,4 | 4,7 | 4,9 | 5,0 | 5,2 | 5,3 | 5,4 |
| - CAPEX | 75,0 | 75,4 | 76,7 | 80,8 | 84,8 | 85,3 | 85,2 | 84,6 | 83,5 | 82,6 | 84,3 |
| - var WC | 9,8 | -0,8 | 21,0 | 23,5 | 22,3 | 18,9 | 17,2 | 15,3 | 13,1 | 10,8 | 11,0 |
| - var Deferred Taxes | 2,7 | 2,0 | 1,8 | 2,0 | 1,9 | 1,6 | 1,5 | 1,3 | 1,1 | 0,9 | 0,9 |
| **FCFF** | **146,4** | **184,7** | **184,4** | **202,6** | **225,1** | **241,7** | **255,8** | **269,3** | **282,1** | **293,1** | **299,0** |
| Discount FCFF | 137,0 | 161,6 | 150,9 | 155,1 | 161,2 | 161,9 | 160,2 | 157,8 | 154,6 | 150,3 | 143,4 |

## Multiples Valuation:

For the multiples valuation I consider the EV/EBITDA ratio, both for 2014 and 2015. The comparable companies' ratios and the Target share prices using the multiples are presented next.

| Peer Group | EV/EBITDA | |
|---|---|---|
| | 2014 | 2015F |
| VF CORP | 15,83 | 13,01 |
| WOLVERINE WORLD WIDE INC | 11,18 | 11,11 |
| ASICS CORP | 11,57 | 14,98 |
| PUMA SE | 12,20 | 9,18 |
| DECKERS OUTDOOR CORP | 8,18 | 6,79 |
| ADIDAS AG | 7,97 | 9,95 |
| UNDER ARMOUR INC-CLASS A | 33,37 | 26,10 |
| HANESBRANDS INC | 14,89 | 14,00 |
| **Average** | **14,40** | **13,14** |
| COLUMBIA SPORTSWEAR | 10,52 | 11,54 |

| **EV to EBITDA (2014)** | **14,40x** | **EV to EBITDA (2015)** | **13,14x** |
|---|---|---|---|
| EBITDA (US$ million) | 8252,86 | EBITDA (US$ million) | 281,07 |
| **Enterprise Value** | **3640,4** | **Enterprise Value** | **3693,3** |
| - Adjustments | (413,47) | - Adjustments | (413,47) |
| **Equity** | **4053,9** | **Equity** | **4106,7** |
| Shares Outstanding | 69,83 | Shares Outstanding | 69,83 |
| **Target Share Price** | **58,06** | **Target Share Price** | **58,81** |

## ABSTRACT

The aim of this Thesis is to evaluate Columbia Sportswear Company's stock at 31 December 2014. In this way, to apply the most adjustable methodology I carry out a research among consensual valuation models. I conclude for company's case DCF-WACC and Relative Valuation are the appropriate ones. Over the recent years, it is seen that company's positive performance in global outdoor market increased market share. Being future perspectives optimistic resulting in a price target of US$ 61,21. Difference between market price, US$ 44,54, and price target led me to recommend a Buy position for Columbia Sportswear's stock. A sensitivity analysis for the most critical variables was done and I note that WACC and perpetuity growth variations highly affect DCF-WACC model output. Regarding, comparison with Goldman Sachs we achieved similar investment recommendation.

# ACKNOWLEDGEMENTS

This thesis means more than knowledge and research. It is the end of a long cycle where I just can remember positive experiences. Given this I would like to acknowledge to some people.

Firstly, I would like to express my gratitude to my advisor, Professor José Carlos Tudela Martins, for all availability, guidance and review during thesis. I am thankful for the support, loyalty and motivation given by my mates: Henrique, “Manolo” and Rui. I also want to acknowledge Ron Pharm, director of investor relations department, for all availability, support and shared information.

At last, this thesis is for my family, girlfriend and friends, whose support was always unconditional.

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# 1 Introduction

This Dissertation aims applying and developing theoretical Equity Valuation knowledge. Regarding this, I will evaluate Columbia Sportswear Company's stock at 31th December 2014. All research done in the next chapters will determine whether stock price is undervalued, overvalued or at the price. At the end, an investment recommendation would be given.

First, I will present the most relevant literature and methodology on Equity Valuation. The main goal of this chapter is to define which kind of models is adjusted for Columbia Sportswear characteristics.

Secondly, I will perform an Industry and Company overview to study both perspectives macro and microenvironment. Therefore, before performing the valuation is essential to have deep knowledge about market characteristics, trends and company's position.

Third, I present the estimation and valuation chapters. In first part, it is going to be incurred forecasting for all relevant items for valuation purposes. Afterwards I will apply valuation models selected in the literature review.

At last, a Sensitive Analysis will be performed to test variables impact in the main model. Following, a comparison between my valuation and an equity research report from an investment bank.

# 2 Literature Review

## 2.1 Introduction – Valuation Importance

Valuation of firms is an exciting topic. It is attractive for all agents that are connected to finance world as investors, managers, regulators and researchers, who are regularly confronted with the question "What is the value of a particular firm?" (Kruschwitz and Löffler, 2006). There is not a right answer, the value of the firm may vary due to a multitude reasons. (Fernandez, 2007).

Therefore, Valuation is the art of estimating the future economic benefits that a certain investment can provide. Valuation follows a process, according to Stowe et al (2007), *which* includes understanding the company to be valued, forecasting the company's performance, and selecting the appropriate valuation model. It plays a big role in Corporate World, especially during mergers and acquisitions.

According to Fernandez (2007), valuation has a wide sort of purposes:

- In company buying and selling: set a maximum price for buyer and minimum price for seller
- Valuation of listed companies: set a target price for shares and take a decision between sell, buy or hold
- Public offerings: justify the price of the offered shares
- Inheritances and Wills: compare share's value with that of the other asset
- Compensation schemes based on value creation: measure managers value creation
- Identification of value drivers: identification and rank the factors that affect company value
- Strategic decisions on the company's continued existence: decisions for the future of the company continue in the business, sell, merge, milk, grow or buy other companies
- Strategic planning: measure the impact of company's possible policies and strategies

"Corporate World has become more dynamic" (Frykman and Tolleryd, 2003),

shareholders are more demanding and managers need to react, in sense, to maximize shareholders wealth and the value of the firm. Currently, managers need to be aware of valuation methods, in order to be able to maximize investors' wealth and to determine the value of the company.

## 2.2 Valuation Methods

In order, to determine the value of the firm analysts use a wide range of methods. Selecting, applying and interpreting the most accurate is important in investment analysis and valuation (Stowe et al, 2007). In line with Professor Damodaran (2007), there are four approaches for valuation: relative, discounted cash flow, liquidation and accounting, and contingent claim valuation. In the same way, Fernandez (2007) classifies valuation methods with six groups named in a different manner.

Firstly, Relative Valuation, a ratio that expresses the value of the company in relation to a certain variable, is used to compare with a group of companies or industry average. In a simple way, we look at the market value of a similar asset to realize the value an asset (Damodaran, 2007).

Secondly, Discounted Cash Flow valuation, as the name indicates, is based on future cash flows to figure out firm value. These cash flows are discounted back to today using the appropriate cost of capital (Frykman and Tolleryd, 2003).

Liquidation and Accounting valuation, third approach, "valuing the existing assets of a firm with accounting estimates or book value often used as a starting point", (Damodaran, 2007).

Finally, Contingent Claim valuation uses option-pricing models to measure the value of the company, for instance Black Scholes model. The method is indicated for industries where the investment is intensive and there is a high degree of uncertainty (Frykman and Tolleryd, 2003).

### 2.2.1 Relative Valuation

In relative valuation, as the name suggests, asset is valued according to the value of similar assets in the market. Comparison is done through multiples, ratios that express

firm value in relation to a specific variable such as revenues, earnings, or book value. Multiples are efficient, in the way, are easy to compute, and a great complementary approach of a complex model for instance DCF.

Thus, multiples are divided in two basics groups: enterprise and equity multiples. Enterprise multiples express the value of the entire enterprise, typical examples are EV/EBITDA and EV/SALES. Equity multiples express the value of the shareholders' claims, commonly identified with p of price, or market capitalization, most traditional equity multiple is Price/Earnings.

Multiples can be very useful to value a firm due to the simplistic way that they can be estimated. However, we must have in mind certain precautions, as choosing the appropriate multiple and compute it correctly. Following Frykman and Tolleryd (2003), in order, to calculate a relative multiple are required several steps: first identification of an appropriate variable for valuing the company, second select comparable companies, third adjust for differences between companies, fourth calculate multiple of the peer group and finally apply it to a chosen company to estimate enterprise value/equity.

In relation to which kind of multiples should be used it is proved empirically by Liu et al (2001), whenever is possible it is preferred to apply forward-multiples instead of historical multiples. Multiples are more accurate when are based in forecasts than in historical data. In accordance with Koller et al (2005), enterprise multiples are the most reliable and less susceptible to manipulation. The famous price to earnings is a criticism target of several researchers, in the way, it is vulnerable to different capital structures, tends to be higher on unlevered firms, and in addition is based on earnings, which don't take into account non-operating items. An alternative to PER, is EV/EBITDA which isn't affected by changes in capital structure and, "depends on ROIC and growth".

Choosing a proper peer group is a challenging task, which distinguishes high-level analysts from common ones. Being in the same industry it is not sufficient there are companies in the same industry completely different in terms of growth, capital structure and risk. Koller et al (2005), suggests comparable companies with similar prospects of return on invested capital and growth rate. Damodaran (2007), has an

identical view about the comparable firms, mentions that peer group members should be similar to the valued firm in terms of cash flows, growth potential and risk.

In order, to reach accurate valuation results with multiples sometimes adjustments are needed. As Frykman and Tolleryd (2003) defend, "truly diligent investor will be sure to adjust the multiple for all possible value-affecting differences between the companies". Regarding EV to EBITA should be adjusted for non-operating items an example is excess cash, since interest is excluded from EBITA cash should be excluded from enterprise value. In Appendix A are presented sales and book value multiples.

### 2.2.2 Discounted Cash Flow

*"We buy most assets because we expect them to generate cash flows for us in the future", Damodaran (2007)*

The most commonly used stand-alone valuation model is the discounted cash flow model (Frykman and Tolleryd, 2003). It is consider an absolute model that specifies an asset's intrinsic value. According to Damodaran (2007) and Fernandez (2007), DCF model determines the company value by estimating future cash flows and discount them at a certain rate that reflects their riskiness. The discount rate shall assume a higher value when evaluating risky assets and lower value in the opposite case. Thus, cash flow prediction should be done carefully for each period, since it affects directly asset valuation. Considering Fernandez (2007), the general method for cash flow discounting is given by the following expression:

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

Where: $CF_i$ = cash flow generated by the company in the period i.

$V_n$ = residual value of the company in the year n.

k = appropriate discount rate for the cash flows' risk.

$g$ = constant growth rate after year n.

The DCF model can be computed through several different approaches. Following Stowe et al (2007), based on cash flow three different returns can be considered:

- Dividends (Dividend Discount Model)
- Free Cash Flow (FCFEquity and FCFFirm)
- Residual Income

There is a fourth approach regarding DCF, it is Adjusted Present Value (APV) that is useful to value business operations, mainly when there are changes in capital structure. The aim of APV is to value, separately, the effects of debt. Luehrman (1997) defends, "APV is exceptionally transparent: you get to see all the components of value in the analysis".

Concerning, the DCF approaches presented above, this thesis is going to approach: Dividend Discount Model, Free Cash Flow to the Equity, Free Cash Flow to the Firm and Adjusted Present Value. Dividend Discount model is discussed on Appendix B.

**Free Cash Flow to Equity (FCFE) Valuation**

Free cash flow to the Equity approach values directly company's equity, as the Dividend Discount Model. According to Damodaran (2007), "one way to describe a free cash flow to equity model is that it represents a model where we discount potential dividends rather than actual dividends".

$$Equity = \sum_{t=1}^{t=\infty} \frac{FCFE_t}{(1+k_e)^t} \quad (2)$$

Where,

$FCFE_t = \ Free\ Cash\ Flow\ to\ \ equity\ in\ year\ t$

$k_e = cost\ of\ equity$

Thus to compute shareholder's equity the free cash flow to equity is discounted at the cost of equity ($k_e$), which represents the inherent risk of dividends. For Stowe et al (2007), FCFE "is the cash flow available to the company's common equity holders after all operating expenses, interest, and principal payments have been paid and necessary investments in working and fixed capital have been made". The formula is given by:

$$FCFE = Net\ Income - Capital\ Expenditures + Depreciations - Change\ in\ non\ cash\ working\ capital - (Debt\ repayments - New\ Debt\ Issued) \quad (3)$$

In the case of Columbia Sportswear Co. there is a low leverage, being the ratio of debt to equity equal to 1,36%, at September 30, 2014. Assuming firm's future strategy is to remain or reduce debt to equity level, it is expected equity close to asset value. Since debt amount is very low, FCFF and FCFE valuation models must be nearby.

**Free Cash Flow to the Firm (FCFF) Valuation**

The FCFF approach values the company as a whole, equity and debt. As a result, to obtain firm value, free cash flow to the firm must be discounted at the weighted average cost of capital (WACC). FCFF is considered the available cash flow to all investors: equity holders, debt holders and non-equity investors. WACC is the combined cost of all investors. The value of the company can be written as the present value of the FCFF:

$$Firm\ Value = \sum_{t=1}^{t=\infty} \frac{FCFF_t}{(1+WACC)^t} \quad (4)$$

Where,

$FCFF_t = Free\ Cash\ Flow\ to\ the\ firm\ in\ year\ t$

$WACC = Weighted\ average\ cost\ of\ capital$

In the above formula is considered a multi stage period where for each period the cash flows are forecasted and discounted at WACC. As stated by Stowe et al (2007), Free cash flow to firm is defined as the "cash flow available to the company's suppliers of capital after all operating expenses have been paid and necessary investments in working capital and fixed capital have been made". The FCFF formula is given by:

$$FCFF = After\ tax\ operating\ income - Capital\ Expenditures + Depreciations - Change\ in\ non\ cash\ working\ capital \quad (5)$$

**Adjusted Present Value (APV)**

APV valuation model follow Modigliani and Miller literature, which proposes that in a perfect market the company's choice of financial structure would not affect the value of

the assets. However, market imperfections as taxes and distress costs, affect enterprise value.

Therefore, adjusted present value is considered as an alternative of WACC, every time the company's capital structure changes constantly. Hence, it is considered more accurate to estimate components separately step by step and evaluate their impact on firm's value. It gives the manager a sense of how leverage is affecting the company, positively and negatively.

In APV method, company's value is calculated by separating "the effects on value of debt financing from the value of the assets of a business"(Damodaran, 2007). According to Fernandez, the firm value using this model is computed by adding two values: first the value of the firm unlevered and secondly the value of debt benefits minus costs. The value of the firm corresponds to:

$$\begin{aligned} &Value\ of\ business \\ &\quad = Value\ of\ business\ 100\%\ equity\ financing \\ &\quad + \ Present\ value\ of\ Expected\ Tax\ Benefits\ of\ Debt \\ &\quad - Expected\ Bankruptcy\ Costs \end{aligned} \tag{6}$$

Regarding the inputs of the previous formula, first step is to compute the value of the firm without debt, where the expected FCFF must be discounted at the unlevered cost of equity. It is similar to WACC-DCF, just changes the discount rate:

$$Value\ of\ Unlevered\ Firm = \sum_{t=1}^{t=\infty} \frac{FCFF_t}{(1+k_u)^t} \tag{7}$$

$$k_u = unlevered\ cost\ of\ equity$$

Next steps are estimated the effects of leverage interest tax shields and bankruptcy costs. Both of them are affected, positively and negatively, by leverage level. There is a controversial discussion among researchers regarding the discount rate for the interest tax shields. Myers (1974) defends that interest tax savings must be discounted at the cost of debt, assuming that interest tax shields must have the same risk as debt. While Harris and Pringle (1985), proposed discounting these tax savings at the cost of unlevered capital. Fernandez (2004) defends that the consistent way to estimate tax

shields is "the difference between the present values of two different cash flows: flows to the unlevered firm and the flows to the levered firm". In agreement with Modigliani and Miller (1963) and Myers (1974), interest tax shields should be discounted at the cost of debt:

$$PV_{(interest\ tax\ shields)} = D * t_c \quad (8)$$

Where,

$D = Debt$

$t_c = Tax\ Rate$

Finally step, is to calculate the expected bankruptcy costs. In theory it is the product between probability of bankruptcy and present value of bankruptcy costs.

$$PV\ of\ Expected\ Bankruptcy\ cost = (Probability\ of\ Bankruptcy)(PV\ of\ Bankruptcy\ Cost) \quad (9)$$

Computing expected bankruptcy costs seems an easy calculation but it is not possible to estimate directly the two inputs. In compliance with Damodaran (2007), there are two ways to calculate probability of bankruptcy, first by estimating the bond ratings and use the empirical estimates of default probabilities of each rating and secondly use a statistical to estimate the probability of default based upon the firm's observable at each level of debt. The bankruptcy costs provide a difficult challenge and can be direct and indirect.

