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Valuation of Nike, Inc.

Diego João Gouveia de Sousa

Master in Finance

Supervisor:
PhD Professor Pedro Manuel de Sousa Leite Inácio, Department of Finance
ISCTE Business School

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BUSINESS
SCHOOL

Department of Finance

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Resumo

O presente projeto tem como objetivo principal calcular o justo valor das ações da Nike, Inc. a 31 de maio de 2021 e compará-lo com preço de mercado da ação nessa mesma data, de modo a proporcionar uma recomendação aos investidores e gestores da empresa.

Apesar do setor do desporto se encontrar numa fase de consolidação, a pandemia veio acelerar algumas tendências e trazer novas oportunidades neste mercado, realçando a importância das empresas se adaptaram rapidamente às necessidades e preferências dos seus consumidores.

A Nike, Inc., é uma empresa norte-americana, líder mundial no setor do desporto devido à vasta gama e qualidade dos seus produtos e também, pela maneira como promove os mesmos. Está listada na bolsa de Nova Iorque desde 1980 e em 2021, atingiu a sua maior marca de receitas com um volume de negócios de cerca de 44.5 biliões de dólares.

De entre os principais métodos de avaliação apresentados na revisão da literatura, optou-se por fazer uma avaliação com base nos dois métodos seguintes: Fluxo de Caixa Descontados e Avaliação por Múltiplos. Além disso, apresentam-se todos os pressupostos inerentes à avaliação e ainda uma análise sensibilidade para melhor compreensão dos resultados.

Os resultados obtidos em ambos os métodos sugerem que, em 31 de maio de 2021, as ações da Nike, Inc., estavam subvalorizadas, pelo que poderá ser uma boa oportunidade de compra para muitos investidores, tendo em conta os resultados extraordinários de 2021.

Palavras-Chave: Nike, Inc; Avaliação de Empresas; Fluxos de Caixa Descontados; Múltiplos

JEL Classification: G30 (Corporate Finance and Governance: General); G32 (Corporate Finance and Governance: Value of Firms)

Abstract

The main objective of this project is to determine the fair value of Nike´s shares as of 31 May 2021 and compare it with the market share price for the same date, in order to provide a recommendation for both investors and managers of the company.

Although the sports industry being a mature market, the pandemic has accelerated some trends and brought new opportunities for this market, enhancing the importance of companies to rapidly adapt to consumer preferences and changes.

Nike, Inc., is a North American company, leader in the sports market due to the wide range and quality of its products, and how it promotes them. It is listed in New York Stock Exchange since 1980 and for fiscal 2021, it reached its biggest turnover of nearly 44.5 billion USD dollars.

From the main valuation methods presented in the literature review, we chose to perform a valuation using the two following methods: Discounted Cash Flows approach and Multiples Valuation. Moreover, it is presented all the assumptions underlying the valuation exercise and a sensitivity analysis to better understand the results obtained.

The results obtained across both methodologies suggest that, as of 31 May 2021, Nike´s shares were undervalued, being a good opportunity to buy for many investors, considering the extraordinary results of 2021.

Keywords: Nike, Inc.; Valuation; Discounted Cash Flows; Multiples

JEL Classification: G30 (Corporate Finance and Governance: General); G32 (Corporate Finance and Governance: Value of Firms)

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List of Abbreviations

BS – Black and Scholes Model

CAGR – Compound Annual Growth Rate

CAPM – Capital Assets Pricing Model

CEO – Chief Executive Officer

CF – Cash Flow

CFROI – Cash Flow Return on Investment

COO – Chief Operating Officer

DCF – Discounted Cash Flow

DTC – Direct to Consumer strategy

EBIT – Earnings Before Interest and Taxes

EBT – Earning Before Taxes

EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization

EMDEs – Emerging Markets and Developing Economies

EQV – Equity Value

EVA – Economic Value Added

EV/EBITDA – Enterprise Value to EBITDA

EV/EG – Enterprise Value to EBITDA Growth

EV/FCF – Enterprise

EV/Revenues – Enterprise Value to Revenues

FCF – Free Cash Flow

FCFE – Free Cash Flows to Equity

FCFF – Free Cash Flows to the Firm

GDP – Gross Domestic Product

NPV – Net Present Value

PE – Price to Earnings Ratio

PEG – Price to Earnings Growth

P/BV – Price to Book Value

P/CE – Price to Cash Earnings

P/LFCF – Price to Levered Free Cash Flow

P/S – Price to Sales

ROA – Return on Assets

ROE – Return on Equity

ROIC – Return on Invested Capital

R&D – Research and Development

SWOT – Strengths, Weaknesses, Opportunities and Threats

U.S. – United States of America

WACC – Weighted Average Cost of Capital

WFSGI – World Federation of Sporting Goods Industry

Introduction

In a world of constant innovation and rapid development and considering the impact of a global pandemic such as the one we are living right now, understanding corporate valuation gains a lot of importance for managers, investors and stakeholders, since it allows evaluating the true value of a company and identifying the key value-generating areas of the business.

The project that follows aims to present a valuation exercise applied to Nike, Inc. The main objective is to estimate a target value for the firm´s shares as of 31 May 2021 and compare it with the actual share close price.

Nike, Inc., is the largest seller of athletic footwear and apparel in the world. It offers Nike brand products in six categories, including running, Nike basketball, the Jordan brand, football (soccer), training, and sportswear. For fiscal 2021, it has employed over 73 300 people and it has 1 048 retail stores worldwide. In terms of revenues, in 2021 fiscal year the company reached a value of 44.5 bn USD, an EBITDA of 7.73bn USD and a net profit of 5.73bn USD. Overall, Nike´s business strategy is to build the brand value through emotional marketing and sports celebrity endorsements and develop products that have high quality market leading technology.

Following the introduction, this project begins with a literature review section, in which it is provided an insight of the most common valuation methods. Then, the second section presents an analysis of the macroeconomic and industry framework based on World Bank global economic prospects and a study from McKinsey & Company in partnership with World Federation of Sporting Goods Industry. Afterwards, the third section offers a company overview, including the company´s history, business products, distribution, manufacturing, competition, SWOT and Financial Statement analysis. Finally, we have the main section, which is focused on the actual valuation of Nike, Inc., derived from the DCF – FCFF and relative valuation methods. This section includes the main assumptions and forecasts, a sensitivity analysis and a summary of the results obtained.

1. Literature Review

In this section we present a brief introduction about the topic and information related to the three following valuation methods: Discounted Cash Flow, Economic Value Added and Multiples. All the information is based on the most nominated authors in the field of Corporate Valuation.

1.1 Introduction to Valuation

Every asset, financial as well as real has a value (Damodaran, 2002). The process of determining the current or projected worth of an asset or a company is called Valuation.

According to Luerhman (1997), how a company estimates value is a critical determinant of how it allocates resources. And the allocation of that resources, in turn, is a key driver of a company´s overall performance.

Moreover, business valuation plays an important role in several areas of finance. Damodaran (2002) goes further considering valuation as the "heart of finance". The author claims the importance of business valuation in corporate finance, portfolio management and studying market efficiency.