In sum, Adjusted Present Value presents separately the effects of finance the firm with debt and equity. It is advised to use APV valuation approach, whenever company's capital structure is not constant. On the other hand, if capital structure is stable the value of the firm should be similar for DCF-WACC and APV.

In Columbia Sportswear Case I am not going to apply APV model since capital structure is stable. Over the last years Columbia presented a capital structure entirely financed by equity. Appendix U presents Columbia historical capital structure.

### 2.2.3 Excess Return Models – Economic Value Added

Excess return models, based on Damodaran (2007) literature, "have their roots in capital budgeting and the net present value". Cash flows are separated according to the

cash flow return nature: normal and excess. The value of the project/company is written as:

$$\begin{aligned} &Value\ of\ the\ project \\ &\quad = Capital\ Invested\ in\ the\ firm\ today \\ &\quad + PV\ of\ execess\ return\ cash\ flows\ from\ both\ existing\ and\ future\ projects \end{aligned} \tag{10}$$

There are several versions of excess return models, I will analyze the most common one, economic value added (EVA). According to Foundations of Economic Value Added, EVA model differ from other DCF models "because it provides a direct measure of the value added of the invested capital". The EVA is a measure of the value created by a project, it is given by the return minus cost times the invested capital.

$$EVA = (Return\ on\ Capital\ Invested - Cost\ of\ Capital)\ x\ Capital\ Invested \tag{11}$$

In compliance with Koller et al (2010), EVA method is a derivation of the DCF model, to assure equivalence there are several rules that must be followed as invested capital should be of the beginning-of-year, same invested-capital number for both economic profit and ROIC. EVA can be valued as follow:

$$Value = Invested\ Capital_0 + \sum_{t=1}^{\infty} \frac{Invested\ Capital_{t-1} \times (ROIC_t - WACC)}{(1 + WACC)^t} \tag{12}$$

As it is presented by the formula, value of the firm is equal to the invested capital plus the present value of all future value created. The firm is able to generate profit if the return on capital exceeds the cost of capital. In the case, that they are equal the value of operations will equal to invested capital. As it derives from FCFF it is discounted taking into account all enterprise risk. Regarding Excess Return Model it is not going to be applied to value Columbia Sportswear as it is considered a performance evaluation model it is easy to manipulate to reach positive performances (Tebogo 2011).

### 2.2.4 Contingent Claim Valuation

Contingent Claim Valuation, also know as option theory, is considered "a powerful tool in investment intensive industries", which involve a high degree of uncertainty, energy and R&D intensive industries (Frykman and Tolleryd, 2003). Option valuation is used to decide whether or not to take a certain project/asset. According to Trigeorgis (1995), "an options approach to capital budgeting has the potential to conceptualize and

quantify the value of options from active management". This ability reflects the flexibility to react on unexpected event and abandon projects that seam not to be profitable. Most common option pricing models the Binomial and Black-Scholes model. In the case of Columbia Sportswear I am not going to apply this method since it is not appropriate to value company's operations.

### 2.2.5 Further Components in DCF Valuation

#### WACC

Weighted average cost of capital is "the most common way to estimate the required rate of return for a company's suppliers of capital" (Stowe et al, 2007). WACC reflects the risk of the whole company as it includes a weighted average of required rates of return of equity and debt, adjusted to interest tax shields.

$$WACC = \frac{D(1-t)}{V} k_d + \frac{E}{V} k_e \tag{13}$$

In order, to compute WACC we need to take into account firm's capital structure, cost of debt, cost of equity and company's marginal income tax rate. Capital structure it can look an easy task but it requires attention, as value of debt and equity should be market value. The value of equity can be computed directly by multiplying company's shares outstanding by the stock price. On the other hand, according to Frykman and Tolleryd (2003), to value debt there are several alternatives as calculating the net present value of all future debt payments, including debt full payment or using recent transaction by the company.

#### Cost of Equity (Ke)

The cost of equity represents the return of investing on the company for shareholders. It "comprises two components - the risk-free interest that investors earn on a risk-free investment and an additional yield that is appropriate for the level of risk that the investor takes when investing in the company" (Frykman and Tolleryd, 2003). There are several ways to compute the cost of equity as capital asset pricing model (CAPM), Fama-French three-factor model and Arbitrage Pricing Theory model (APT). Following Koller et al (2010), these three models differ in the way they define the risk, CAPM defines risk as stock's sensitivity to the market and Fama-French defines risk as a stock's sensitivity

to the stock market, a portfolio based on firm size and a portfolio based on book-to-market ratios. Therefore in order to estimate the cost of equity I will use the CAPM as it is considered the best model for developing WACC to use in a company valuation.

The cost of equity, through CAPM, is equal to:

$$k_e = r_f + B_e(r_m - r_f) \quad (14)$$

Where,

$$r_f = risk - free\ rate\ of\ return$$

$$B_e = Equity\ Beta$$

$$(r_m - r_f) = market\ risk\ premium$$

**Risk-Free Rate**

The risk-free rate usually is associated with government bond or Treasury bill of the company's country. The recommended maturity for the bond is between 10 and 15 years the duration that matches the investment horizon. In Columbia Company case for the risk-free rate I am going to use US 10 years treasury bonds, as the firm's home country is United States.

**Market Risk Premium**

The market risk premium is given by the average difference of investing in a risky asset (shares) and investing in a risk-free application (Treasury Bonds). Based on Koller et al (2010), there are three methods to estimate market risk premium: measuring historical returns, using regression analysis to project expected mrp and using DCF valuation. None of this models is able to estimate precisely market risk premium, literature on this topic defends that it varies from five to six percent for firms traded in S&P 500.

**Equity Beta**

Equity Beta, according to CAPM, measures how much the company stock and market move together. To estimate precisely, firstly it is estimated a raw beta and then through peer group the beta is improved. The raw beta is computed by:

$$B_e = \frac{Cov(R_e, R_M)}{Var(R_M)} \quad (15)$$

Where,

$R_e = Company\ stock\ returns$

$R_M = Stock\ Market\ returns$

In compliance with Koller et al (2010), several empirical studies lead to the conclusion that the measurement period of raw regressions should include at least 60 data point/periods and be based on monthly returns (example: five years of monthly returns). In this case, Columbia stock returns should be regressed against S&P 500, as it is considered value weighted index well-diversified portfolio for United States.

Therefore, Beta estimation is more accurately, agreeing to Koller et al (2010), when it is considered an unlevered industry beta and then relevering the industry beta to the company's target capital structure. Companies in the same industry are exposed to similar operating risk, so they have similar operating betas. In order to estimate equity beta based on unlevered beta the following formula is given:

$$B_e = B_u \left(1 + \frac{D}{E}\right) \quad (16)$$

As equity beta varies with operating and financial risk, it depends from the company's operating beta times leverage factor. Shareholders of a company with more debt face greater risk, and this increase is reflected in a greater equity beta.

**Cost of Debt (Kd)**

Cost of debt, according to Frykman and Tolleryd (2003), is the interest that a company has to pay at the moment it is funded by lenders. Thus, it should be considered the current market cost of debt and not the historical cost at which the company have borrowed its money.

Damodaran (2012), defends that the cost of debt, it is determined by the following variables:

1. Risk Free Rate: cost of debt is directly associated with risk free rate, increase in riskless means increase in cost of debt;

2. Default risk of the company: "As the default risk of firm Increases, the cost of borrowing money also increase".
3. Tax advantage associated with debt: interest is tax deductible, after-tax cost of debt is a function of tax rate.

The simplest scenario, to estimate the cost of debt it is by using the yield to maturity of company's bonds, which "should be calculated on liquid, option-free, long-term debt" Koller et al (2010). The YTM is considered the discount rate of the bond's coupon (future promise cash flows) can be computed using the following formula:

$$Bond\ Price = \frac{Coupon}{(1+YTM)} + \frac{Coupon}{(1+YTM)^2} + \cdots + \frac{Face + Coupon}{(1+YTM)^N} \quad (17)$$

An alternative way consists on estimating the cost of debt through companies' debt rating and associated default spreads. Estimating cost of debt through yield to maturity is recommended for companies with investment grade debt, at BBB or better. In case of a lower grade, it is suggested by Koller et al (2010) to use APV approach.

For firms without available information about their rating, Damodaran (2012) purposes two alternative ways. Firstly, looking at the recent borrowing history, to get a sense of the types of default spreads being charged. Alternatively estimating a synthetic rating based upon company's financial ratios. For Columbia company situation I am going to select the second suggestion given by professor Damodaran.

**Terminal Value**

Terminal Value, or Continuing Value, is essential to any valuation as it accounts for a large proportion of company's total value. It is important to compute TV because after certain years, forecasting becomes less accurate and difficult to estimate. Terminal Value, according to Frykman and Tolleryd (2003), represents "the free cash flows from the year after the last year of the explicit period to perpetuity" discounted back to today. It is calculated when a firm reaches steady state and starts growing at a constant rate $g_n$. The firm value can be written as (Damodaran 06):

$$Firm\ Value = \sum_{t=1}^{t=\infty} \frac{FCFF_t}{(1+WACC)^t} + \frac{FCFF_{n+1}/(WACC - g_n)}{(1+WACC)^n} \quad (18)$$

After the explicit period, when the free cash flows assume a stable growth, the value of the company to perpetuity is calculated. In line with Damodaran (2007), g, which is considered the expected growth rate in free cash flow should not the growth rate of the economy in the long term.

## 2.3 Conclusion

Following a deep research regarding valuation methods for firms, it is time to select, based on the literature review, the most reliable methods to evaluate Columbia Sportswear Company. As I meant previously it is essential to have knowledge about which valuation method to apply to a certain company.

In addition, I will use DCF-WACC model to value Columbia Sportswear. Based in the literature Columbia Sportswear does not meet any limitation to apply DCF. In this way, I will estimate the model in two growth stages: unstable and stable.

Besides that I will estimate Columbia Sportswear price using relative valuation to provide insights between Columbia and its peer group. I will consider EV/EBITDA, since it is the most appropriate for company's features. Peer group will be selected within a cluster analysis.

In conclusion, I am going to valuate Columbia Sportswear through two distinct models, a principal model DCF-WACC and a crosschecking direct method, multiples valuation.

# 3 Industry Analysis

## 3.1 Industry Overview

Columbia Sportswear Company is inserted in the apparel, footwear and accessories industry. It particularly operates in outdoor, active lifestyle apparel and footwear industry. According to Joshua T Bennett (2014), "The outdoor industry is inherently difficult to define as it is at the intersection of several complementary segments of larger industries", it is considered a hybrid market with a large range of participants and products. Following Joshua's definition, this chapter will abroad several industries, which are directly connected and useful to explain outdoor market situation. In the analysis are going to be presented the most relevant features that affect outerwear industry: weather seasonality, consumers spend partners and innovation. Finally an industry framework and market structure description will be presented.

## 3.2 Weather Seasonality

Outdoor industry is highly dependent on weather conditions. Whenever weather conditions for a particularly season vary significantly from the normal trends, sales for the seasonal products may be adversely affected. Unseasonable weather conditions represent, for the companies, excess inventory forcing the companies to sell products at discounted price. In Columbia Sportswear case the sales are highly dependent on cold-weather seasons, which can be affected significantly by global warming weather trends.

In outdoor industry sales tend to be unequal distributed over the year. It is noticeable that outdoor companies' sales are more significant during the second semester of the year. Outerwear companies tend to focus in cold weather products, which will lead to greater revenue in the winter. To explain sales seasonality during the year I pick a group of companies whose main business are outdoor products Appendix C.

## 3.3 Consumer Spend Patterns and Innovation

Being outdoor industry, inserted in consumer discretionary sector, is directly exposed to consumers' purchase power. According to Columbia Sportswear[1], their market is "heavily dependent…upon discretionary consumer shopping and spending patterns".

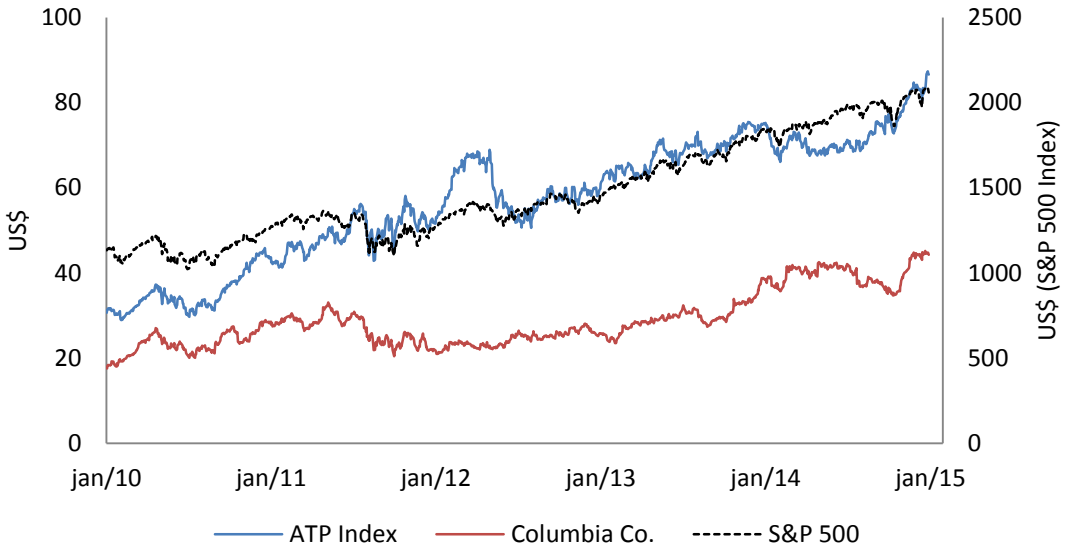
[1] Columbia Sportswear Annual Report 2014.

Consumer purchase power is directly related with countries' macroeconomic situation, consequently in Appendix D it is given a brief macroeconomic advice for major geographic regions: US, Europe and China.

Moreover, in almost every sector product innovation is crucial and outdoor industry is not an exception. Key players' battle to have top products and increase consumer awareness. According to Columbia, innovative products enables outdoor enthusiasts to enjoy "activities longer in greater comfort by keeping them warm or cool, dry and protected". Appendix E displays two examples of developed technology in outdoor industry.

### 3.4 Industry General Framework

In order to analyse Columbia Sportswear share evolution I related it with S&P 500 and Apparel and Textile Products (ATP) index. ATP index was created by me and consists in United Sates apparel and textile firms, with a market capitalization greater than one billion dollars. In Graph 1 it can be seen that in the last five years Columbia stock and ATP index growth performance was greater than S&P 500 index. This means that apparel industry over the last five years presented greater growth rates than total industry average. Regarding Columbia stock and ATP index. Appendix F shows both trends.




Graph 1: ATP index, S&P 500 index and Columbia Co. Share (2010-2015). Source: Bloomberg Data

## 3.5 Market Structure

Outdoor industry is considered as part of sportswear industry. These two markets share several companies, which explains the strong connection between them. Globally sportswear industry is fragmented, being controlled by a small number of participants. The remaining players are smaller firms with strong local brand position, although with financial limitations to expand their business to other regions.

The prospects for the future of sportswear and outdoor industries are optimistic. Globally, consumers are raising health and wellbeing awareness, consequently increasing participation in activities related with outdoor and sports market. Besides that there is a strong connection between sportswear and fashion, a convergence of casual design with athletic performance that represents for manufactures an opportunity to enter into a new segment.

The outdoor Industry is a worldwide industry present all over the world. Major outdoor companies operate around the globe, making outdoor market highly competitive. As result, compared to other apparel and footwear markets, represents high growth opportunities. Therefore, each geographic region is at different development stage, in this way I will give a brief description of the most relevant markets: United States, Europe and China.

United States is the main outerwear market headquartering major companies. Examples of VF Corp, Columbia Sportswear and Deckers Outdoor show United States' strong contribution. According to the Outdoor Foundation[2], in 2013 about 143 million Americans participated in outdoor activities, mainly it can be explained by higher health concerns, great consumers' purchasing power and education.