In corporate finance, we consider how best to increase firm value by changing its investment, financing and dividend decisions. In portfolio management, we expend resources trying to find firms that trade at less than their true value and then hope to generate profits as prices converge on value. In studying whether markets are efficient, we analyse whether market prices deviate from value, and if so, how quickly they revert. (Damodaran, 2006).

According to Fernandez (2019), the methods for valuing companies can be classified in the following six groups:

Main Valuation Methods					
Balance Sheet	**Income Statement**	**Mixed (Goodwill)**	**CF Discounting**	**Value Creation**	**Options**
Book Value	Multiples	Classic	Equity CF	EVA	B&S
Adjusted Book Value	PER	Union of European	FCF	Economic Profit	Investment Option
Liquidation Value	Sales	Accounting Experts	Capital CF	Cash Value Added	Expand the Project
Substantial Value	P/EBITDA	Abbreviated Income	Debt Tax Shield	CFROI	Delay the Investment
		Others			Alternative Uses

Table 1. Main Valuation Methods. Pablo Fernandez

Generally, the valuation process involves the following five steps (Pinto et al., 2010):

1. *Understanding the business.* Industry and competitive analysis, together with an analysis of financial statements and other company disclosures, provides a basis for forecasting company performance.

2. *Forecasting company performance.* Forecasts of sales, earnings, dividends, and financial position (pro forma analysis) provide the inputs for most valuation models.

3. *Selecting the appropriate valuation model.* Depending on the characteristics of the company and the context of valuation, some valuation models will be more appropriate than others.

4. *Converting forecasts to a valuation.* Beyond mechanically obtaining the output of valuation models, estimating value involves judgment.

5. *Applying the valuation conclusions.* Depending on the purpose, an analyst may use the valuation conclusions to make an investment recommendation about a particular stock, provide an opinion about the price of a transaction, or evaluate the economic merits of a potential strategic investment.

1.2 Discounted Cash Flow Method (DCF)

Financial theory states that the fair market value of an ongoing business is the present value of its expected cash flows. This conceptual framework is known as the discounted-cash-flow (DCF) valuation approach.

The formula for the DCF approach is shown in equation (1). The cash flow (CF) for each time period (n) is reduced to its present value using the compound-interest term $[(1 + i)^n]$. The value of the company equals the sum of the present values for all periods, one to infinity (Gilbert, A., 1990).

$$\text{Value} = \frac{\text{CF}_1}{(1+\text{i})^1} + \frac{\text{CF}_2}{(1+\text{i})^2} + \cdots + \frac{\text{CF}_\infty}{(1+\text{i})^\infty} = \sum_{\text{n=i}}^{\infty} \frac{\text{CF}_\text{n}}{(1+\text{i})^\text{n}} \quad (1)$$

Where,

$$\text{CF} = \text{cash flow}$$

$$\text{i} = \text{discount rate}$$

$$\text{n} = \text{time periods from one to infinity}$$

In the real world it is very hard to work with time periods that extend to infinity and still maintain any semblance of rationality. Therefore, when the DCF method is used to value a business, the distant future is typically combined into one value representing the estimated sale price (terminal value) at some relatively close point in time. Thus, if equation (1) were to be ended at time period t instead of continuing to infinity, the formula would be modified as shown in equation (2).

$$\text{Value} = \sum_{n=1}^{t} \frac{\text{CF}_n}{(1+\text{i})^n} + \frac{\text{TV}_t}{(1+\text{i})^t} \quad (2)$$

Where,

$$\text{CF} = \text{cash flow}$$

$$\text{i} = \text{discount rate}$$

$$\text{n} = \text{time periods, time} = 1 \text{ to t}$$

$$\text{TV} = \text{terminal value}$$

Typically, we estimate 5 or 10 years of individual cash flows (CF1,CF2, CF3,CF4, . . . ,CFt) and then estimate what the company could be sold for at the end of the period (TVt).

If we assume that cash flows, beyond the terminal year, will grow at a constant rate forever, the terminal value can be estimated as:

$$Terminal\ Value_t = \frac{Cash\ Flow_{t+1}}{i - g_{stable}} \quad (3)$$

Where the cash flow and the discount rate used will depend upon whether you are valuing the firm or valuing the equity. g represents the growth rate.

According to Damodaran (2002), there are three basic ways of estimating growth for any firm. The first is to look at the growth in a firm´s past earnings – its historical growth rate. The second is to trust equity research analysts that follow the firm to come up with the right estimate of growth for the firm and to use that growth rate in valuation. The third, and the one that we will use, is to estimate the growth from a firm's fundamentals.

All these estimates are then discounted to their present values at the valuation date, using standard compound-interest formulas, and the present values are added together to reach a valuation (Gilbert, A., 1990).

There are two paths to discounted cash flow valuation—the first is to value just the equity stake in the business; the second is to value the entire firm, including equity and any other claims in the firm (from bondholders, preferred stockholders, etc.). Although both approaches discount expected cash flows, the relevant cash flows and discount rates are different for each (Damodaran, 2006).

1.2.1 Free Cash Flow to the Firm (FCFF)

Free cash flow to the firm is the cash flow available to the company' s suppliers of capital after all operating expenses (including taxes) have been paid and necessary investments in working capital (e.g., inventory) and fixed capital (e.g., equipment) have been made (Pinto et al., 2010). The formula to compute FCFF is the following:

$$\text{FCFF} = \text{EBIT}\ (1 - \text{tax rate}) + \text{Depreciation} - \text{Capital Expenditure} - \Delta\ \text{Working Capital} \quad (3)$$

After computing the FCFF for each year of the time analysis, we need to compute the Enterprise Value (EV) as follows:

$$\text{Enterprise Value} = \sum_{t=1}^{t=n} \frac{\text{FCFF}_t}{(1 + \text{WACC})^t} + \frac{\text{TV}_n}{(1 + \text{WACC})^n} \quad (4)$$

Where,

$$\text{FCFF}_t = \text{Free Cash Flow of the project considering t period}$$
$$\text{Terminal Value}_n = \text{Free Cash Flow of the company in period n}$$
$$\text{WACC} = \text{Weighted Average Cost of Capital}$$

Then, to obtain the equity value (EQV), we need to adjust the enterprise value (EV) by the value of non-operating assets, financial debt and non- operating liabilities, as follows:

$$\text{EQV} = \text{EV} + \text{Non} - \text{Operating Assets} - \text{Financial Debt} - \text{Non} - \text{Operating Liabilities} \quad (5)$$

Thus, EQV reflects what the business is worth plus what we can receive from the sale of all the assets that aren´t needed to perform the business minus what the company owes to its creditors (Mota, 2015).

1.2.2 Free Cash Flow to Equity (FCFE)

Free cash flow to equity is the cash flow available to the company' s holders of common equity after all operating expenses, interest, and principal payments have been paid and necessary investments in working and fixed capital have been made. FCFE is the cash flow from operations minus capital expenditures minus payments to (and plus receipts from) debt holders (Pinto et al., 2010).