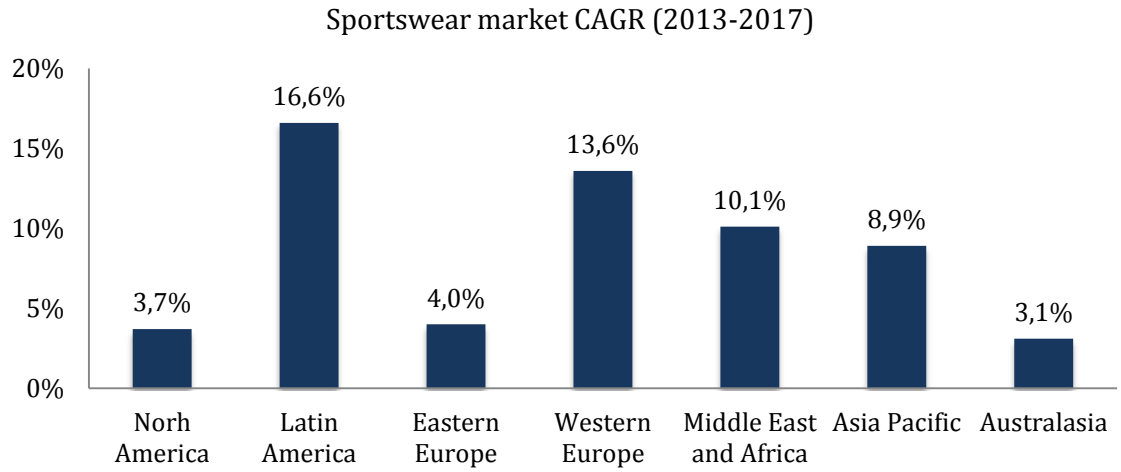
The European outdoor market, despite the crisis and negative macroeconomic situation, takes second place in terms outdoor industry development. According to the European Outdoor Group website, the European outdoor market in 2013, "is worth more than €10 billion and continues to grow". In addition, European outdoor market is fragmented, with the top 10 countries controlling 86% of outdoor retail sales (Appendix G). Thus three market leaders are Germany, Great Britain and France. Over the last year it

[2] Outdoor Participation 2013, by Outdoor Foundation (Appendix H)

presented growth rates of around 3%. European Outdoor market, despite crisis and negative macroeconomic situation

China is an emergent economy, showing negative signals but where all outdoor companies want to gain a relevant position. Although in comparison with the US it is in its infancy. Prospects for this market are high; Chinese middle classes are gaining purchasing power and outdoor activities among the population are becoming trendy. However, competition is fierce: Columbia faces competition from The North Face (owned by VF Corp) and Toread, local brand. Within the Chinese market, apparel multinationals find it difficult to expand their operations over the entire region. Tier 3 and 4 cities, smaller cities, constitute a barrier as local players dominate them. Appendix H shows the multinationals and local players, and strengths and weakness in the Chinese apparel market.

In compliance with Euromonitor forecasting for the Sportswear global market, different growth partners for the different geographic segments are expected (Graph 2). Latin America and Eastern Europe are the regions that represent the highest compound annual growth rates (CAGR). Therefore, sportswear forecasts presented can be used as a guide to estimate outdoor markets. However, they should not be taken as a fundamental trend since it is proved that the outdoor industry is at a different stage in comparison to sportswear.




Graph 2: Source: The Sportswear Revolution: Global Market Trends and Future Growth Outlook, by Euromonitor International

# 4 Company Analysis

## 4.1 Company Overview

Columbia Sportswear headquarters are located in Oregon, United States and company's Chief Executive Officer is Timothy Boyle. Columbia Sportswear Company is a public company, traded on the NASDAQ index, in the apparel and footwear industry. Columbia's core business is the designing, sourcing, marketing and distribution of active outdoor apparel, footwear, accessories and equipment. In Appendix I is presented company's history.

Columbia Sportswear is a global company present in approximately 100 countries and sold through several distribution channels: wholesalers, direct-to-consumer, independent and licensees. The products are branded under five primary brands: Columbia, Mountain Hardwear, Sorel, Montrail and prAna.

## 4.2 Trademarks

Columbia Sportswear Company owns Columbia, Sorel, Mountain Hardware, Montrail, Pacific Trail and prAna. The Columbia brand is the major brand of the company, accounting for approximately 84% of total sales as shown in Appendix J. Under the Columbia brand, the company sells all kind of outdoor products such as apparel, footwear, accessories and equipment. Sorel is the brand with the second highest volume of sales, under this brand the company sells footwear focused on fashion-forward women that look for stylish protection and comfort. The Mountain Hardwear brand's premium-priced technical products target elite alpine athletes, climbing enthusiasts and consumers who are inspired by them. Next comes prAna, the most recent acquisition, purchased for $188,467,000 in May 2014. PrAna is a lifestyle apparel brand sold through approximately 1,400 speciality and online retailers across North America. In his latest conference call, on February 12, 2015, President Tim Boyle explained to investors that the prAna brand acquisition allows for the diversification of their brand portfolio, giving access to an entire new segment of active social conscience consumers. Regarding Columbia Sportswear's categories, apparel and footwear, are explained in Appendix K.

### 4.3 Distribution Channels and Product Manufacturing

Columbia products are sold through a mix of distribution channels that include wholesale, independent distributors, direct-to-consumer channels and licensees. Wholesale channels include speciality outdoor and sporting goods stores, sporting goods chains and Internet retailers. Independent distributors are common in regions where the company does not have direct sales and marketing operations.

Direct-to-consumer is a channel where products are sold to consumers through Columbia's branded retail stores and online. It provides high visibility of the company's brands and helps Columbia to monitor the needs and preferences of consumers. The outlet stores have an important role in the firm's inventory management, as they permit the sale of excess products and avoid inventory losses.

Licensees consist of agreements with third parties, which permit third parties to manufacture or contract to manufacture products under Columbia trademarks. The licensees operate in competitive markets such as apparel, footwear, sunglasses and watches.

Independent factories located outside the United States manufacture all products distributed and sold by the company. Production is almost entirely located in Asia Pacific, with Vietnam and China accounting for the highest share. Columbia believes that the use of independent factories enables limiting the capital expenditures and risks associated with owning such a large property. In addition, outsourcing production increases production capacity and flexibility.

### 4.4 Geographic Mix

Columbia Sportswear is an international organization present all over the globe. Its operations are divided into four regions: United States (US), Latin America and Asia Pacific (LAAP); Europe, Middle East and Africa (EMEA); and Canada. Each segment operates independently in terms of: design, development, marketing and distribution of outdoor apparel, footwear, accessories and equipment. Net Sales for each geographic segment are in Appendix L.

**United States**

The US is the geographic segment that represents the highest share of total sales, in 2014 accounting for 57% of net sales. In this region, distribution network consists of 3300 wholesales, 74 outlet retail stores, 19 branded retail stores, 5 branded e-commerce websites and licensees' sales.

In 2014, sales in this region rose about 23%, which resulted from new brand prAna sales, increase in the wholesale and direct-to-consumer businesses. Columbia Sportswear is making a substantial investment in DTC channel, explained by the additional 21 stores.

**Latin America and Asia Pacific**

In this segment Columbia sells products to approximately 800 wholesales in Australia, New Zealand, Latin America and Asia. In 2014, Columbia Sportswear started to operate a joint venture with Swire Resources Limited ("Swire"), with the aim of developing firm's business in China. JV distribution channels are 80 retail stores, e-commerce website and 50 wholesales. Columbia Sportswear controls 60% of the joint venture, being joint venture operations recognized in company's financial statements.

Last year, net sales for the LAAP region increased 39%, about $137,2 million. The main drivers for this growth were the revenues generated by China JV, offsetting a decrease in Korean and Latin America markets. At the moment this geographic segment represents the second major source of revenue for Columbia Sportswear.

**Europe, Middle East and Africa**

The EMEA region in 2014 contributed 12% of net sales. In this region Columbia benefits from products sales to approximately to 4800 wholesalers, operating 6 retail stores and e-commerce websites across several European countries. This segment is the third in terms of revenue shares; in the previous two years net sales increased by 12,3%. In recent years sales in the EMEA region have been stable, which can be partially explained by the latest financial crisis affecting Europe.

**Canada**

The Canadian region is the geographic segment that represents the lowest share of net sales, 7% of total revenues. In this region Columbia sells products to 1000 wholesales, operates 3 outlet retail stores and an e-commerce website. Following the trend of other regions, last year Canada's net sales increased 28%.

## 4.5 Company's Strategic Growth

Columbia Sportswear is determined to achieve sustainable and profitable growth by creating innovative products, elevating consumer perception and increasing demand for their products. The growth strategies are the following:

- Design innovative products that meet outdoor enthusiasts expectations. An example is the "Turbo Down" insulation, a way of providing insulation in jackets that is less expensive, warmer and more breathable than competing brands.
- Expand direct-to-consumer channel: build a network of first line branded retail stores, expand outlet stores and launch an e-commerce platform. A sales rise in this channel mean higher margins.
- Create strong marketing programs and advertisement campaigns, in order to differentiate Columbia brands from rivals.
- Increase Columbia's footwear business by offering innovative and performance-driven products. Expand distribution into leading footwear retail channels.
- Improve European market performance by creating product variety and marketing programs that are consistent with Columbia's global focus on innovative products.

Columbia is implementing a new enterprise resource planning (ERP) system that supports operations and financial reporting. The new ERP system is already operating in Canada and the United States; the next phase is to implement ERP for international distributors.

# 5 Financial Statements Reorganization and Valuation Estimates

After acquired all knowledge regarding industry and company analyses, it is time to start looking at Columbia Sportswear's statements. Financial statements are organized according to the accounting principles applied by each firm. Thus from a valuation perspective, adjustments for past statements items are needed in order to forecast future statements accurately. In Columbia's case, for valuation purposes, reorganization was applied in Income Statement and Balance Sheet. Thus in this chapter, before forecasting future items, I will proceed with the reorganization of financial statements.

### 5.1.1 Reorganizing Income Statement

Income statement main adjustments are done in Cost of sales and Selling General and Administrative (SGA) items. In both cases stock based compensation, derivative contracts, and, depreciation and amortization expenses are deducted. Loss on disposals of PPE and transaction costs from JV and prAna, are also not considered in SGA item. After the readjustment the income statement is prepared to forecast future items based on historical data. Reorganized income statement can be found in Appendix N.

### 5.1.2 Reorganizing Balance Sheet

In Balance Sheet case fewer adjustments are made, since it is better organized for valuation purposes. In this way, adjusted items are prepaid expenses and accrued liabilities, which included derivative contracts recognized as non-operating item. The reorganized Balance Sheet is presented in Appendix O.

## 5.2 DCF Estimation

Now Columbia's company financial statements are prepared and adapted to estimate valuation items. Next step is to forecast future inputs used in DCF-WACC valuation. I am going to consider an eleven years explicit period, from 2015 to 2025. Balance Sheet and Income Statement will be estimated for five years period.

### 5.2.1 Net Sales

Net sales estimation is fundamental in equity valuation, due to the way it affects the majority of operating items. Columbia's net sales estimation is divided in two stages:

first five years by geographic region, last six years as a whole. During the final six years it is expected a decrease in net sales growth approaching steady state.

In a general view, during 2014 Columbia sales had a great performance increasing 25%. For this contributed China JV, new brand prAna and direct-to-consumer channel. Hence in future the positive trend is expected to continue but not at the same rate. Moreover, Columbia ability to raise net sales is highly connected to the kind of products offer to customers. In Table 1 are forecasted total Columbia Sportswear net sales for the next eleven years. In Appendix P are predicted net sales by geographic segment.

| (US$ millions) | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F |
|---|---|---|---|---|---|---|---|
| Net Sales | 1694 | 1670 | 1685 | 2101 | 2290 | 2431 | 2556 |
| *GR %* | *14,2%* | *-1,4%* | *0,9%* | *24,7%* | *9,0%* | *6,2%* | *5,1%* |
| 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
| 2695 | 2827 | 2940 | 3043 | 3134 | 3213 | 3277 | 3342 |
| *5,4%* | *4,9%* | *4,0%* | *3,5%* | *3,0%* | *2,5%* | *2,0%* | *2,0%* |

Table 1. Net Sales Estimation

#### 5.2.1.1.1 United States

United States is the major source of revenues for Columbia Sportswear, represents more than half of sales. During last year company had invest intensively in US direct-to-consumer channel and supply chain management. Branded stores and websites doubled and at the moment are the major growth drivers in US region.

Moreover, according to February conference call is expected a “high-teen” percentage growth for US market in 2015. This raise is coming from direct-to-consumer channel, prAna and Sorel brands. Regarding DTC, e-commerce last year increased 40% and it is expected to continue the positive trend. In prAna case, it is expected to benefit from Columbia Sportswear’s, valuable, distribution channels. As result, I predict for 2015 a net sales growth equal to 2014 organic growth of 17%.

Furthermore, in subsequent years it is expected a decrease in net sales growth. Since prAna has covered all US market and DTC channel reaches maturity stage. In 2016, I expect a 9% growth and on subsequent years a net sales increase of 6% to 5%.

#### 5.2.1.1.2 LAAP

In LAAP region the main growth driver is China JV. In the past, this segment has faced negative contribution in net sales from North Korea and Latin America. In North Korea, it is considered a competition issue, since Columbia Sportswear is facing difficulties to adapt to this market. In Latin America case, the negative macroeconomic environment it is not permitting company's net sales rise.

In addition, for the year 2015, Columbia Sportswear expectations are not optimistic regarding net sales growth. According to the company's conference call, it is predicted decrease in sales growth about "mid-single digit decline". In this way, I expect a decrease of 4% in net sales driven from JV slowdown, and North Korea and Latin America negative impact.

Considering further years, I predict an improving in LAAP region. In this line, Columbia Sportswear prAna internationalization to other geographic segments means growth opportunity. Resulting in a sales growth recover of 2%, 4%, 5% from 2016 to 2019.

#### 5.2.1.1.3 EMEA

In EMEA segment the European countries are the net sales main contributors. Recently, macroeconomic scenario in this region is not the best. Western European countries are recovering from the financial crisis and, Russia and Ukraine are in conflict.

Having in consideration negative environment in EMEA, Columbia Sportswear recommends a "mid-single digit decline" in net sales for 2015, driven by mid-digit growth in Europe offset by Russian market. So I assume a 4% sales decrease in 2015.

In addition, for remaining years I calculate growth rate based in a weighted average by region. I split the segment in three regions: Western Europe, Eastern Europe, and Middle East and Africa. Since there is not any public information about Columbia's sales inside EMEA, I assumed 10% of sales for MEA and remaining 90% for Europe. Inside European market, I assumed that Columbia Sportswear sales are allocated in the same way as European Outdoor Group, appendix H. In this way, EE and WE, weight in the segment is

respectively, 70% and 20%. Resulting in a CAGR of 4,6%, 2016-2019, according to Euromonitor[3] estimations.

##### 5.2.1.1.4 Canada

Canada represents the smaller segment in terms of net sales. It is a developed country, where outdoor activities participation rates are high. Consequently, Columbia Sportswear invests great amounts in Canadian market. Company's distribution channels are well established and Canada was the first region where the new supply chain software was installed.

For the year 2015, Columbia predicts "mid-single digit USD growth" in Canada. In compliance with Euromonitor[3] report, I assume a CAGR of 3,4%, 2015-2019. In the same way I expect an increase in DTC business, precisely e-commerce.

### 5.2.2 Cost of Sales

Cost of sales item, after the reorganization incurred, includes all direct product costs and costs related to shipping, duties and importation. It is highly dependent from Columbia's ability to generate revenues.

Analysing previous years cost of sales, can be conclude that there is a decreasing trend (Appendix Q), which can be mainly explained by Columbia investment in direct-to-consumer channel. In general, sales through DTC provide higher margins than wholesales and other distribution channels. In this way, in the future I expect that cost of sales margin decreases until 2019, at the time DTC and supply chain investments are assumed to end.

| (US$ millions) | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F |
|---|---|---|---|---|---|---|---|
| Cost of Sales | 966,5 | 945,6 | 934,1 | 1141,6 | 1236,4 | 1300,9 | 1354,7 |
| *% Net Sales* | *57,1%* | *56,6%* | *55,4%* | *54,3%* | *53,5%* | *53,0%* | *52,5%* |
| 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
| 1414,9 | 1470,0 | 1528,8 | 1582,3 | 1629,8 | 1670,5 | 1703,9 | 1738,0 |
| *52,5%* | *52,0%* | *52,0%* | *52,0%* | *52,0%* | *52,0%* | *52,0%* | *52,0%* |

Table 2. Cost of Sales estimation

[3] The Sportswear Revolution: Global Market Trends and Future Growth Outlook, by Euromonitor International (Graph 2)

### 5.2.3 Operating Expenses

Operating expenses are composed by net SGA costs, which include all costs related to Columbia Sportswear's operating activity. As planning, receiving finished goods, warehousing, distribution, retail operations, information technology, advertising and personnel-related costs.