The Free Cash Flow to Equity can be computed directly using the following formula,

$$\text{FCFE} = \text{Net Income} + \text{Depreciation\&Amortization} - \text{Capex} - \Delta\text{WC} + \text{Net Borrowing} \quad (6)$$

Or indirectly, using the FCFF:

$$\text{FCFE} = \text{FCFF} + \text{Net Borrowing} - \text{Intereste Expense}\,(1 - \text{t}) \quad (7)$$

While in the FCFF we use a two-staged approach to value (first we compute EV and then the EQV), in this case, as we are discounting all the cash flows that remain for the shareholders, we obtain the EQV immediately (Mota, 2015).

Therefore, and similarly to the FCFF approach, we will have two main periods: first, the time necessary to stabilize cash flows to a steady state, and second, perpetuity.

$$\text{Equity Value} = \sum_{\text{t=1}}^{\text{t=n}} \frac{\text{FCFE}_\text{t}}{(1 + K_e)^\text{t}} + \frac{\text{TV}_\text{n}}{(1 + K_e)^\text{n}} \quad (8)$$

1.2.3 Discount Rate

The second step in the DCF process is the determination of the discount rate. According to Gilbert (1990), a discount rate is defined as the rate of return an investor would require to be induced to invest in the cash-flow stream being discounted.

Furthermore, the author claims six important aspects of discount rates such as: discount rates are affected by the market; vary with time; depend on what is being discounted; must be risk adjusted; are based on yields available on alternative investments; and are inflation adjusted.

As previously mentioned, there are two main approaches when using the discounted cash flow valuation, the free cash flow to the firm (FCFF) and the free cash flow to equity (FCFE). The former uses as discount rate the weighted average cost of capital (WACC) while the latter uses the cost of equity (Ke).

1.2.3.1 Cost of Equity

To estimate the cost of equity we will apply the most common method used by appraisers, the Capital Asset Pricing Model (CAPM). According to Bodie et al (2014), this model assumes that investors are single-period planners who agree on a common input list from security analysis and seek mean-variance optimal portfolios.

Moreover**,** the CAPM assumes that security markets are ideal in the sense that: They are large, and investors are price-takers; There are no taxes or transaction costs; All risky assets are publicly traded; Investors can borrow and lend any amount at a fixed risk-free rate (Bodie et al., 2014).

We can compute the cost of equity using the following formula:

$$R_E = R_F + (R_M - R_F)B \quad (9)$$

Where,

$$R_E = \text{expected return}$$
$$R_F = \text{risk} - \text{Free Rate}$$
$$R_M = \text{expected return on the market}$$
$$B = \text{expected systematic risk (commonly called beta)}$$

The needed inputs to CAPM are obtained from several sources. The return on the market (Rm) is usually derived from historical stock market returns. Regarding the beta, these are only published for publicly traded companies, which is the case of Nike.

The risk-free rate is the easiest factor to identify objectively. It is generally recognized that there are three measures of the risk-free rate: long-term government bonds, intermediate-term Treasury notes, and short-term Treasury bills. The appropriate risk-free instrument to use in the

construction of a discount rate is the one that matches the investment horizon (Gilbert, A., 1990). Thus, to evaluate Nike we will use the 10 Year yield US Treasury Bond as the risk-free rate.

1.2.3.2 Weighted Average Cost of Capital (WACC)

In firm valuation, free cash flows are available to all investors. Consequently, the discount factor for free cash flow must represent the risk faced by all investors. The weighted average cost of capital (WACC) blends the rates of return required by debt holders (*kd*) and equity holders (*ke*). For a company financed solely with debt and equity, the WACC is defined as follows (Koller et al, 2010):

$$WACC = \frac{D}{D+E}K_d(1-T_m) + \frac{E}{D+E}K_e \quad (10)$$

where debt (*D*) and equity (*E*) are measured using market values. Note how the cost of debt has been reduced by the marginal tax rate (*Tm*). The reason for doing this is that the interest tax shield (ITS) has been excluded from free cash flow. Since the interest tax shield has value, it must be incorporated in the valuation. Enterprise DCF values the tax shield by reducing the weighted average cost of capital (Koller et al, 2010).

Why move interest tax shields from free cash flow to the cost of capital? By calculating free cash flow as if the company were financed entirely with equity, we can compare operating performance across companies and over time without regard to capital structure. By focusing solely on operations, we can develop a clearer picture of historical performance, and this leads to better performance measurement and forecasting (Koller et al, 2010).

According to Koller et al (2010), to estimate the cost of debt for investment-grade companies, we use the yield to maturity of the company's long-term, option-free bonds. Then, multiply our estimate of the cost of debt by 1 minus the marginal tax rate to determine the cost of debt on an after-tax basis, as follows:

$$After\ tax\ cost\ of\ debt = (Rf + Default\ Spread) \times (1 - T_c) \quad (11)$$

The above formula consists in three parameters: risk free rate, default spread and the corporate tax rate. The first has already been analysed above, the corporate tax rate, is the effective tax rate that should be used each year. The default spread we can obtain from the credit rating of the company as Nike is listed in the New York Exchange Market.

1.3 Economic Value Added (EVA)

The logic of EVA is based on the concept of economic profit, which was first proposed by Alfred Marshall in the end of the 19th century. According to Marshall (1890), economic profit depends not only on the actually recorded accounting expenses, but also on the opportunity costs of the firm's capital. These costs (or interest on capital employed) should be deducted from earnings to arrive at the economic profit of the firm.

The economic-profit model highlights how and when the company creates value yet leads to a valuation that is identical to that of enterprise DCF. Economic profit measures the value created by the company in a single period and is defined as follows (Koller et al, 2010):

$$\text{Economic Profit} = \text{Invested Capital} \times (\text{ROIC} - \text{WACC}) \quad (12)$$

Since ROIC equals NOPLAT divided by invested capital, we can rewrite the equation as follows:

$$\text{Economic Profit} = \text{NOPLAT} - (\text{Invested Capital} \times \text{WACC}) \quad (13)$$

Thus, the firm is creating value if it generates enough profit to fully repay the return demanded by shareholders and creditors and still obtains a surplus (the EVA). In another vision, a firm with a non-negative EVA is a firm where the resources are being efficiently allocated (Mota, 2015).

Similar to Discounted Cash Flow, Economic Value Added is a simple extension of the net present value rule. The net present value of the project is the present value of the economic value added by that project over its life (Damodaran, 2006).

$$NPV = \sum_{t=1}^{t=n} \frac{EVA_t}{(1 + K_c)^t} \quad (14)$$

where EVAt is the economic value added by the project in year t and the project has a life of n years and kc is the cost of capital.

According to Damodaran (2006), the cost of capital should be estimated based upon the market values of debt and equity in the firm, rather than book values. Thus, we will use as discount rate the WACC to keep in line with the DCF methodology.

According to Pruzhansky (2013), the main advantage of the EVA over DCF is: the former evaluates potential benefits and costs at each moment in time while the latter looks at the whole

lifetime of the project at once, and not at its individual stages. Formally, the EVA method is consistent with the principle of backward induction, whilst the DCF method, which takes a static perspective, is not.

However, the main disadvantage associated with this valuation method is the number of adjustments we need to make to compute the EVA.

In a survey of practices of firms that used economic value added, Weaver (2001) notes that firms make several adjustments to operating income and book capital in computing EVA, and that the typical EVA calculation involves 19 adjustments from a menu of between 9 and 34 adjustments. In particular, firms adjust book value of capital and operating income for goodwill, R&D and leases, before computing return on capital.

1.4 Multiples

In discounted cash flow valuation, the objective is to find the value of assets, given their cash flow, growth and risk characteristics. In relative valuation, the objective is to value assets, based upon how similar assets are currently priced in the market (Damodaran, 2002).

A valuation multiple is simply an expression of market value of a company relative to a key statistic (typically a ratio) that is assumed to relate to that value. To be meaningful, that statistic – whether earnings, cash flow or some other measure – should have a logical relationship to the market value observed (Mota, 2015).

There are two components to relative valuation. The first is that to value assets on a relative basis, prices have to be standardized, usually by converting prices into multiples of earnings, book values or sales. The second is to find similar firms, which is difficult to do since no two firms are identical and firms in the same business can still differ on risk, growth potential and cash flows (Damodaran, 2002).

According to Damodaran (2002), a valuation based upon a multiple and comparable firms can be completed with far fewer assumptions and far more quickly than a discounted cash flow valuation. Second, a relative valuation is simpler to understand and easier to present to clients and customers than a discounted cash flow valuation. Finally, a relative valuation is much more likely to reflect the current mood of the market, since it is an attempt to measure relative and not intrinsic value.

However, the strengths of relative valuation are also its weaknesses. First, the ease with which a relative valuation can be put together, pulling together a multiple and a group of comparable firms, can also result in inconsistent estimates of value where key variables such as risk, growth or cash flow potential are ignored. Second, the fact that multiples reflect the market mood also implies that using relative valuation to estimate the value of an asset can result in values that are too high, when the market is over valuing comparable firms, or too low, when it is under valuing these firms. Third, while there is scope for bias in any type of valuation, the lack of transparency regarding the underlying assumptions in relative valuations make them particularly vulnerable to manipulation (Damodaran, 2002).

As reported by Damodaran (2002), the multiples valuation process is based on four steps. The first step is to ensure that the multiple is defined consistently and that it is measured uniformly across the firms being compared. The second step is to be aware of the cross sectional distribution of the multiple, not only across firms in the sector being analyzed but also across the entire market. The third step is to analyze the multiple and understand not only what fundamentals determine the multiple but also how changes in these fundamentals translate into changes in the multiple. The final step is finding the right firms to use for comparison and controlling for differences that may persist across these firms.

The choice of multiples is an absolutely fundamental aspect, since the choice of these depends on the nature of the business and the industry in which the company is inserted. Fernandez (2019) classifys the most commonly used multiples into three main groups:

Most Commonly Used Multiples		
Multiples based on Capitalization	**Multiples based on the company´s value**	**Growth-referenced multiples**
PER	EV/EBITDA	PEG
P/CE	EV/Sales	EV/EG
P/S	EV/FCF	
P/LFCF		
P/BV		
Price to Customer		
Price to units		
Price to output		
Price to potential customer		

Table 2. Most commonly used Multiples. Pablo Fernandez

Multiples typically have broad dispersion, which is why valuations performed using multiples are highly debatable. However, multiples are useful in a second stage of the valuation: after performing the valuation using another method, a comparison with the multiples of comparable firms enables us to gage the valuation performed and identify differences between the firm valued and the firms it is compared with (Fernandez, 2019)

2. Industry Overview

In this section, we will present a macroeconomic outlook of global economy and pandemic developments until today, as well as the main trends in the sportswear industry based on World Bank Global Economic Prospects and a study from McKinsey & Company in partnership with the World Federation of Sporting Goods Industry.

2.1 Global Economy

Following a 3.5% contraction caused by COVID-19 pandemic in 2020, global economic activity has gained significant momentum as shown in the figure below. According to World Bank Global Economic Prospects, the world economy is expected to expand 5.6% in 2021, the fastest post-recession pace in 80 years.

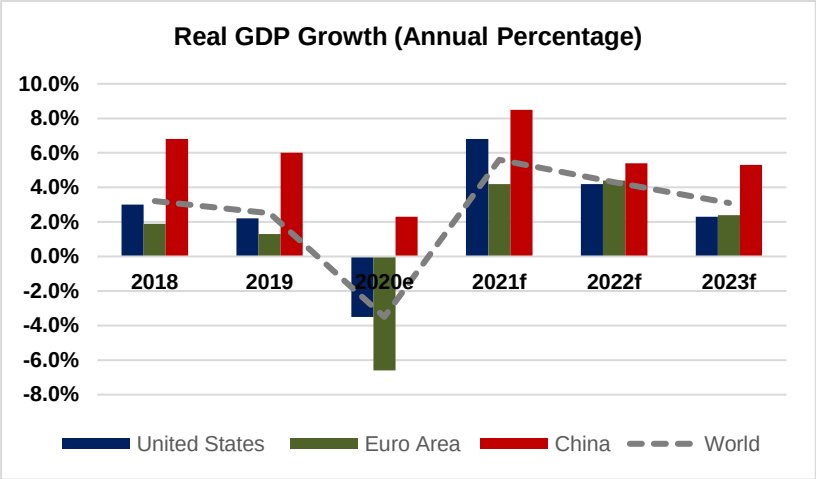

Figure 1. Real GDP Growth. World Bank

However, we observe that this recovery is uneven and largely reflects sharp rebounds in some major economies, such as United States and China.

The U.S. faster recovery in comparison to the rest of the world, is related to substantial fiscal support and high pace of vaccination of the country´s population. Regarding China, the only country to present a positive real GDP growth rate during 2020, we expect to continue its gradual recovery based on public investment and exports to domestic consumption. The Euro Area presents a slower recovery due to some inconsistencies in the vaccination and, stringent mobility restrictions made to prevent more transmissible variants.

Furthermore, in many emerging markets and developing economies (EMDEs), the increase in the number of COVID-19 cases, the obstacles to vaccination and a partial withdrawal of macroeconomic support are offsetting some of the benefits of strengthening external demand

and elevated commodity prices. This suggests an increase in global inflation by 1.4% in 2021 according to World Bank.

Therefore, we expect global output to be below pre-pandemic projections, as it remains subject to significant downside risks, which include the possibility of large COVID-19 waves in the context of new virus variants and financial stress amid high EMDE debt levels.

In order to control the pandemic at the global level, we will require more equitable vaccine distribution, especially for low-income countries. The COVAX Initiative may contribute to this aspect.

2.2 Pandemic Developments

Since COVID-19 started to spread, it has infected at least 160 million people and caused more than 3 million deaths. The figures below, show the number of cases (in thousands) since the beginning of the pandemic until May 2021 and the difference of vaccination between advanced economies and EMDEs.