In order to estimate SGA I will base my projections in historical net sales percentage. Over the last years it is shown in Appendix R that SGA margin presented stable values around 32%-33%. In this line, I assume that future operating costs are going to maintain the same trend. Being future margin equal 32,75%, last five years margin.

| (US$ millions) | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F |
|---|---|---|---|---|---|---|---|
| Operating Expenses | 551,5 | 546,0 | 559,2 | 687,0 | 749,8 | 796,3 | 837,1 |
| *% Net Sales* | *32,6%* | *32,7%* | *33,2%* | *32,7%* | *32,7%* | *32,7%* | *32,7%* |
| 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
| 882,5 | 925,8 | 962,8 | 996,5 | 1026,4 | 1052,0 | 1073,1 | 1094,5 |
| *32,7%* | *32,7%* | *32,7%* | *32,7%* | *32,7%* | *32,7%* | *32,7%* | *32,7%* |

Table 3. Operating Expenses

### 5.2.4 Depreciation and Amortization

Depreciation and Amortization are estimated separately. Regarding amortizations I expect they will be equal to US$ 5,14 million until 2019, when the asset is fully amortized. On the other hand, depreciations are estimated by the difference between PPE, CAPEX and Impairments. In table 4 are presented D&A projections.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depreciation | 45,3 | 51,9 | 55,4 | 57,4 | 62,0 | 64,9 | 66,1 | 66,9 | 67,5 | 68,4 | 69,8 |
| Amortization | 5,1 | 5,1 | 5,1 | 5,1 | 5,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| **D&A** | **53,9** | **61,3** | **64,5** | **68,0** | **71,3** | **74,1** | **76,7** | **79,0** | **81,0** | **82,6** | **84,3** |

Table 4. Depreciation and Amortization Estimation

### 5.2.5 Net Licensing Income

Net licensing income represents a small source of income in Columbia's income statement. Licensing income was negatively affected in 2014, when China joint venture began its operations, as part of the income started to be recognise in gross profit. In this way, it is expected that for the following years net licensing income will be equal to 2014 margin, 0,33%. Net licensing income estimations are presented in Appendix S.

### 5.2.6 Impairments of Property Plant and Equipment

Estimating future values for Colombia Sportswear's impairments of PPE is a challenge task. By analysing historical data of the last five years it is seen that the firm presented inconstant impairment values. Hence, to forecast next years I assume impairments equal to the average of the previous five years with a growth equal to the previous year's PPE item. Table 5 displays future Impairment estimation.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Impairment | 3,47 | 3,78 | 4,01 | 4,22 | 4,45 | 4,67 | 4,85 | 5,02 | 5,17 | 5,30 | 5,41 |
| *Growth Rate %* | *9,00%* | *6,20%* | *5,12%* | *5,43%* | *4,90%* | *4,00%* | *3,50%* | *3,00%* | *2,50%* | *2,00%* | *2,00%* |

Table 5. Impairment of Property, plant and equipment estimation

### 5.2.7 Tax Rate

In order to forecast future effective tax rate, historical data was analyse, showing that over the previous two years the tax rate assumed constant values. So it is assumed that for the future years the effective tax rate would be equal to 28,66%, average tax rate of 2013 and 2014.

### 5.2.8 Capital Expenditures

Regarding Columbia's historical CAPEX it is noted that it is low for the size of the firm. This can be explained by the production policy implemented, which contracts manufactures located outside US. Once again, to estimate capital expenditures future values I am going to use historical net sales percentage as a trend. For year 2015, a CAPEX of US$75 million will be assumed, as suggested by the company[4]. In the following years, a decrease in CAPEX as a percentage of revenues will be assumed, since ERP system will be fully implemented and DTC business will be reaching maturity in five years' time. At the end of the explicit period, all investment done will be considered for maintenance purposes.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CAPEX | 75,0 | 75,4 | 76,7 | 80,8 | 84,8 | 85,3 | 85,2 | 84,6 | 83,5 | 82,6 | 84,3 |
| *% Net Sales* | *3,28%* | *3,10%* | *3,00%* | *3,00%* | *3,00%* | *2,90%* | *2,80%* | *2,70%* | *2,60%* | *2,52%* | *2,52%* |

Table 6. CAPEX estimation

[4] Columbia Sportswear Annual Report 2014.

### 5.2.9 Net Working Capital

In Net working capital item are considered all operating current assets and liabilities. On the asset side I assume Accounts Receivable, Inventory, Prepaid expenses and other current assets. On the other side, Accounts Payable and Accrued Liabilities are considered. Taking into account working capital, Columbia's main objective is to "minimize the cycle time from the purchase of inventory from our suppliers to the collection of accounts receivable balances from our customers"[5]. Further NWC estimations can be found in Appendix T.

| (US$ millions) | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NWC | 397,2 | 407,0 | 406,2 | 427,2 | 450,7 | 473,0 | 491,9 | 509,1 | 524,4 | 537,5 | 548,3 | 559,2 |
| Change NWC | 25,0 | 9,8 | -0,8 | 21,0 | 23,5 | 22,3 | 18,9 | 17,2 | 15,3 | 13,1 | 10,8 | 11,0 |

Table 7. Net working capital estimation

Starting with the asset side, accounts receivable represent all payments that would be received from customers within one year. Accounts receivable are already net of allowances for doubtful accounts. To forecast future AR it is used days sales outstanding (DSO1) ratio. Despite the reduction, in previous years of the average days that Columbia takes to collect revenue after sales, it is expected that the number of days will remain stable for the future, equal to 2014 values. Prepaid expenses and other current assets are forecasted based in a DSO2 ratio, also assumed to maintain 2014 values.

Regarding inventory item contains primarily finished goods which cost is determined using the first in first out method. About, inventory management it is being optimized through the investment of ERP system, which is predicted to decrease the number of days that Columbia takes to turn inventory into sales (DSI). The company[5] explains that the main goal is to maintain the minimum level of inventory to deliver goods on time. Therefore I assume that DSI would decrease until 2016 at the time ERP system is implemented over all geographic regions. It is expected to decrease at a percentage equal to the past two years average 6,34%.

On the other hand in liabilities side, accounts payable is the item with the largest weight. AP takes into account all payments that resulted from operating activities and need to be paid within one year. In this case, to estimate future accounts payable is assumed a

[5] Columbia Sportswear Annual Report 2014

constant days outstanding payables (DPO1) ratio equal to the average of the last two years. For accrued liabilities, accrued salaries, bonus, vacation, product warranties and import duties are taken into account. Accrued liabilities are estimated based on DPO2 ratio, assumed to remain stable and equal to the last two years average.

### 5.2.10 Net Taxes

In Net taxes item are included deferred taxes and income tax payables. They are forecasted as percentage of net sales and assumed to stay constant equal to 2014 percentage. In addition, for valuation purposes they will be treated in an equivalent way to the NWC. Table 8 presents total net taxes forecasting. In Appendix U net taxes are calculated separately by item.

| (US$ millions) | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Net Taxes | 29,9 | 32,6 | 34,6 | 36,4 | 38,4 | 40,3 | 41,9 | 43,3 | 44,6 | 45,8 | 46,7 | 47,6 |
| Change Net Taxes | 7,1 | 2,7 | 2,0 | 1,8 | 2,0 | 1,9 | 1,6 | 1,5 | 1,3 | 1,1 | 0,9 | 0,9 |

Table 8. Deferred Taxes estimation

## 5.3 Income Statement Estimation

Further Income Statement items are going to be estimated in this part. Regarding, loss on disposals of PPE, prAna acquisition transaction costs and other non-operating expenses, I am going to assume equal to zero. The first one it is unpredictable and others are assumed to be temporary expenses. In the case of derivatives expenses and China joint venture TSA's it is expected to remain stable. Forecasted income statement can be found in Appendix N.

### 5.3.1 Stock Based Compensation

Stock based compensation is forecasted as percentage of net sales. Over the last two years it presented a constant proportion of sales equal to 0,53%, which I assume to stay constant in the future.

### 5.3.2 Interest Income and Expense

Interest Income is generated by cash applications and short-term investments. In this way to estimate future interest I am going to assume as a percentage of previous years total Cash and Short Term investments. I am expecting a future percentage equal to last three years average, 0,17%. On the other hand, interest expense it is the payment

regarding JV long-term loan, US$ 1.1 million. Since Columbia Sportswear is not going to incur in more debt, I am not going to assume extra interest expense.

### 5.3.3 Non-Controlling Interest

Non-controlling interest is entirely from China JV. In order to forecast future values I assume 1,50% of China region's net sales. For Minority interest item in BS, it is the sum between last year minority interest and current year non-controlling interest.

## 5.4 Balance Sheet Estimation

In this part I am going to estimate the remaining balance sheet items. The forecasted balance sheet is presented in Appendix O. For other noncurrent asset item, other noncurrent liabilities and short-term investments it is assumed to remain constant. Regarding common equity item Columbia Sportswear authorizes a repurchase of US$243.557.000 common stock, thus I am going to assume an annual repurchase of US$ 24,36 million during ten years. At last, Cash and Cash equivalents are going to be estimated as an adjustment item between total assets and, total liabilities and equity.

### 5.4.1 Property, Plant and Equipment

PPE item considers all tangible assets owned by Columbia Sportswear as land, buildings, machinery, software, furniture and construction in progress. Future PPE is predicted as net sales percentage equal to 2014 percentage. Table 9 presents PPE estimation from 2015-2025. In Appendix V are displayed all steps to calculate PPE.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Net PPE | 291,6 | 317,8 | 337,5 | 354,8 | 374,1 | 392,4 | 408,1 | 422,4 | 435,0 | 445,9 | 454,8 |
| *% NS* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* |

Table 9. PPE estimation

### 5.4.2 Intangible Assets

Columbia Sportswear intangible assets are differentiated between assets subject and not subject do amortization. The first ones have indefinite useful lives, include trademarks and trade names, and are periodically evaluated for impairment. In this situation I will not assume impairments in the future. On the other way, regarding assets with finite live I will estimate future values based on amortizations. Investment in intangibles are majorly done through acquisition of new businesses, since they are unpredictable I will

not assume investments. Goodwill is assumed to keep constant, as IA subject to amortizations. In Table 10 are presented all inputs.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial IA | 28,3 | 61,6 | 65,2 | 68,7 | 72,1 | 75,0 | 77,6 | 80,0 | 82,0 | 83,6 | 85,3 |
| *Amortization* | *5,1* | *5,1* | *5,1* | *5,1* | *5,1* | *0,0* | *0,0* | *0,0* | *0,0* | *0,0* | *0,0* |
| **Final IA** | **52,7** | **56,5** | **60,0** | **63,6** | **67,0** | **74,1** | **77,6** | **80,0** | **82,0** | **83,6** | **85,3** |
| **IA (not subject Amort)** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** | **115,4** |

Table 10. Intangible Assets Estimation

### 5.4.3 Long-Term Debt

It is considered joint venture loan conceded by Swire, joint venture partner. Loan value is US $15.728.000 matures in December 31, 2018 and bears interest at a fixed annual rate of 7%. It is assumed that Columbia Sportswear pays annual interest and at maturity loan face value.

### 5.4.4 Retained Earnings

Retained earnings are directly related with the ability to generate profit and dividend payout ratio. I am going to assume that Columbia Sportswear in the future is going to pay the same amount of last year dividends, US$ 0,60 per share.

# 6 Valuation

This chapter will be reserved for valuation estimates. In this way, I am going to value Columbia Sportswear using two distinct models: DCF-WACC and relative valuation. Firstly, I am going to perform DCF looking at the evolution of the cash flows and secondly I will apply multiples valuation as checking model. Adjustments applied to EV reach Columbia Sportswear's equity value will be calculated and justified in DCF part. Columbia's stock valuation will be done for 31/12/2014.

## 6.1 Discounted Cash Flow

DCF is the first method to be applied in Columbia Sportswear equity valuation. In order to calculate DCF model I am going to use formula 4 discussed beyond in the Literature Review. Regarding the inputs used for calculations, FCFF will be computed based on Chapter 6 items and WACC will be estimated according to CAPM.

### 6.1.1 WACC

Weighted average cost of capital constitutes a fundamental input in DCF valuation result. A minimal error in WACC estimation may be translated in a large change in expected stock price. It is going to be estimated according to formula 13 listed in Literature Review. Moreover, considering DCF model main limitation in evaluating firms with unstable capital structure, I analyse in Appendix W Columbia Sportswear's historical capital structure.

| | |
|---|---|
| Ke | 7,91% |
| *Equity/Enterprise Value* | *99,4%* |
| Kd | 2,04% |
| *Debt/Enterprise Value* | *0,6%* |
| *Tax Rate* | *28,7%* |
| **WACC** | **7,87%** |

Table 11. WACC estimation

In addition, calculations regarding WACC are presented separately in table 11. Columbia Sportswear estimated WACC is 7,87%, thus it may be considered a high discount rate since company's leverage level is very low. In general, cost of equity is higher than cost of debt leading unlevered firms to higher discount rates. Regarding the tax rate considered is marginal tax rate assumed equal to effective tax rate.

Besides that, it is necessary to estimate Columbia Sportswear's capital structure in market values. Regarding debt market value is considered the present value of all, interest payments and loan face value discounted, at cost of debt, shown in table 12. While equity market value is straightforward as multiplying share price by the number of shares outstanding. For valuation purposes the share price and number of shares outstanding used will be from day 31/12/2014, respectively US$ 44,54 and 69,828 million. Columbia Sportswear's equity at the end of 2014 was equal to US$ 3.110,4 million.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F |
|---|---|---|---|---|
| Interest Payment | 1,1 | 1,1 | 1,1 | 1,1 |
| Debt | - | - | - | 16 |
| Total payment | 1,1 | 1,1 | 1,1 | 16,8 |
| **Debt Market Value** | **18,7** | **Rating AAA** | | |
| **Kd** | **2,042%** | Interest Coverage Ratio | | |
| Spread | 0,40% | 181 | | |
| Rf (31/12/2014) | 1,64% | | | |

Table 12. Debt Market Value and Cost of Debt Estimation

Columbia Sportswear cost of debt is computed based in a "synthetic" spread plus risk-free rate, all calculations in Table 12. To compute company's "synthetic" spread I followed Damodaran insights. Firstly, I measured default rating through interest coverage ratio, as it is higher than 12,5 it is consider AAA rating. For AAA rating Damodaran advises a spread of 0,40% added to the risk-free rate results in a 2,04% cost of debt.

| **Ke** | **7,91%** |
|---|---|
| Rf (31/12/2014) | 1,64% |
| Beta | 1,14 |
| Market Risk Premium | 5,50% |

Table 13. Cost of Equity Estimation.

On the other hand, cost of equity is estimated by applying Capital Asset Pricing Model formula 14. Inputs considered are presented in table 13. Regarding, risk free rate that will be used I assume ten years US treasury bonds yield at 31/12/2014, 1,64%, as suggested in the literature review. For Market risk premium I applied 5,5% that is in the middle of the consensual interval 5%-6%. The beta is estimated based on a regression between Columbia Sportswear stock and S&P 500 index, well diversified index

suggested for US market. Estimation period is 10 years (121 samples) as recommended by researchers.

### 6.1.2 Free Cash Flow Firm

FCFF is calculated according to the formula 5 stated in 2nd Chapter. For Columbia Sportswear situation is required to add net taxes variation to the original formula, which will be treated as NWC item. In Table 14 is forecasted the FCFF from 2015-2025.

In FCFF calculation is considered NOPLAT subtracted by invested capital. NOPLAT translates all cash flow generated by Columbia's operational activity. While invested capital represents the total cash invested in company operations. Furthermore, I note that over the explicit period FCCF starts' growing at high growth rates and after 2019 initiates a descendant trend until terminal value.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NOPLAT** | **176,6** | **196,2** | **215,4** | **236,7** | **258,4** | **268,7** | **278,1** | **286,5** | **293,6** | **299,5** | **305,5** |
| + D&A | 53,9 | 61,3 | 64,5 | 68,0 | 71,3 | 74,1 | 76,7 | 79,0 | 81,0 | 82,6 | 84,3 |
| + Impairments | 3,5 | 3,8 | 4,0 | 4,2 | 4,4 | 4,7 | 4,9 | 5,0 | 5,2 | 5,3 | 5,4 |
| - CAPEX | 75,0 | 75,4 | 76,7 | 80,8 | 84,8 | 85,3 | 85,2 | 84,6 | 83,5 | 82,6 | 84,3 |
| - var WC | 9,8 | -0,8 | 21,0 | 23,5 | 22,3 | 18,9 | 17,2 | 15,3 | 13,1 | 10,8 | 11,0 |
| - var Deferred Taxes | 2,7 | 2,0 | 1,8 | 2,0 | 1,9 | 1,6 | 1,5 | 1,3 | 1,1 | 0,9 | 0,9 |
| **FCFF** | **146,4** | **184,7** | **184,4** | **202,6** | **225,1** | **241,7** | **255,8** | **269,3** | **282,1** | **293,1** | **299,0** |
| *g* | 22,4% | 26,2% | -0,2% | 9,9% | 11,1% | 7,4% | 5,8% | 5,3% | 4,7% | 3,9% | 2,0% |

Table 14. FCFF estimation (2015-2025)

### 6.1.3 Present Value, Terminal Value and Adjustment

All inputs are computed, it is time to estimate Columbia Sportswear enterprise value by applying formula 18. In table 15 are shown all steps from EV to share price. All DCF model calculations are displayed in Appendix X.

Therefore, in terminal value growth is expected that Columbia Sportswear FCFF grow at 2%, since Columbia is considered an international company's growth cannot be higher than macroeconomic environment. As valuation is done in nominal terms, TV growth rate should be compared with GDP current prices.

In addition, to reach equity value several claims must be deducted in EV. First adjustment to be applied is net debt. Net debt is given by debt market value minus cash and cash equivalents. Second, minority interest subsidiaries should be subtracted from

EV since it represents equity held by other shareholders. In the case of Columbia Sportswear's pensions are not considered as they are at fair value.

After all adjustments done equity value equals US$ 4348,4 million and target share price US$ 62,21, at 31/12/2014. Therefore, through DCF model valuation I note that Columbia Sportswear's share price traded at US$ 42,54 is undervalued. In this case, investment recommendation is a clear BUY.

| | |
|---|---|
| *WACC* | *7,87%* |
| PV FCFF | 1606,1 |
| TV (g=2%) | 5195,7 |
| PV(TV) | 2258,1 |
| **EV** | **3864,2** |
| - Net Debt | -421,6 |
| - Minority Interest Subsidiaries | 11,6 |
| **Equity** | **4274,2** |
| Shares Outstanding | 69,8 |
| **Share Price** | **61,21** |

Table15. Columbia Sportswear share price estimation

## 6.2 Multiples Valuation

Considering multiple valuation model, I find that the most appropriate ratios to evaluate Columbia Sportswear are: EV/EBITDA, P/E and EV/Sales. Since it is a relative valuation model first it is necessary to find Columbia's peer group and later measure industry multiples.

### 6.2.1 Peer Group

Peer group is determined based in a statistical cluster analysis. Before applying cluster analysis, I have done a pre-selection group from apparel and footwear industry, according to three parameters: operating activities, products offered and internationalization.

Next, I proceed for the cluster analysis to define Columbia Sportswear similar companies within four different variables: market capitalization, D/E, ROE and beta equity. In this way I follow peer group selection recommendations size (market cap), profitability (ROE), capital structure (D/E) and risk (beta). Cluster analysis outcome is presented in Appendix Y.

### 6.2.2 Multiples Application

The following step is to estimate peer group multiples. In order to value Columbia Sportswear are estimated trailing and forward multiples. As displayed in table 16, the average of the three comparable multiples are greater than Columbia Sportswear's, which means company's multiples are undervalued in a market perspective.

| Peer Group | EV/EBITDA | | P/E | | EV/SALES | |
|---|---|---|---|---|---|---|
| | 2014 | 2015F | 2014 | 2015F | 2014 | 2015F |
| VF CORP | 15,83 | 13,01 | 24,26 | 19,26 | 2,68 | 2,33 |
| WOLVERINE WORLD WIDE INC | 11,18 | 11,11 | 18,35 | 16,81 | 1,32 | 1,27 |
| ASICS CORP | 11,57 | 14,98 | 23,46 | 25,23 | 1,21 | 1,49 |
| PUMA SE | 12,20 | 9,18 | 36,61 | 29,96 | 0,66 | 0,53 |
| DECKERS OUTDOOR CORP | 8,18 | 6,79 | 14,99 | 12,62 | 1,59 | 1,04 |
| ADIDAS AG | 7,97 | 9,95 | 16,70 | 18,10 | 0,75 | 0,91 |
| UNDER ARMOUR INC-CLASS A | 33,37 | 26,10 | 67,23 | 55,12 | 4,61 | 3,69 |
| HANESBRANDS INC | 14,89 | 14,00 | 19,56 | 17,13 | 2,41 | 2,39 |
| **Average** | **14,40** | **13,14** | **27,65** | **24,28** | **1,90** | **1,71** |
| COLUMBIA SPORTSWEAR | 10,52 | 11,54 | 23,24 | 23,14 | 1,28 | 1,51 |

Table 16. Peer group multiples

In addition, multiples are a useful direct valuation method though there is a common limitation, according to most researchers, called manipulation. In general, accounting principles can be adapted according to manager's willingness to distort real value.

EV/SALES and P/E are not going to be used for Columbia Sportswear's valuation. The first, considers sales which does not takes to account operating risks. Also, price to earnings is highly criticised, due to its vulnerability to manipulation.

Besides that, to value Columbia Sportswear I will apply EV/EBITDA the most consensual among researchers. In fact, EBITDA takes into consideration firm's operating risks and it is adjustable to different leverage levels.

| **EV to EBITDA (2014)** | **14,40x** |
|---|---|
| EBITDA (US$ million) | 252,86 |
| **Enterprise Value** | **3640,4** |
| - Adjustments | (413,47) |
| **Equity** | **4053,9** |
| Shares Outstanding | 69,83 |
| **Target Share Price** | **58,06** |

Table 17. EV/EBITDA estimation (trailing)

| **EV to EBITDA (2015F)** | **13,14x** |
|---|---|
| EBITDA (US$ million) | 281,07 |
| **Enterprise Value** | **3693,3** |
| - Adjustments | -413,47 |
| **Equity** | **4106,7** |
| Shares Outstanding | 69,83 |
| **Target Share Price** | **58,81** |

Table 18. EV/EBITDA estimation (forward)

As result, EV to EBITDA price is similar in trailing and forward ratios. In this way, I will assume an average price equal to US$ 58,44, as table 18 displays.

## 6.3 Valuation Final Conclusions

After all, discounted cash flow and relative valuation models confirm that Columbia Sportswear' stock is trading at a lower price in the market. Given this, my investment advice is a strong BUY.

# 7 Sensitivity Analysis

It is performed a sensitive analysis for DCF model meaningful variables. Firstly, I will carry out a sensitive analysis based in WACC and TV growth rate, since both have a strong impact on company's valuation. In this way, are assumed WACC and TV growth rate variations of 0,5%, displayed in Table 19.

| | | Growth rate TV | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0,00% | 0,50% | 1,00% | 1,50% | **2,00%** | 2,50% | 3,00% | 3,50% | 4,00% |
| WACC | 6,37% | 64,96 | 68,05 | 71,71 | 76,13 | 81,55 | 88,38 | 97,23 | 109,17 | 126,15 |
| | 6,87% | 60,2 | 62,71 | 65,66 | 69,12 | 73,37 | 78,54 | 85,06 | 93,51 | 104,90 |
| | 7,37% | 56,09 | 58,17 | 60,57 | 63,38 | 66,71 | 70,74 | 75,68 | 81,90 | 89,96 |
| | **7,87%** | 52,52 | 54,27 | 56,25 | 58,55 | **61,21** | 64,42 | 68,26 | 72,95 | 78,88 |
| | 8,37% | 49,39 | 50,84 | 52,49 | 54,39 | 56,58 | 59,14 | 62,18 | 65,84 | 70,35 |
| | 8,87% | 46,62 | 47,85 | 49,24 | 50,82 | 52,62 | 54,71 | 57,16 | 60,07 | 63,57 |
| | 9,37% | 44,15 | 45,2 | 46,38 | 47,71 | 49,21 | 50,94 | 52,94 | 55,28 | 58,05 |

Table 19. Sensitivity Analysis: WACC and Perpetuity Growth rate. Share Price in US$.

In addition, I note that WACC variations for the same growth rate have higher influence in Columbia Sportswear's stock price, than the other way around. We can conclude that the model is more sensible for WACC than for TV growth rate. For instance, changing the two variables in the same proportion, it will led to a stock price between US$ 44,15 – US$ 126,15.

Secondly, I will analyse Net Sales and Cost of sales since they have a fundamental weight in DCF valuation. It is seen in table 20, Net Sales and Cost of Sales changes of 1%. Stock price will vary between US$ 55,10 and US$ 66,91.

Evidently, for equivalent changes, it is seen that Net Sales impact in stock price is higher than Cost of Sales. Since sales are the main driver to estimate all inputs for valuation purposes

| | -1 % | **Net Sales** | +1% |
|---|---|---|---|
| -1% | 59,51 | 63,08 | 66,91 |
| **CS** | 57,31 | **61,21** | 64,31 |
| +1% | 55,10 | 58,29 | 61,71 |

Table 20. Sensitive Analysis Net Sales and Cost of Sales.

At last, I note that DCF model is more sensitive for WACC and TV growth rate, than for net sales and cost of sales.

# 8 Comparison Investment Bank Report

In this section I am going to perform a comparison between my valuation model and Goldman Sachs equity research report issued on February 13, 2015.

In this way, we are in accordance, regarding investment advice, we consider Columbia Sportswear's stock price undervalued, resulting in a BUY decision. Although, target prices are different, I estimated US$ 62,27, while GS values at US$ 57.

In addition, models used Columbia Sportswear valuation differ, I applied DCF model whereas GS applies relative valuation P/E six months. I am going to carry out an income statement comparison based on the GS report forecasted period, 2015-2019.

In a general view, income statement estimations are very similar in both perspectives. However, Goldman Sachs' estimations are more optimistic net income is higher for every year. Table 21 displays all the variables compared with GS report.

Regarding, net sales both perspectives are in the same line, in first two years I assume an optimistic scenario, while GS estimates higher sales for the last three years. Cost of sales margin, we both estimate a decreasing margin until 2019, due to an improvement in inventory management and DTC.

Moreover, I expect greater operating expenses and lower D&A in comparison with GS report. Consequently, Goldman Sachs estimates larger EBITDA and EBIT margins. Besides that, GS estimates zero net interest, while I estimate a net interest based on China JV loan and Cash and Short-term investments. Tax rate, are identical GS considers equal to 29%, while I assume equal to 28,66%.

| | 2015F | | 2016F | | 2017F | | 2018F | | 2019F | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Own | GS | Own | GS | Own | GS | Own | GS | Own | GS |
| Sales growth | 9,0% | 8,1% | 6,2% | 5,1% | 5,1% | 5,5% | 5,4% | 5,5% | 4,9% | 5,5% |
| Cost of Sales margin | 54% | 54,2% | 54% | 53,2% | 53% | 52,8% | 53% | 52,4% | 52% | 52% |
| EBITDA margin | 12,3% | 12,7% | 12,8% | 13,3% | 13,3% | 13,9% | 13,8% | 14,6% | 14,3% | 15,3% |
| D&A | 57,7 | 58,1 | 61,3 | 62,4 | 64,5 | 67,1 | 68,0 | 72,1 | 71,3 | 77,5 |
| EBIT margin | 9,8% | 10,2% | 10,3% | 10,7% | 10,8% | 11,3% | 11,3% | 11,9% | 11,8% | 12,5% |
| Net Interest Expense | 0,4 | 0 | 0,3 | 0 | 0,1 | 0 | (0,10) | 0 | (1,4) | 0 |
| Net Income | 154,4 | 159,6 | 173,2 | 176,3 | 191,7 | 196,7 | 212,2 | 218,8 | 233,9 | 242,7 |

Table 21. Comparison IS items. Source: Own estimations and GS estimations

Therefore, to improve comparison between both perspectives I estimated P/E one year forward (Table 22). Price to earnings estimated is higher than GS, since peers considered are different. Nonetheless, applying the same multiple Goldman Sachs values Columbia Sportswear's shares at a greater price. Indeed, since net income estimated by the investment bank is superior to my own estimations.

| **Price to Earnings** | **24,28x** |
|---|---|
| Net Income | 154,37 |
| **Equity** | **3748,0** |
| Shares Outstanding | 69,83 |
| **Target Share Price** | **53,67** |

Table 22. Price to Earnings.

Finally, I note that target price is higher than GS when company's shares are evaluated using DCF. On other hand, when I apply the same multiple GS price target is greater.

# 9 Conclusion

Throughout this thesis I was able to apply my expertise on equity valuation and acquire deep understanding of valuation methodology.

Firstly, in the literature review it was performed a great research among all valuation perspectives. I note that the most acceptable and consensual model is DCF method. Another model highly recommended by researchers is Relative Valuation since it is simple and straightforward to apply. In this way, Columbia Sportswear's valuation was based on these two models: DCF, major model, and multiples, crosschecking model.

Secondly, acquired industry and company knowledge was essential to estimate future financials and apply the most appropriate valuation methodology. In this line, it is seen for Columbia Sportswear a very optimistic outlook, regarding next years, I believe in continuously growth, through expansion of minor brands and investment in supply chain management. Given this, Columbia Sportswear valuation through DCF model resulted in target price above stock price at 31/12/2014. Also, was applied EV/EBITDA multiple considered the most appropriate to value company's operations.

At last, I did a sensitive analysis that I note WACC and TV growth rate have a high impact in my model. For instance variables change of 2% up and down it will led to a stock price between US$ 44,15 – US$ 126,15. Considering, net sales and cost of sales the model is not as sensitive. Moreover, the comparison with Goldman Sachs we achieved a different a target price, due to different income statement assumptions, and equivalent investment recommendation.

# Appendices

## Appendix A: Multiples

Revenue multiple or Sales multiple reflects enterprise value or equity in relation to sales. In general, this multiple works for firms in most stages and situations, in addition it is mainly used on firms that are not currently profitable. Using revenues have the benefits of being hard to manipulate, stable overtime and sensitive to strategic decisions and market competition. However, the main restriction of sales multiple is the assumption of similar operating margins for comparable firms.

$$\frac{EV}{Sales} \; and \; \frac{Price}{Sales}$$

Book Value multiple measures the equity market value in relation to book value. It is commonly used in cases where tangible assets are fundamental to company's revenues, cash flow and value creation, for example banks. For most companies this multiple is not truthful, as it is highly affected by accounting policies and book value may not represent the real economic value of assets.

$$\frac{P_{MV}}{P_{BV}}$$

Peer group selection is essential to reach accurate results through relative valuation. The first step is to elaborate a short list, following the explanations of researchers given at the back. Afterwards, through an empirical study, called cluster analysis we estimate peer group. Cluster analysis is the task of grouping different companies, in the way that companies in the same cluster are more similar. Similarity depends from the variables chosen, for example capital structure, risk or growth.

## Appendix B: Dividend Discount model

Dividend Discount Model, as name indicates, it is based on dividends defined as expected cash flows for stockholders. This approach, developed by John Burr Williams, assumes that the single cash flow that a shareholder has are the dividends paid by the company. The general formula to compute the stock price is given by:

$$Value\ per\ share\ of\ stock = \sum_{t=1}^{t=\infty} \frac{E(DPS_t)}{(1+k_e)^t} \tag{19}$$

Where,

$E(DPS_t) = Expected\ dividends\ per\ share\ in\ period\ t$

$k_e = Cost\ of\ equity$

In perpetuity the stock price is the value of all expected future dividends discounted at the cost of equity. In order to forecast future dividends, reliable assumptions should be made for profitability and company's dividend policy (Damodaran, 2007). The discount rate, cost of equity, reflects time value of money and stock riskiness. Stowe et al (2007), supports that DDM is appropriate for dividend-paying companies, companies with a dividend policy that reflects their profitability and investors take a non-control perspective.