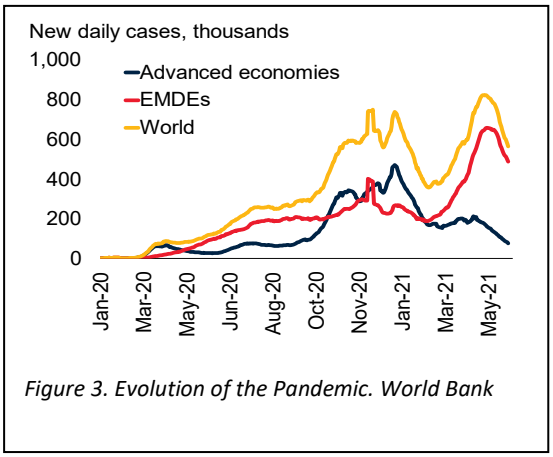

Figure 3. Evolution of the Pandemic. World Bank

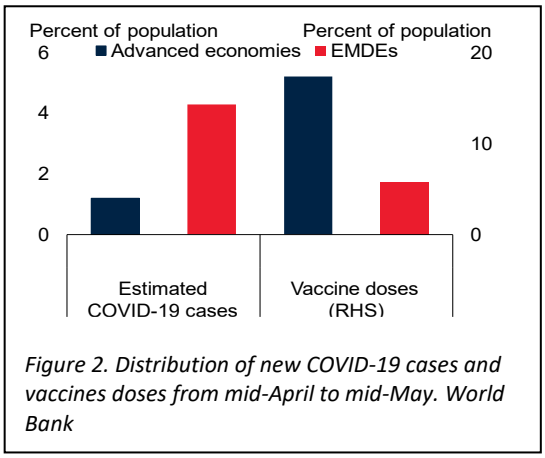

Figure 2. Distribution of new COVID-19 cases and vaccines doses from mid-April to mid-May. World Bank

In figure 2, we observe that emerging markets and developing economies typically present a higher number of cases for the period in analysis, especially for the two more recent months of 2021. This increase in the number of cases in EMDEs is related to the appearance of a new variant in India and its extension to some other large EMDEs such as Brazil.

As previously mentioned, there has been some discrepancy related to vaccination between Developed Economies and EMDES. Figure 3 shows that advanced economies that have administrated vaccines to a large part of their population, present a lower number of cases than EMDEs, which have only vaccinated a small part of their population.

2.3 Sportswear Industry

The sportswear industry is a highly competitive and mature market. In this section, we provide information about how the pandemic has affected this industry, and which trends are expected to stay for the future. This information is based on a survey from McKinsey & Company, in partnership with the World Federation of the Sporting Goods Industry (WFSGI).

2.3.1 2020 Overview

COVID-19 had a profound impact in the global sportswear industry as almost all companies presented weaker sales, except for the Chinese market.

The deterioration in economic conditions globally caused a lower consumer demand for sportswear products as a result of a rise in unemployment rates and diminished consumer confidence.

Moreover, companies experienced a disruption in both supply chains and distribution centres related to COVID-19 preventive measures, including store closures, reduced operating hours, social distance restrictions and changes in consumer behaviour.

Furthermore, the cancellation and postponement of sports seasons and sporting events in multiple countries are also related to a lower consumer demand and negatively affected companies' arrangements with key endorsers.

However, the sportswear industry showed some resilience in comparison to other markets as the pandemic accelerated concepts that were already expected to emerge for this industry including, digital commerce, rising demand for sustainable products and increasing participation in individual forms of exercise and sports intensified. Therefore, we believe that this market will present some opportunities for the future.

According to McKinsey & Company survey, despite the global sportswear market drop of 7.3% in 2020, this industry is expected to increase by 7.5% until 2024. The figure below shows the values for the global sportswear market from 2019 until 2024.

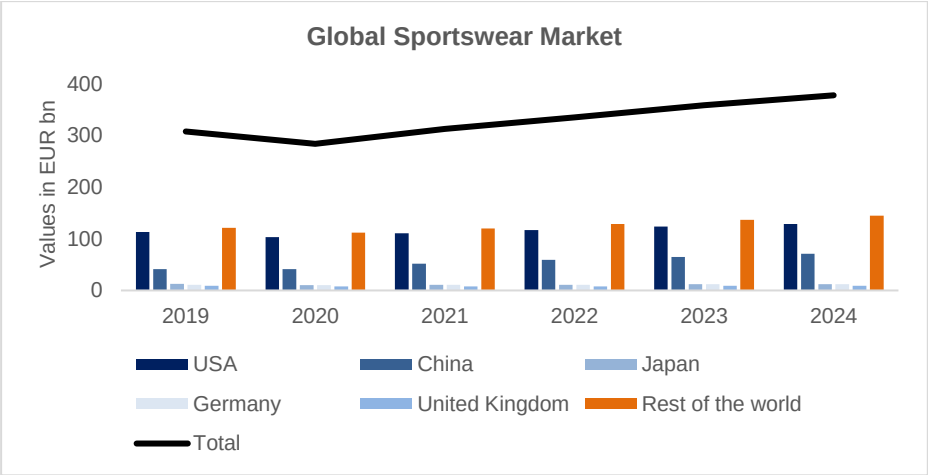

Figure 4. Global Sportswear Market. McKinsey & Company

2.3.2 Trends to shape in the sporting goods industry

According to that study, there are eight key themes set to shape the sporting goods industry in 2021 and beyond. These themes are described under three banners: Consumer Shifts, Digital Leap and Industry Disruption. Most of these trends were already emerging ahead the COVID-19, but the dramatic events of the last year have accelerated their introduction and strengthen their impact.

2.3.2.1 Consumer Shifts

Since the pandemic has started, we experienced changes related to consumers behaviour from the sportswear industry. In this section we present the main issues related to this topic.

2.3.2.1.1 Athleisure

Athleisure is a style of clothing that is comfortable and suitable for doing sports, but also fashionable and attractive enough to wear for other activities.

Even before COVID-19, the athleisure segment was growing fast. According to Euromonitor International, athletic apparel and footwear grew at 3.6% and 5.5%, respectively, between 2014 and 2019.

The increased time spent at home due to COVID-19 preventive measures has led to opportunities in this market. With most people locked down, we noticed that they preferred to use more practical and comfortable clothing instead of more formal work attire.

Moreover, with the possibility of remote work as a long-term option for many companies, we believe that the lines between sports, casual and lifestyle wear will become less distinct and thus, sports inspired clothes will be used to a broader range of occasions.

Moreover, the versality of athleisure clothes makes it particularly popular among women, who appreciate the convenience of not having to change clothes for different occasions, and we expect women will be key demand drivers in the following years.

Therefore, we believe that the rise in demand for this type of clothing will be an opportunity for many companies. On the other hand, the athleisure market will become more competitive, and companies will have to innovate in design and materials amid usability and comfort.

2.3.2.1.2 Physical Activity Gap

The benefits of exercise are well known and include lower blood pressure and risk of vascular disease, reduced incidence of cancer, and lower risks of diabetes. Moreover, there are also positive impacts on mental health.

Although the pandemic has increased people´s appetite for exercise, reflecting more awareness about the importance of remaining healthy, aggregate levels of physical activity have remained about even over the course of the pandemic, with people exercising more than usual and others exercising less.

The economic recession caused by the pandemic has pushed some households into lower income groups, which are more vulnerable to a reduction in physical activity as shown in the figure below.

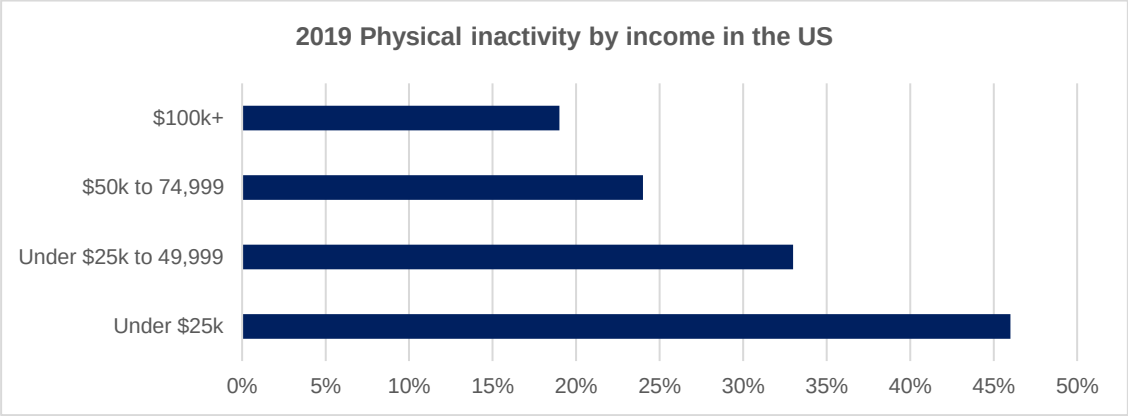

Figure 5. Physical Inactivity by Income in the U.S. (2019). McKinsey & Company

We observe that physical inactivity is significant higher in the U.S. lower income groups. According to this survey, during 2019, 46% of the U.S. lower income families showed physical inactivity against 19% of the U.S. higher income families.

U.S. low-income families are especially vulnerable to stay-at-home rules, as they tend to inhabit smaller spaces and have less access to online options, making it difficult to engage in physical

exercise. Furthermore, the effects of financial distress related to the pandemic, will increase the number of people in this group suggesting an increase in the percentage of physical inactivity. This situation is not linear only to the U.S. as the pandemic affected global population and thus, other countries face the same physical activity gap between higher and lower income families.

In order to reduce this physical gap, companies should consider a multistakeholder approach with governments for incentivization schemes and funding for sports and other physical pursuits.

2.3.2.1.3 Sustainability

Sustainability is one of the top concerns in the sporting goods industry, with companies facing higher pressure to ensure that their products, operations and supply chain relationships meet the highest possible standards, both in terms of climate change and labour rights.

According to McKinsey COVID-19 Apparel Survey, 67% of consumers consider the use of sustainable materials as an important factor when it comes to purchase decisions. Taking this into consideration, many sporting goods brands have put sustainability at the top of their business strategy, with the online market leading the way.

One of the key concerns related to this topic is in the companies´ supply chain as many still use intensive raw materials such as plastic and cotton in their production systems. Moreover, packaging is also a sensitive topic because some companies continue to use plastic bags to sale their products.

COVID-19 has accelerated the pace of change in terms of sustainability, with consumers drawing stronger connections between human actions and damage to natural and socioeconomic systems.

To satisfy consumer demand for sustainable products, the industry will need to invest in circular business models, both for fabric sourcing and product end of life.

2.3.2.2 Digital Leap

Nowadays, the concept of digital transformation is present in almost all industries. The sporting goods market is no exception as companies are trying to adapt to this new digital world. Thus, in this section we present the main trends related to this topic.

2.3.2.2.1 Digital Enabled Fitness and Exercise Communities

With large part of the world locked down, consumers have become more committed to home workout routines to maintain their fitness while staying safe from the virus. During this period, we experience a rise demand for digital solutions as shown in the figure below.

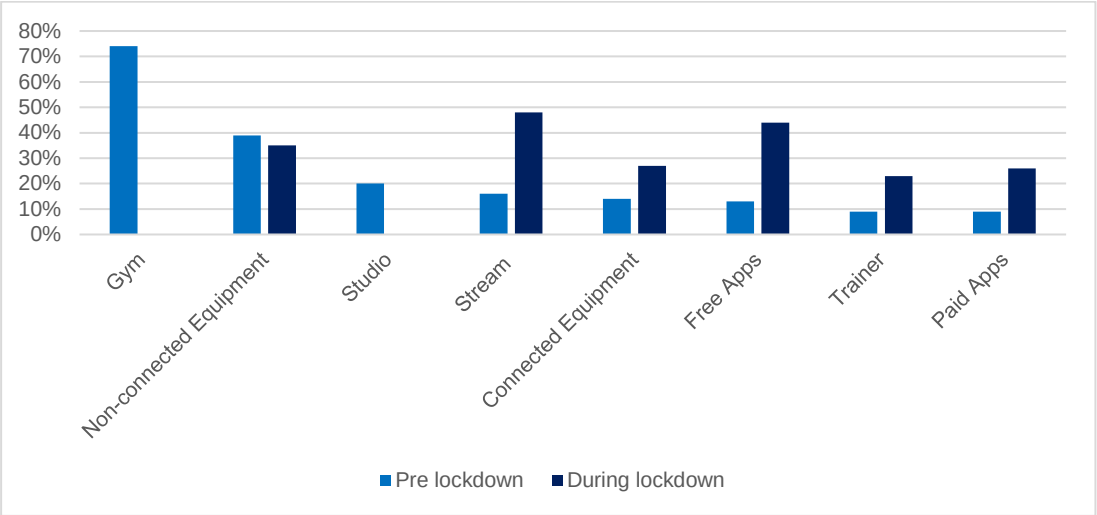

Figure 6. % Of respondents in each activity (members of U.S. gym chain). McKinsey & Company

We observe that digital solutions, including stream, connected equipment, free apps and paid apps experience a rise during lockdown, while activities such as gyms, studios and non-connected equipment saw a decrease due to COVID-19 preventive measures.

However, many digital offerings did not provide the same level of satisfaction to consumers as their pre-lockdown alternatives. According to this survey, just 46% of respondents said that were satisfied with their routines during lockdown, compared with 70% prior to 2020.

Looking forward, the consumer survey suggests that consumers will return to their gyms when they can. However, many will aim to a hybrid model between digital and traditional exercise. Moreover, with the appearance and spread of new variants during 2021 and subsequent periods of lock down, people will use these types of digital solutions.

2.3.2.2.2 Leap Forward in Online

During the pandemic, digital commerce has taken the centre stage, posting spectacular gains in market share and establishing itself as the heart of the shopping experience. We expect this trend to continue for 2021 and beyond as people enjoy this type of service, especially among the younger consumers. Figure 7 shows the global retail e-commerce sales since 2018 and its projections until 2024.