Since dividend growth affects the forecasted value of a stock, were developed several versions of DDM. Gordon (1963), in his literature presents Gordon Growth Model, which assumes that dividends grow indefinitely at a constant rate. The model is given by:

$$Value\ of\ the\ Stock_t = \frac{E(DPS_{t+1})}{k_e - g} \tag{20}$$

Where,

$E(DPS_{t+1}) = Expected\ dividends\ next\ period$

$k_e = Cost\ of\ equity$

$g = Expected\ growth\ rate\ in\ perpetuity$

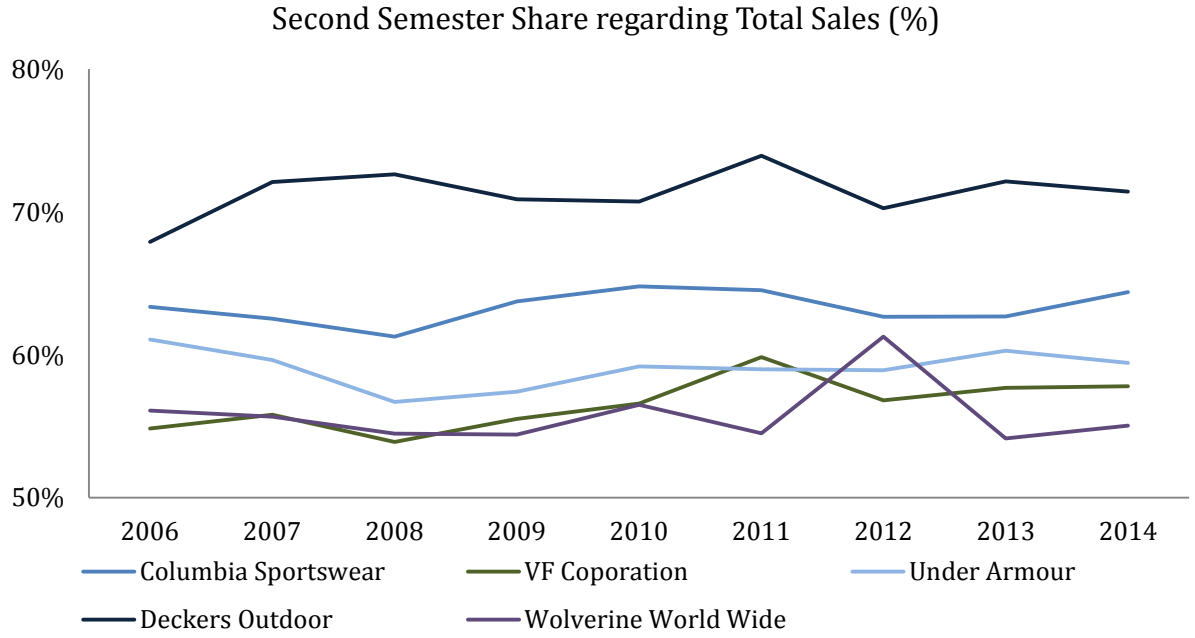
For growth rate estimation we should take into attention that growth must not exceed the growth of the economy firms operates and dividend growth must increase at the same rate of other performance measures (Damodaran, 2007). There is also a two-stage

growth model, a DDM with two growth phases: firstly the growth rate of dividends is not stable, it is considered the explicit period, and afterwards there is a steady state, as Gordon Model. Dividend Discount Model in my view is not the most appropriate to value Columbia Sportswear, for the reason that the firm's dividend policy has not been stable over the past years.

**Appendix C: Outdoor Companies Sales Seasonality**

With regard to the group of companies selected, Deckers Outdoor and Columbia Sportswear, sales present the highest seasonality. It can be explained by their dependence on winter-orientated products sales. On the other hand, VF Corporation and Wolverine World Wide, appear to be the two members less exposed to seasonality, which means a higher diversification of their product portfolio.

Therefore, in order to ease dependence on winter products, Columbia Company is implementing several corporate strategies. The acquisition of new brand prAna will allow constant year-round. Secondly, investment in footwear category, according to CEO Tim Boyle, has potential to be the largest Columbia category and capable of decreasing its dependence on winter apparel, accessories and equipment.




Graph 3. Source: Bloomberg Data

## Appendix D: Macroeconomic Advise

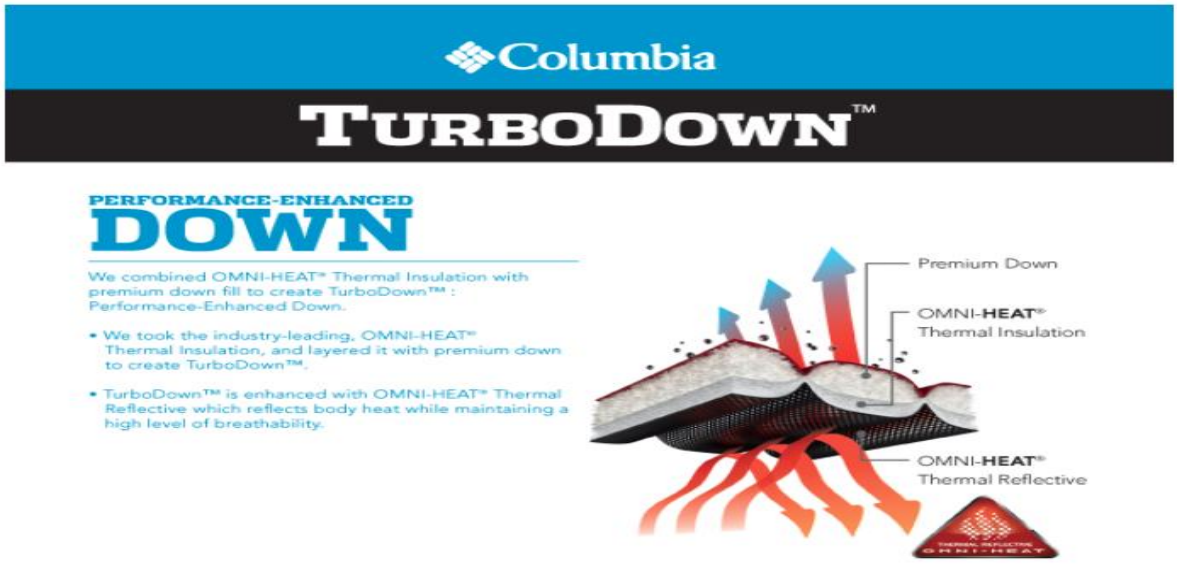
Following a macroeconomic approach for US economy, recently its performance has been positively, with industrial output, employment and retail contributing to the positive trend. On the other hand, income inequalities continue to rise, thus affecting consumer purchase power as only a small group of consumers facing income gains.

In a macroeconomic view Europe apparently is recovering from a heavy crisis. In this way, Germany continues to be the principal contributor for European growth with other major states, as France and Italy, presenting weak expectations and results. On the other hand, Britain is growing rapid presenting positive expectations. It is important to take into consideration Russia and Ukraine conflict that will affect negatively outdoor business.

Starting with a brief preview of the macroeconomic environment in China, which has demonstrated negative signals. Despite the 7% growth rate presented in the last year, Chinese economy is slowing down and growing at the lowest slow rate of the last twenty years. The break in economy may generate more unemployment and social unrest leading to a decline in consumers purchase power. The deceleration can be explained by the decrease in exports, corruption and application of growth policies.

## Appendix E: Turbodown and ThermoBall Technology

Two examples of developed insulations technologies are Thermoball and Turbodown, respectively developed by The North Face and Columbia Sportswear. Several experts defend long term success in outdoor and sportswear industry will be stimulated by product innovation, which enables firms to acquire brand recognition, revenue growth and higher margins. Taking into consideration this market trend, minor innovative companies, without enough resources to invest, are going to be acquired by major players.

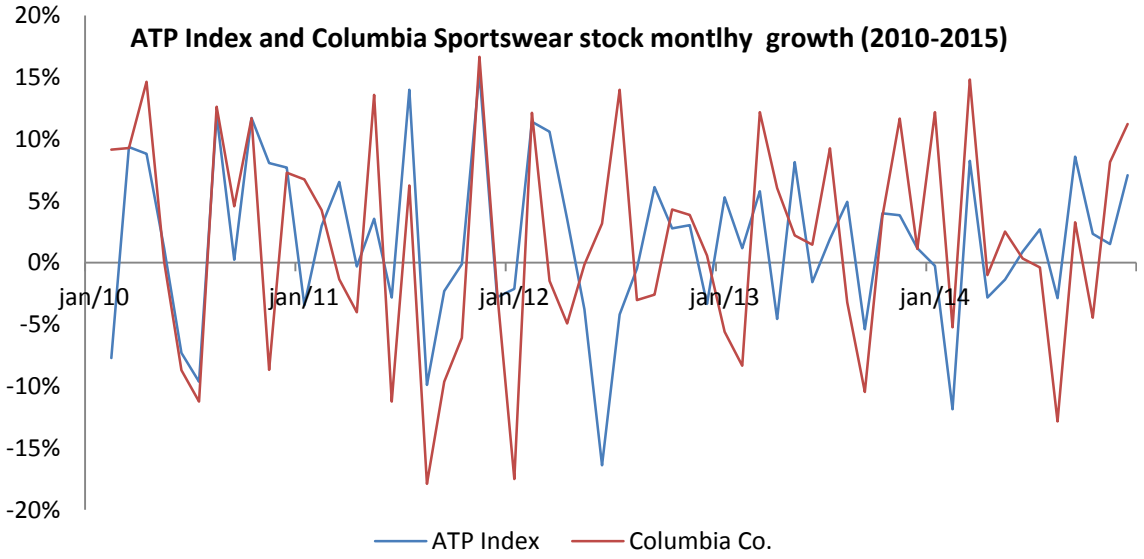



Source: Columbia Sportswear Website


Source: Columbia Sportswear and The North Face website

## Appendix F: ATP Index and Columbia Co. monthly growth rate

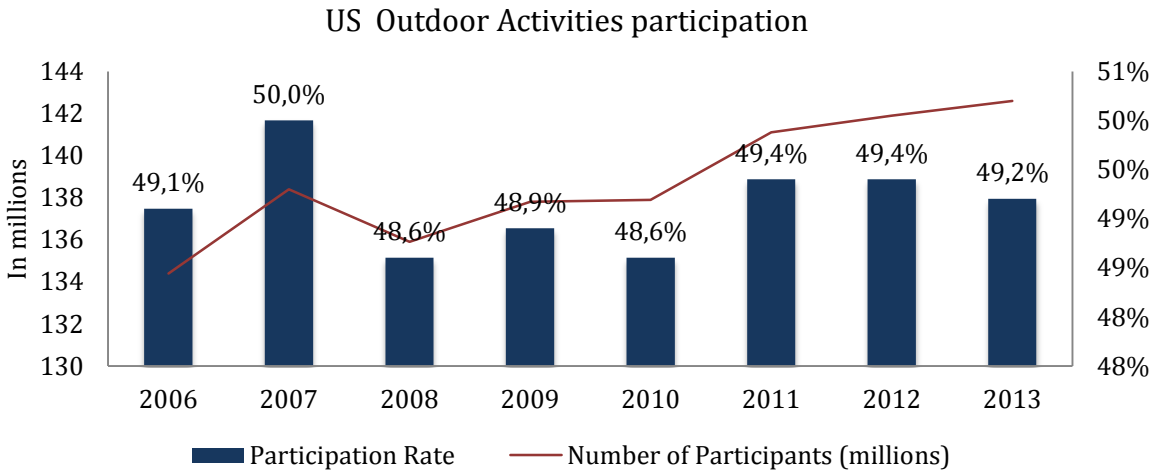
Columbia Sportswear and Apparel and Textile Products index growth rates are presented in graph 19. It is seen similar behaviour between ATP index and Columbia stock growth. As expectable since ATP index integrates several Columbia's peers.




Graph 4. Source: Bloomberg Data

## Appendix G: Outdoor participation United States

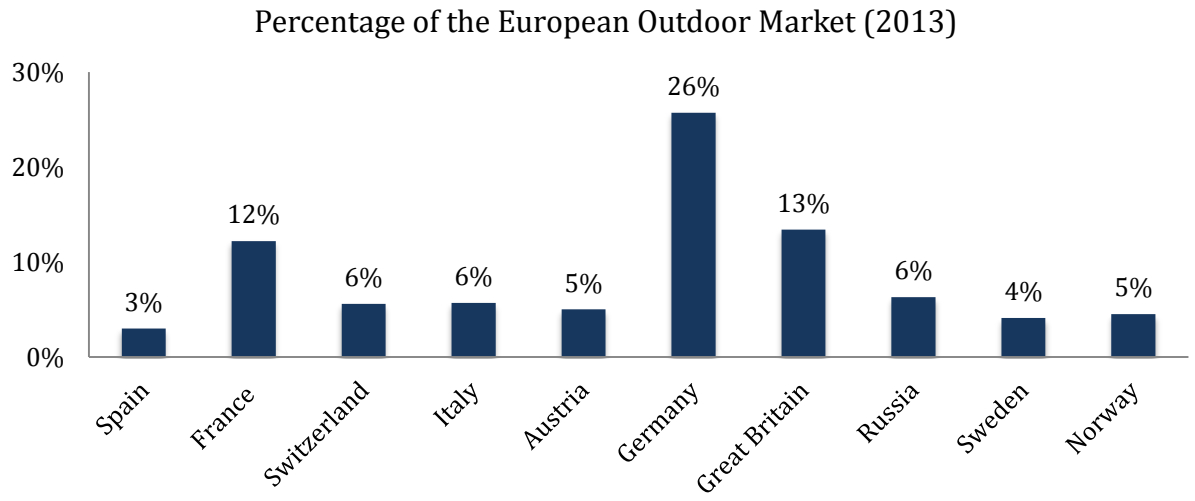
In this Appendix are presented statistics regarding US population outdoor participation. As it is displayed, from 2006 to 2013, participation rate have been around 50% of the US population. It demonstrates US population commitment to outdoor industry. Data presented takes into consideration US citizens above 6 years.




Graph 5. Source: Outdoor Participation Report 2014, Outdoor Foundation

## Appendix H: European Outdoor Market Sales

According to European Outdoor Group for 2013, these were top 10 European countries in terms of sales share. It is perceived that Germany is European market leader and Russia, Eastern Europe market leader.




Graph 6. Source: European Outdoor Group Website

## Appendix I: Chinese Apparel Players Battle for Market Position Across Cities

In this part are analysed main strengths and weakness for local players and multinationals, regarding China apparel market. In this way it is know that tier 1 and 2, major cities, are dominated by multinationals. While, Tier 3 and 4 cities are controlled by local players.

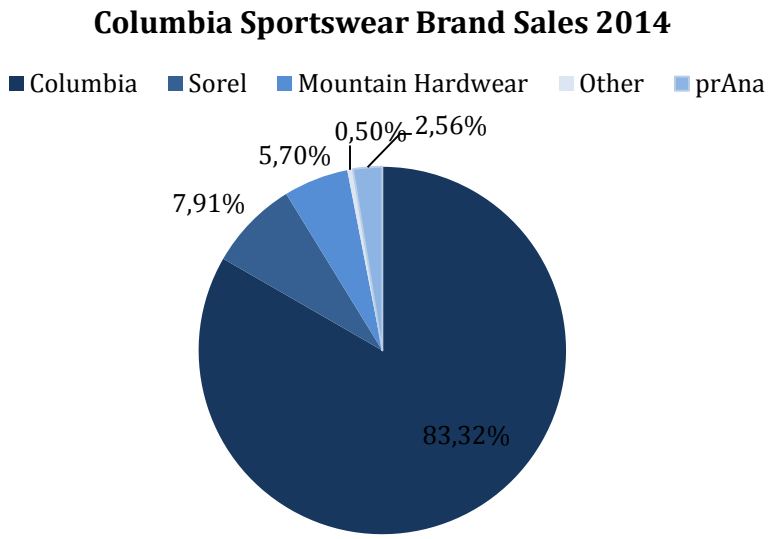
| | Local Players | Multinationals |
|---|---|---|
| **Strengths** | • Deep knowledge of local market;<br>• Strong local government support;<br>• Long-time relationships with local distributors;<br>• Ideal site locations;<br>• Flexible, able to adapt quickly | • International brands;<br>• Management expertise;<br>• Deep pockets and access to capital;<br>• Professional management processes and systems; |
| **Weakness** | • Less depth of management capabilities;<br>• Very little strategic branding experience;<br>• Growth restricted to home market;<br>• Limited access to capital | • Scarce local market and consumer insights;<br>• Weak government and local market connections;<br>• Limited presence in tier 3 and 4 cities; |

Table 23. Source: Wining China's Apparel Market Report by AT Kearney.

## Appendix J: Columbia History Contextualization

Columbia Sportswear Company, known as a "family business gone global", was founded in 1938, by Chairman Gert Boyle's parents, who purchased a small hat business and named it Columbia Hat Company. In 1960, Columbia started to manufacture its own products and changed its name to Columbia Sportswear Company. In 1970, when the head of the company died, his wife, Gert Boyle, and her son assumed company operations, rescuing it from bankruptcy. Columbia went public in 1998. Since then, several company acquisitions have been made: Sorel Corporation in 2000, Mountain Hardwear in 2003, Pacific Trail and Montrail in 2006, and more recently in 2014 prAna brand.

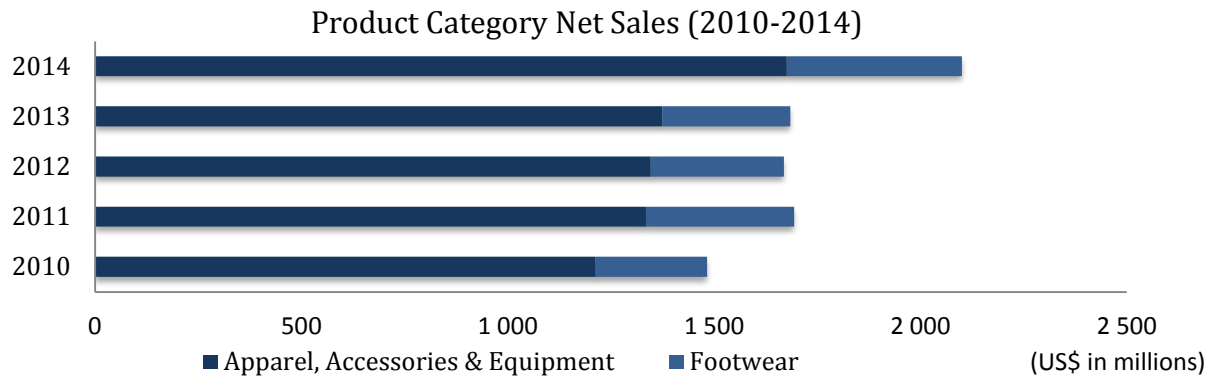
## Appendix K: Columbia Sportswear Brand Sales




Graph 7. Source: Columbia Annual Report 2014.

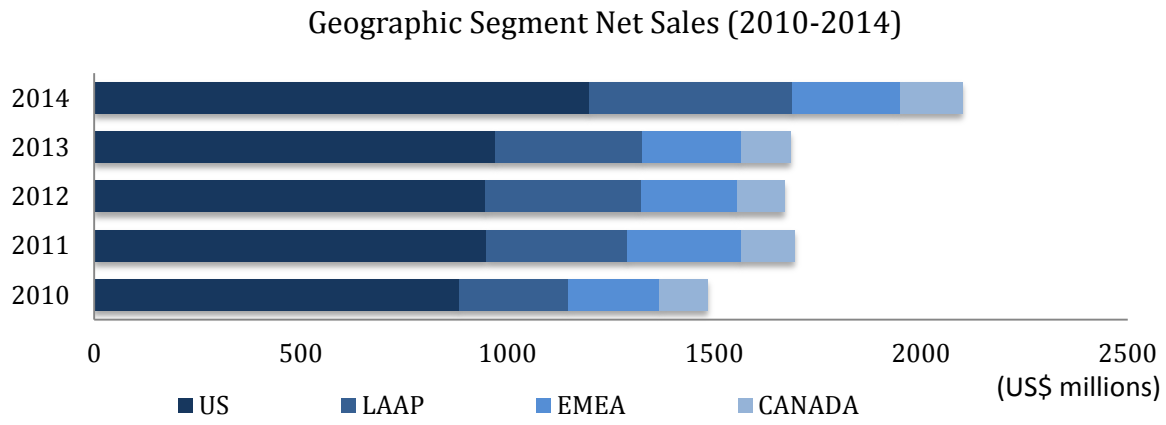
## Appendix L: Product Category Net Sales

Columbia Sportswear provides "high quality apparel, footwear, accessories and equipment for use in a wide range of outdoor and active lifestyle activities by men, women and youth, designed to keep consumers warm or cool, dry and protected"[6]. The company identifies its products in two main categories: apparel, accessories and equipment, and footwear. The first category, in 2014, represented approximately 80% of net sales in 2014. Footwear, on the other hand, represents only one fifth of total sales, although the company intends to explore the inherent potential in this category.




Graph 8. Source: Bloomberg Data.

## Appendix M: Columbia Sportswear Net Sales




Graph 9. Source: Bloomberg Data.

[6] Columbia Sportswear Company Annual Report 2014

## Appendix N: Income Statement Estimation

| (US$ millions) | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Net Sales | 1244,02 | 1483,52 | 1693,99 | 1669,56 | 1685,00 | 2100,59 | 2289,63 | 2431,50 | 2556,09 | 2694,97 | 2826,95 |
| Cost of sales | 719,74 | 851,78 | 966,49 | 945,58 | 934,07 | 1141,58 | 1236,40 | 1300,85 | 1354,73 | 1414,86 | 1470,01 |
| **Gross Profit** | **524,28** | **631,75** | **727,50** | **723,98** | **750,92** | **959,01** | **1053,23** | **1130,65** | **1201,36** | **1280,11** | **1356,93** |
| Net SGA | 401,37 | 486,55 | 556,47 | 549,45 | 568,18 | 687,10 | 755,51 | 802,33 | 843,44 | 889,26 | 932,81 |
| Net Licensing Income | (8,4) | (7,99) | (15,76) | (13,77) | (13,8) | (6,96) | (7,58) | (8,05) | (8,46) | (8,92) | (9,36) |
| Impairment PPE | 0,00 | 3,00 | 6,21 | 1,65 | 9,00 | 0,07 | 3,47 | 3,78 | 4,01 | 4,22 | 4,45 |
| Loss on disposals PPE | 1,83 | 0,33 | 0,27 | (,07) | 0,35 | 0,41 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| Depreciation & Amortization | 36,25 | 38,43 | 43,56 | 40,89 | 40,87 | 54,02 | 57,74 | 61,31 | 64,46 | 67,96 | 71,29 |
| Stock Based Compensation | 6,35 | 6,73 | 7,87 | 7,83 | 8,88 | 11,12 | 12,12 | 12,87 | 13,53 | 14,27 | 14,97 |
| Derivatives | 0,00 | (,88) | 1,38 | (7,54) | 4,47 | 5,65 | 5,65 | 5,65 | 5,65 | 5,65 | 5,65 |
| Joint Venture TSA's (China) | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 8,64 | 8,64 | 8,64 | 8,64 | 8,64 | 8,64 |
| Transaction Cost's prAna acquisition | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 3,39 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| **Income from Operations** | **87,76** | **103,33** | **136,41** | **133,53** | **131,79** | **198,84** | **223,33** | **249,77** | **275,75** | **304,69** | **334,14** |
| Interest Income | (2,09) | (1,56) | (1,27) | (,38) | (,5) | (1,00) | (,73) | (,80) | (1,02) | (1,20) | (1,36) |
| Interest Expense | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 1,05 | 1,10 | 1,10 | 1,10 | 1,10 | 0,00 |
| Other Non-Operating Expenses | 0,00 | 0,00 | 0,00 | 0,00 | 0,87 | 0,27 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| **Income Before Income Taxes** | **89,85** | **104,89** | **137,68** | **133,91** | **131,43** | **198,52** | **222,96** | **249,47** | **275,67** | **304,79** | **335,51** |
| Tax Expense | 22,83 | 27,85 | 34,20 | 34,05 | 37,82 | 56,66 | 63,90 | 71,50 | 79,01 | 87,35 | 96,16 |
| **Net Income** | **67,02** | **77,04** | **103,48** | **99,86** | **93,60** | **141,86** | **159,06** | **177,97** | **196,66** | **217,44** | **239,35** |
| Minority/Non Controlling Interest | 0,00 | 0,00 | 0,00 | 0,00 | (,74) | 4,69 | 4,69 | 4,78 | 4,97 | 5,22 | 5,48 |
| **Net Income Columbia Sportswear Co.** | **67,02** | **77,04** | **103,48** | **99,86** | **94,34** | **137,17** | **154,37** | **173,19** | **191,69** | **212,22** | **233,87** |

Table 24. Source: Bloomberg Data and Own Estimations.

## Appendix O: Balance Sheet Estimation

| (US$ millions) | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cash and cash equivalents | 386,66 | 234,26 | 241,03 | 290,78 | 437,49 | 413,56 | 457,70 | 560,78 | 667,06 | 771,79 | 918,37 |
| Short-term investments | 22,76 | 68,81 | 2,88 | 44,66 | 91,76 | 27,27 | 27,27 | 27,27 | 27,27 | 27,27 | 27,27 |
| Accounts receivable | 226,55 | 300,18 | 351,54 | 334,32 | 306,88 | 344,39 | 375,38 | 398,64 | 419,07 | 441,84 | 463,48 |
| Inventories | 222,16 | 314,30 | 365,20 | 363,33 | 329,23 | 384,65 | 390,20 | 384,53 | 400,46 | 418,23 | 434,54 |
| Prepaid expenses and other current assets | 30,48 | 27,08 | 29,16 | 32,36 | 28,19 | 26,43 | 28,81 | 30,59 | 32,16 | 33,91 | 35,57 |
| Derivatives | 1,55 | 1,17 | 7,24 | 6,22 | 4,89 | 12,75 | 12,75 | 12,75 | 12,75 | 12,75 | 12,75 |
| Deferred income taxes | 31,55 | 45,09 | 52,49 | 50,93 | 52,04 | 57,00 | 62,13 | 65,98 | 69,36 | 73,13 | 76,71 |
| **Total Current Assets** | **921,71** | **990,88** | **1049,53** | **1122,60** | **1250,47** | **1266,04** | **1341,48** | **1467,79** | **1615,37** | **1766,17** | **1955,92** |
| Intangible assets | 43,07 | 67,59 | 39,02 | 37,62 | 36,29 | 143,73 | 138,59 | 133,44 | 128,30 | 123,16 | 118,01 |
| Goodwill | 12,66 | 14,47 | 14,44 | 14,44 | 14,44 | 68,59 | 68,59 | 68,59 | 68,59 | 68,59 | 68,59 |
| Property, plant and equipment | 235,44 | 221,81 | 250,91 | 260,52 | 279,37 | 291,56 | 317,80 | 337,49 | 354,79 | 374,06 | 392,38 |
| Other non-current assets | 0,00 | 0,00 | 28,65 | 23,66 | 25,02 | 22,28 | 22,28 | 22,28 | 22,28 | 22,28 | 22,28 |
| **Total Assets** | **1212,88** | **1294,75** | **1382,54** | **1458,84** | **1605,59** | **1792,21** | **1888,75** | **2029,60** | **2189,33** | **2354,26** | **2557,19** |
| Accounts payable | 102,49 | 130,63 | 148,97 | 142,40 | 173,56 | 214,28 | 230,90 | 242,94 | 253,00 | 264,23 | 274,53 |
| Deferred income taxes | 2,60 | 2,15 | 0,95 | 0,07 | 0,05 | 0,17 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| Income taxes payable | 6,88 | 16,04 | 12,58 | 4,41 | 7,25 | 14,39 | 25,92 | 27,52 | 28,93 | 30,50 | 32,00 |
| Accrued Liabilities | 65,36 | 95,81 | 100,71 | 103,87 | 118,60 | 144,01 | 114,21 | 113,55 | 112,14 | 136,48 | 148,14 |
| Derivatives | 1,96 | 7,00 | 3,79 | 1,32 | 1,80 | 0,28 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| **Total Current Liabilities** | **179,29** | **251,63** | **267,00** | **252,06** | **301,25** | **373,12** | **371,02** | **384,01** | **394,07** | **431,21** | **454,66** |
| Deferred income taxes | 1,49 | 0,00 | 1,75 | 1,81 | 7,96 | 3,30 | 3,60 | 3,82 | 4,02 | 4,24 | 4,45 |
| Income taxes payable | 0,00 | 0,00 | 0,00 | 0,00 | 13,98 | 9,39 | 10,23 | 10,87 | 11,42 | 12,04 | 12,63 |
| Other long-term liabilities | 34,87 | 41,15 | 39,24 | 38,81 | 29,53 | 35,44 | 35,44 | 35,44 | 35,44 | 35,44 | 35,44 |
| Notes payable to related party | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 15,73 | 15,73 | 15,73 | 15,73 | 0,00 | 0,00 |
| **Total liabilities** | **215,66** | **292,78** | **308,00** | **292,68** | **352,72** | **436,98** | **436,02** | **449,86** | **460,68** | **482,93** | **507,18** |
| Common Stock | 0,84 | 5,05 | 3,04 | 24,81 | 52,33 | 72,70 | 48,34 | 48,34 | 48,34 | 48,34 | 48,34 |
| Retained Earnings | 952,95 | 950,21 | 1024,61 | 1094,69 | 1157,73 | 1255,07 | 1372,23 | 1508,30 | 1663,07 | 1838,61 | 2036,06 |
| Accumulated other comprehensive income | 43,44 | 46,72 | 46,90 | 46,66 | 35,36 | 15,83 | 15,83 | 15,83 | 15,83 | 0,00 | 0,00 |
| **Total Columbia Co. shareholders' equity** | **997,23** | **1001,97** | **1074,55** | **1166,17** | **1245,42** | **1343,60** | **1436,41** | **1572,48** | **1727,24** | **1886,95** | **2084,40** |
| Non-controlling interest | 0,00 | 0,00 | 0,00 | 0,00 | 7,45 | 11,63 | 16,32 | 21,10 | 26,07 | 31,29 | 36,77 |
| **Total equity** | **997,23** | **1001,97** | **1074,55** | **1166,17** | **1252,86** | **1355,23** | **1452,73** | **1593,58** | **1753,31** | **1918,24** | **2121,17** |
| **Total liabilities and equity** | **1212,88** | **1294,75** | **1382,54** | **1458,84** | **1605,59** | **1792,21** | **1888,75** | **2029,60** | **2189,33** | **2354,26** | **2557,19** |

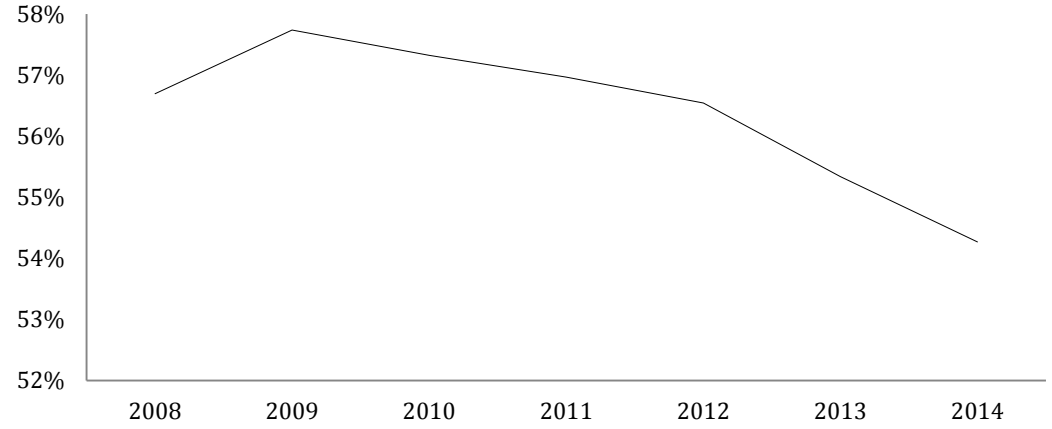
Table 25. Source: Bloomberg Data and Own Estimations.