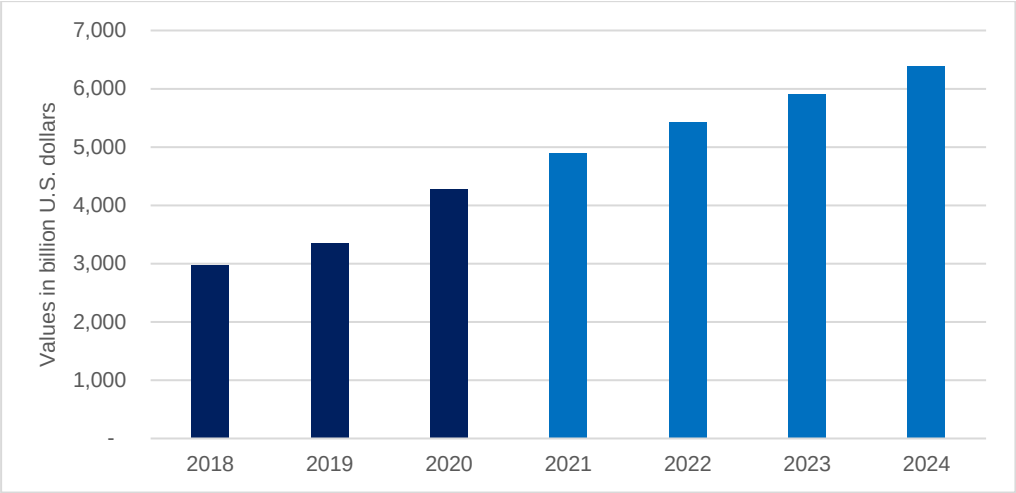

Figure 7. Retail e-commerce sales worldwide. Statista

We observe that the number of digital buyers increased significantly during 2020 and we expect to continue for the following years. According to Statista, e-commerce may represent 6.4 trillion U.S. dollars worldwide by 2024, reflecting the increasing participation of global population for this type of service.

2.3.2.2.3 Marketing Shift from Assets to Influencers

With sporting events cancelled, postponed or played in empty stadiums, and consumers spending more time online, sporting goods industry players are shifting funds to digital marketing.

Instead of the traditional marketing team kit sponsorship, branded adverts, licensed products, merchandising and naming rights, companies are working directly with individual athletes, who post their products through social media including, YouTube, Instagram, Facebook, Twitter, among others.

According to McKinsey and Company survey, during the first three months of the outbreak, the number of active monthly users on Instagram and YouTube rose by 40 percent and 50 percent respectively. Similarly, the number of Instagram TV posts and stories rose by 74% and 31% respectively, in the months following the outbreak.

Number of Instagram followers							
Football				Olympic Sports			
Football Players		Football teams		Professional Athletes		Associations	
Cristiano Ronaldo	240	Real Madrid	92	Usain Bolt	10	World Athletics	0.6
Lionel Messi	167	FC Barcelona	90	Roger Federer	8	ATP Tour	0.3
Neymar	142	Manchester United	37	Manny Pacaquio	6	World Boxing Association	1.9
James Rodríguez	46	PSG	31	Simone Biles	4	USA Gymnastics	0.8
Marcelo Vieira	46	FC Bayern	24	Michael Phelps	3	International Swimming League	0.1
Total	641	**Total**	274	**Total**	31	**Total**	3.7

Table 3. Number of athletes, clubs and associations Instagram followers. McKinsey & Company

The table indicates that individual athletes have a longer reach than many clubs and associations. Consequently, companies are establishing relationships with professional athletes who use their social media in order to build awareness, credibility and engagement with the company.

2.3.2.3 Industry Disruption

In this section we provide the main changes in the sporting goods industry related to supply chains and the retail market.

2.3.2.3.1 Retail Under Pressure

Even before the pandemic, physical retail was struggling, leading to strategic rethinks among major brands such as Nike and Adidas. In the figure below, we observe that both companies have been reducing their physical footprint over recent years (Figure 7).

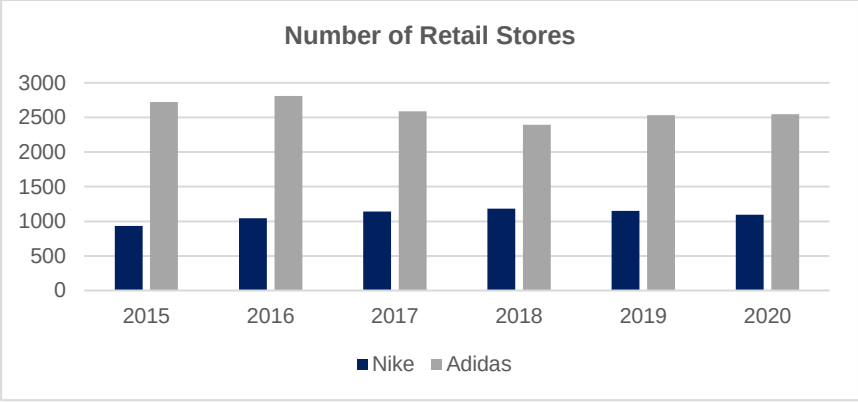

Figure 8. Number of retail stores Nike and Adidas. McKinsey & Company

Since COVID-19 physical retail has experienced additional challenges, including lockdowns, a loyalty shift among some consumers, who have felt empowered by digital to experiment with new offerings, and persistent health and safety concerns.

In the future, we believe that physical stores will not be able to compete sustainably without incorporating some element of digital experience. This may comprise operational

improvements to capture data, manage inventory and boost productivity, as well as customer-facing innovation such as mobile point of sale, personalized recommendations, and in-store fulfilment.

With increased COVID-19 related barriers to visiting retail stores, consumers expect to find products available if they make the trip. Being able to reserve the crucial product online ahead of time will be an added benefit and might lead to unplanned in-store purchases.

In addition to omnichannel integration, sporting goods companies will need to offer clear and appealing propositions to attract consumers to stores. Elements they may focus on include brand equity and the consumer experience, online fulfilment, category expertise, value offerings, immersive showrooms, and streamlined service offerings.

2.3.2.3.2 Supply Chains

Even before the pandemic, sporting goods industry supply chains were adapting to new business models and ways of working. The previous emphasis on the wholesale-driven product cycles was being eroded by a more agile model focused on direct-to-consumer demand (DTC) trends in both retail and e-commerce. This translated into a need for shorter delivery times and higher levels of responsiveness to market trends.

With COVID-19 and subsequent increase in digital demand, companies will need to respond even faster and to be more flexible. Consequently, many firms will use a direct-to-consumer strategy as this model requires companies to more often own inventory, which means firms are naturally more focused on aligning production with demand.

In some cases, fashion goods companies have explored near-shoring and re-shoring options in order to reduce lead times even further and mitigate uncertainty trade rules.

Overall and as stated by Colin Browne (COO of Under Armour): "*Supply chain management will move from a single speed model towards a multi-speed-model with better use of data and analytics that will drive shorter lead times, improved service and reduced inventories.*"

2.3.3 The future of the Sporting Goods Industry

The impacts of the pandemic in the sportswear industry have been temporary, however we expect that some will continue and thus, create a new imperative on how companies should engage with their customers and run their operations, creating new opportunities for the future of the sporting goods industry.