## Appendix P: Net Sales Estimation and Growth Rates

| (US$ millions) | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Net Sales | | | | | | | | | | | | | | |
| US | 971,32 | 1198,40 | 1412,31 | 1539,42 | 1631,79 | 1729,69 | 1816,18 | 3% | 23% | 18% | 9% | 6% | 6% | 5% |
| LAAP | 354,35 | 491,60 | 471,94 | 481,37 | 500,63 | 525,66 | 551,94 | -6% | 39% | -4% | 2% | 4% | 5% | 5% |
| EMEA | 240,70 | 259,20 | 248,83 | 248,83 | 256,30 | 266,55 | 279,88 | 4% | 8% | -4% | 0% | 3% | 4% | 5% |
| Canada | 118,63 | 151,40 | 156,55 | 161,87 | 167,37 | 173,06 | 178,95 | 3% | 28% | 3% | 3% | 3% | 3% | 3% |
| Net Sales | 1685,00 | 2100,60 | 2289,63 | 2431,50 | 2556,09 | 2694,97 | 2826,95 | 1% | 25% | 9% | 6% | 5% | 5% | 5% |

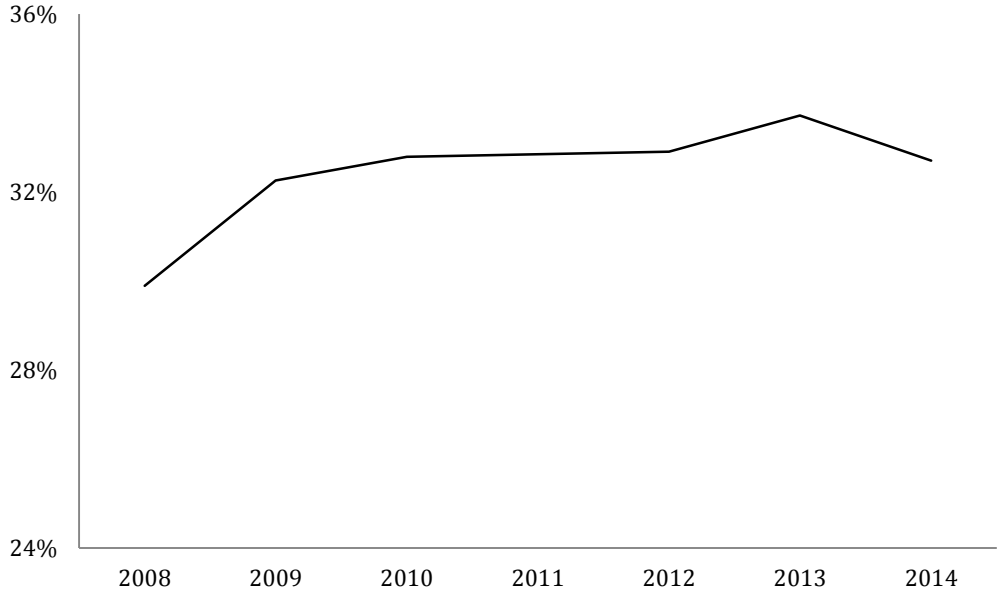
Table 26. Source: Bloomberg Data and Own Estimations

## Appendix Q: Historical Cost of Sales margin (2008-2014)




Graph 10. Source: Bloomberg Data

## Appendix R: Historical SGA Expenses margin (2008-2014)




Graph 11. Source: Bloomberg Data

## Appendix S: Net Licensing Income Estimation

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Net licensing income | 7,58 | 8,05 | 8,46 | 8,92 | 9,36 | 9,74 | 10,08 | 10,38 | 10,64 | 10,85 | 11,07 |
| *% Net Sales* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* | *0,33%* |

Table 27. Source: Own Estimations

## Appendix T: Net Working Capital Estimation

| (US$ millions) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AR | 300,18 | 351,54 | 334,32 | 306,88 | 344,39 | 375,38 | 398,64 | 419,07 | 441,84 | 463,48 | 482,01 | 498,89 | 513,85 | 526,70 | 537,23 | 547,98 |
| **DSO1** | **73,86** | **75,75** | **73,09** | **66,48** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** | **59,84** |
| Inventory | 314,30 | 365,20 | 363,33 | 329,23 | 384,65 | 390,20 | 384,53 | 400,46 | 418,23 | 434,54 | 451,92 | 467,74 | 481,77 | 493,81 | 503,69 | 513,76 |
| **DSI** | **134,68** | **137,92** | **140,25** | **128,65** | **122,98** | **115,19** | **107,89** | **107,89** | **107,89** | **107,89** | **107,89** | **107,89** | **107,89** | **107,89** | **107,89** | **107,89** |
| PE & OCA | 27,08 | 29,16 | 32,36 | 28,19 | 26,43 | 28,81 | 30,59 | 32,16 | 33,91 | 35,57 | 36,99 | 38,28 | 39,43 | 40,42 | 41,23 | 42,05 |
| **DSO2** | **6,66** | **6,28** | **7,08** | **6,11** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** | **4,59** |
| AP | 130,63 | 148,97 | 142,24 | 173,56 | 214,28 | 230,90 | 242,94 | 253,00 | 264,23 | 274,53 | 285,51 | 295,50 | 304,37 | 311,98 | 318,22 | 324,58 |
| **DPO1** | **55,98** | **56,26** | **54,91** | **67,82** | **68,51** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** | **68,16** |
| AL | 95,81 | 100,71 | 103,87 | 118,60 | 144,01 | 156,48 | 164,64 | 171,45 | 179,06 | 186,04 | 193,49 | 200,26 | 206,27 | 211,42 | 215,65 | 219,96 |
| **DPO2** | **41,05** | **38,03** | **40,09** | **46,34** | **46,04** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** | **46,19** |
| NWC | 415,12 | 496,21 | 483,91 | 372,14 | 397,19 | 407,01 | 406,19 | 427,23 | 450,68 | 473,00 | 491,92 | 509,14 | 524,42 | 537,53 | 548,28 | 559,24 |
| **Change NWC** | **103,79** | **81,09** | **-12,31** | **-111,77** | **25,05** | **9,83** | **-0,82** | **21,04** | **23,45** | **22,32** | **18,92** | **17,22** | **15,27** | **13,11** | **10,75** | **10,97** |
| **CCC** | **118,17** | **125,65** | **125,41** | **87,07** | **72,86** | **65,27** | **57,97** | **57,97** | **57,97** | **57,97** | **57,97** | **57,97** | **57,97** | **57,97** | **57,97** | **57,97** |

Table 28. Source: Bloomberg Data and Own Estimations

$$DSO1 = \frac{Accounts\ Receivable}{Net\ Sales} x\ 365\ ;\ DSI = \frac{Inventory}{Inventory} x\ 365;\ DSO2 = \frac{Prepaid\ Expenses\ and\ Other\ Current\ Assets}{Net\ Sales} x\ 365;$$

$$DPO1 = \frac{Accounts\ Payable}{Cost\ of\ Sales} x\ 365;$$

$$DPO2 = \frac{Accrued\ Liabilities}{Cost\ of\ Sales} x\ 365.$$

$$NWC = Total\ DSOs + DSI - Total\ DPOs$$

## Appendix U: Net Taxes Estimation

| (US$ millions) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Deferred Tax Asset | 45,09 | 52,49 | 50,93 | 52,04 | 57,00 | 62,13 | 65,98 | 69,36 | 73,13 | 76,71 | 79,78 | 82,57 | 85,05 | 87,18 | 88,92 | 90,70 |
| *% Net Sales* | *3,04%* | *3,10%* | *3,05%* | *3,09%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* | *2,71%* |
| Income Tax Payable | 16,04 | 12,58 | 4,41 | 21,24 | 23,78 | 25,92 | 27,52 | 28,93 | 30,50 | 32,00 | 33,28 | 34,44 | 35,48 | 36,36 | 37,09 | 37,83 |
| *% Net Sales* | *1,08%* | *0,74%* | *0,26%* | *1,26%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* | *1,13%* |
| Deferred Tax Liability | 0,00 | 1,75 | 1,81 | 7,96 | 3,30 | 3,60 | 3,82 | 4,02 | 4,24 | 4,45 | 4,62 | 4,79 | 4,93 | 5,05 | 5,15 | 5,26 |
| *% Net Sales* | *0,00%* | *0,10%* | *0,11%* | *0,47%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* | *0,16%* |
| Net taxes | 29,05 | 38,15 | 44,72 | 22,85 | 29,92 | 32,61 | 34,63 | 36,41 | 38,39 | 40,27 | 41,88 | 43,34 | 44,64 | 45,76 | 46,68 | 47,61 |
| **Change Net Taxes** | **5,88** | **9,10** | **6,56** | **-21,87** | **7,07** | **2,69** | **2,02** | **1,77** | **1,98** | **1,88** | **1,61** | **1,47** | **1,30** | **1,12** | **0,92** | **0,93** |

Table 29. Source: Bloomberg Data and Own Estimations

$$Net\ Taxes = Deferred\ Tax\ Asset - Income\ Tax\ Payable - Deferred\ Tax\ Liability$$

## Appendix V: Property, Plant and Equipment Estimation

Capital Expenditures item takes into account all investment in direct-to-consumer channel, enterprise resource planning (ERP) software system and PPE maintenance. In terms of DTC, it refers to all investment related to implementation of new branded stores and online stores. In the case of the ERP system, in 2012 Columbia Sportswear started investment in a new software system, which is expected to continue until all supply chain international regions are covered. At the moment the system is already operating in the United States and Canada.

| (US$ millions) | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Initial PPE** | **291,6** | **317,8** | **337,5** | **354,8** | **374,1** | **392,4** | **408,1** | **422,4** | **435,0** | **445,9** | **454,8** |
| Depreciation | 45,3 | 51,9 | 55,4 | 57,4 | 62,0 | 64,9 | 66,1 | 66,9 | 67,5 | 68,4 | 69,8 |
| Capex | (75,) | (75,38) | (76,68) | (80,85) | (84,81) | (85,26) | (85,2) | (84,62) | (83,53) | (82,63) | (84,28) |
| *% Net Sales* | *3,3%* | *3,1%* | *3,0%* | *3,0%* | *3,0%* | *2,9%* | *2,8%* | *2,7%* | *2,6%* | *2,5%* | *2,5%* |
| Impairment | 3,5 | 3,8 | 4,0 | 4,2 | 4,4 | 4,7 | 4,9 | 5,0 | 5,2 | 5,3 | 5,4 |
| *Growth Rate %* | *9,0%* | *6,2%* | *5,1%* | *5,4%* | *4,9%* | *4,0%* | *3,5%* | *3,0%* | *2,5%* | *2,0%* | *2,0%* |
| **Final PPE** | **317,8** | **337,5** | **354,8** | **374,1** | **392,4** | **408,1** | **422,4** | **435,0** | **445,9** | **454,8** | **463,9** |
| *% Net Sales* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* | *13,9%* |

Table 30. Source: Own Estimations

**Appendix W: Columbia Sportswear Capital Structure (2000-2014)**

I note that it is very stable in the past firm had no debt. However, the company in 2014 contracted debt through Chinese JV increasing D/E ratio to 1,16%. It has an insignificant influence in WACC.


Graph 12. Source: Bloomberg Data

## Appendix X: Discounted Cash Flow Estimation

| (US$ millions) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015F | 2016F | 2017F | 2018F | 2019F | 2020F | 2021F | 2022F | 2023F | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Net Sales | 1483,5 | 1694,0 | 1669,6 | 1685,0 | 2100,6 | 2289,6 | 2431,5 | 2556,1 | 2695,0 | 2826,9 | 2940,0 | 3042,9 | 3134,2 | 3212,6 | 3276,8 | 3342,4 |
| Cost of sales | 851,8 | 966,5 | 945,6 | 934,1 | 1141,6 | 1236,4 | 1300,9 | 1354,7 | 1414,9 | 1470,0 | 1528,8 | 1582,3 | 1629,8 | 1670,5 | 1703,9 | 1738,0 |
| **Gross Profit** | **631,7** | **727,5** | **724,0** | **750,9** | **959,0** | **1053,2** | **1130,6** | **1201,4** | **1280,1** | **1356,9** | **1411,2** | **1460,6** | **1504,4** | **1542,0** | **1572,9** | **1604,3** |
| Depreciation & Amortization | 38,4 | 43,6 | 40,9 | 40,9 | 54,0 | 57,7 | 61,3 | 64,5 | 68,0 | 71,3 | 74,1 | 76,7 | 79,0 | 81,0 | 82,6 | 84,3 |
| Impairment PPE | 3,0 | 6,2 | 1,7 | 9,0 | 0,1 | 3,5 | 3,8 | 4,0 | 4,2 | 4,4 | 4,7 | 4,9 | 5,0 | 5,2 | 5,3 | 5,4 |
| Net S,G&A | 486,5 | 556,5 | 549,4 | 568,2 | 687,1 | 755,5 | 802,3 | 843,4 | 889,3 | 932,8 | 970,1 | 1004,1 | 1034,2 | 1060,1 | 1081,3 | 1102,9 |
| Net Licensing Income | (7,99) | (15,76) | (13,77) | (13,8) | (6,96) | (7,58) | (8,05) | (8,46) | (8,92) | (9,36) | (9,74) | (10,08) | (10,38) | (10,64) | (10,85) | (11,07) |
| **Operating Income** | **114,8** | **143,2** | **147,4** | **155,7** | **224,8** | **247,6** | **275,1** | **301,9** | **331,8** | **362,2** | **376,7** | **389,9** | **401,6** | **411,6** | **419,8** | **428,2** |
| Tax | *26,56%* | *24,84%* | *25,43%* | *28,78%* | *28,54%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* | *28,66%* |
| **NOPLAT** | **84,3** | **107,6** | **109,9** | **110,9** | **160,7** | **176,6** | **196,2** | **215,4** | **236,7** | **258,4** | **268,7** | **278,1** | **286,5** | **293,6** | **299,5** | **305,5** |
| + D&A | 38,4 | 43,6 | 40,9 | 40,9 | 54,0 | 53,9 | 61,3 | 64,5 | 68,0 | 71,3 | 74,1 | 76,7 | 79,0 | 81,0 | 82,6 | 84,3 |
| + Impairments | 3,0 | 6,2 | 1,7 | 9,0 | 0,1 | 3,5 | 3,8 | 4,0 | 4,2 | 4,4 | 4,7 | 4,9 | 5,0 | 5,2 | 5,3 | 5,4 |
| - CAPEX | 28,8 | 78,2 | 43,4 | 69,3 | 63,1 | 75,0 | 75,4 | 76,7 | 80,8 | 84,8 | 85,3 | 85,2 | 84,6 | 83,5 | 82,6 | 84,3 |
| - var WC | 103,8 | 81,1 | (12,31) | (111,77) | 25,0 | 9,8 | -0,8 | 21,0 | 23,5 | 22,3 | 18,9 | 17,2 | 15,3 | 13,1 | 10,8 | 11,0 |
| - var Deferred Taxes | 5,9 | 9,1 | 6,6 | (21,87) | 7,1 | 2,7 | 2,0 | 1,8 | 2,0 | 1,9 | 1,6 | 1,5 | 1,3 | 1,1 | 0,9 | 0,9 |
| **FCFF** | **(12,74)** | **(11,01)** | **114,8** | **225,0** | **119,6** | **146,4** | **184,7** | **184,4** | **202,6** | **225,1** | **241,7** | **255,8** | **269,3** | **282,1** | **293,1** | **299,0** |
| Discount FCFF | | | | | | 137,0 | 161,6 | 150,9 | 155,1 | 161,2 | 161,9 | 160,2 | 157,8 | 154,6 | 150,3 | 143,4 |
| *WACC* | *7,87%* | | | | | | | | | | | | | | | |
| PV FCFF | 1606,1 | | | | | | | | | | | | | | | |
| TV (g=2%) | 5195,7 | | | | | | | | | | | | | | | |
| PV(TV) | 2258,1 | | | | | | | | | | | | | | | |
| **EV** | **3864,2** | | | | | | | | | | | | | | | |
| - Net Debt | -421,6 | | | | | | | | | | | | | | | |
| - Minority Interest Subsidiaries | 11,6 | | | | | | | | | | | | | | | |
| **Equtiy** | **4274,2** | | | | | | | | | | | | | | | |
| Shares Outstanding | 69,8 | | | | | | | | | | | | | | | |
| **Share Price** | **61,21** | | | | | | | | | | | | | | | |

Table 31. Source: Bloomberg Data and Own estimations

## Appendix Y: Peer Group

From the first group are statically selected six companies similar to Columbia Sportswear. All variables in table 32 are estimated for 31/12/2014. While, Beta is estimated by Bloomberg, for US and EU stocks are regressed, respectively, against S&P 500 and MSCI index.

| Peer Group | Market Cap | D/E | ROE | Beta |
|---|---|---|---|---|
| VF CORP | 31 511,63 | 0,26 | 8,78% | 0,97 |
| WOLVERINE WORLD WIDE INC | 3 206,02 | 0,96 | 9,19% | 1,17 |
| ASICS CORP | 5 266,11 | 0,37 | 5,18% | 0,78 |
| PUMA SE | 2 735,81 | 0,04 | 7,52% | 0,58 |
| DECKERS OUTDOOR CORP | 2 485,12 | 0,04 | 6,61% | 0,97 |
| ADIDAS AG | 15 757,07 | 0,33 | 3,77% | 0,95 |
| UNDER ARMOUR INC-CLASS A | 17 454,73 | 0,21 | 31,12% | 0,90 |
| HANESBRANDS INC | 13 763,6 | 1,43 | 18,42% | 1,00 |
| **COLUMBIA SPORTSWEAR CO** | **4 141,64** | **0,01** | **26,98%** | **1,43** |

Table 32. Peer group relevant features 31/12/2014. Source: Bloomberg Data

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## Acronyms

AL: Accrued Liabilities

AP: Accounts Payable

APV: Adjusted Present Value

AR: Accounts Receivable

ATP: Apparel and Textile Products

BS: Balance Sheet

BV: Book Value

CAGR: Compound Annual Growth Rate

CAPEX: Capital Expenditure

CAPM: Capital Asset Pricing Model

D&A: Depreciation and Amortization

DCF: Discounted Cash Flow

DDM: Dividend Discount Model

DPO: Days Payables Outstanding

DPS: Dividend per Share

DSI: Days Sales of Inventory

DSO: Days Sales Outstanding

DTC: Direct-to-consumer

EBIT: Earnings Before Interest and Taxes

EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortization

EE: Eastern Europe

EMEA: Europe, Middle East and Africa

EV: Enterprise Value

EVA: Economic Value Added

FCFE: Free Cash Flow to Equity

FCFF: Free Cash Flow to Firm

GS: Goldman Sachs

IMF: International Monetary Fund

IS: Income Statement

LAAP: Latin America and Asia Pacific

MEA: Middle East and Africa

MV: Market Value

NWC: Net Working Capital

PE & OCA: Prepaid Expenses and Other Current Assets

PER: Price Earnings Ratio

PPE: Property, Plant and Equipment

ROIC: Return on Invested Capital

SGA: Selling, General and Administrative

TNF: The North Face

TV: Terminal Value

US: United States

US$: US Dollars

WACC: Weighted Average Capital Cost

WE: Western Europe