Firstly, we believe that the athleisure and women´s segment will continue to grow for the next years as well as, other sports categories, including yoga, running and biking, reflecting a growing appetite for individual and outdoor sports. Moreover, we expect that China will also offer opportunities for this market due to its increasing representativeness in global economy. Therefore, companies with strong presence in these growing segments sport categories and region, will be able to increase their market share.

Secondly, the rising uncertainty caused by COVID-19 has changed companies to work a more agile operation model. We believe that firms will require digital expertise, faster development cycles, and seamless omnichannel services, in order to embrace a Direct-to-consumer proposition. This requires strong supply chain relationships as well as agility in planning and budgeting.

Thirdly, the rise of digital and e-commerce solutions will make companies to find ways to form or link into digital communities and connect them to direct sales channels. We believe that firms that combine the best of digital and physical and create standout retail experiences are likely to perform best. Moreover, firms will put more emphasis on individual athletes and digital channels, reflecting the rise of digital marketing.

Lastly, companies should strive to reflect consumers´ priorities as far as possible. Nowadays, taking care in respect of the environment and labour rights has become an important factor when it comes to purchase decisions. Firms that prioritize sustainable sourcing, either through materials recycled from other industries or recycled sporting goods materials are likely to perform better.

3. Company Overview

In this section we provide an overview of Nike, Inc., including its history, business activity and products, distribution, manufacturing, competition and human resources. We also perform a SWOT and a Financial Statement analysis.

3.1 History

Nike history began in 1962, when Phil Knight had just graduated from Stanford University. He was a distance runner back in university and in one of his business classes he had written a paper proposing the following idea: Phil had seen how Japanese cameras (Nikon) had replaced the dominant German cameras (Canon) in the American market, and he wondered whether Japanese shoes could do the same to Puma and Adidas, which were quite popular at that time.

In 1962 he flew over to Japan and during his trip he found out a store that caught his attention because the quality of its shoes for that time. The store belonged to a company called Onitsuka Tiger, and Phil enjoyed their shoes so much that he presented himself as an American shoe distributor and arranged a meeting with the company´s founder. The owners accepted his offer, and he became the exclusive distributor for Onitsuka Tiger in the U.S.

In 1963 he received his first shipment of twelve pairs of Tiger shoes, and he started selling them out of the back of his car at every running track he could drive to. Obviously, this strategy was not scalable, so he went to his former coach at the University of Oregon, Bill Bowerman to see if he wanted to partner up. Bill was one of the most famous coaches in America at that time as he had trained multiple Olympic athletes.

In January 1964 Bill and Phil incorporated Blue Ribbon Sports, each investing $500 into it. The shipment came through in April 1964 and thanks to Bill´s connections, it was sold out by July. In their first year, Blue Ribbon Sports sold nearly $8,000 (1,300 pairs at $6.15 each) worth of shoes and with that money, Phil started hiring salesman for his company.

In 1965 their revenue had increased to $20,000 and so, they decided to open their very own store in Santa Monica. While Phil was responsible for running the business, the actual innovation was coming from Bill as he was the first person to bring jogging to America. In 1966 he wrote a book about it that sold over a million copies, and of course his company was among the first to start marketing the Tiger Shoes for jogging.

Bowerman was all about innovation and with every new shipment from Onitsuka, he would cut open a few shoes to see how they were made, and he would always try to improve them, by for example adding to the cushion or using more lightweight materials.

He constantly sent his notes to Japan requesting changes and was effectively designing Onitsuka´s shoes for them. It was one of Bill´s design that catapulted Blue Ribbon Sports into the mainstream: The Cortez, as he called it, became one of the best-selling shoes in 1968, undoubtedly thanks to the 1968 Olympics, held in Mexico. Thanks to the Cortez, Blue Ribbon Sports sold $300,000 worth of shoes in 1969.

However, the Cortez was so successful that they could not keep up with the demand. Every new shipment that they received sold out faster than the one before, but Onitsuka kept sending them at the same pace. What Onitsuka were doing was satisfying their local demand in Japan first and then sending whatever was left to America.

Phil and Bill knew that to expand they would have to evolve beyond being just a simple distributor. They realized that they could have their own brand and started to prepare for it even before his contract with Onitsuka only ended in 1972.

In 1971 Phil started working on the branding. His first employees suggested calling the brand Nike, inspired in the Greek goddess of victory. Then he needed a logo, so he went to a nearby university, where he found out a graphic design student that came up with the famous swoosh from nowadays.

This time, instead of locking himself into exclusive agreements, Phil established a network of subcontractors across Japan. With production under his control, he started to importing shoes from his Japanese subcontractors even before his contract had expired, in 1971.

From then on, the story of Nike became one of growth. They became the largest sportswear company in America in 1989 on the back of brilliant marketing like the “Just Do It” campaign and by signing rookie athletes that would eventually become famous across the world. Currently, Nike is the largest seller of athletic footwear and apparel in the world.

3.2 Business Activity and Products

Nike´s principal business activity is the design, development and selling of athletic footwear, apparel, equipment, accessories and services.

Athletic footwear and sports apparel are designed for specific athletic use, although a large percentage of products are worn for casual or leisure purposes. Equipment and accessories under the Nike Brand name include products such as, bags, socks, sport balls, eyewear, timepieces, digital devices, bats, gloves, protective equipment and other equipment designed for sports activities. The graphic below shows Nike 2021 revenues disaggregated by major product line.

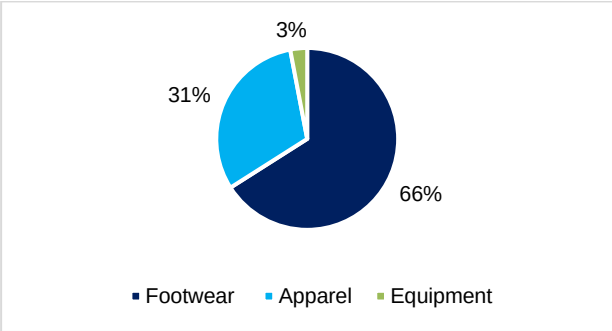

Figure 9. Nike´s Revenues disaggregated by major product line

Nike Brand products are divided into the following six key categories: Running, Nike Basketball, the Jordan Brand, Football (Soccer), Training and Sportswear. In addition, the company develops products designed for kids, as well as for other athletic and recreational uses such as American football, baseball, cricket, golf, lacrosse, skateboarding, tennis, volleyball, walking, wrestling and other outdoor activities.

Sportswear, the Jordan Brand and Running were the top-selling footwear categories during 2021, while Sportswear, Training, Football (Soccer) and Running were top-selling apparel categories.

Note that the Jordan Brand designs, distributes and licenses athletic and casual footwear, apparel and accessories predominantly focused on basketball using the Jumpman trademark.

Moreover, Nike has its own subsidiary brand, Converse, which designs, distributes and licenses casual sneakers, apparel and accessories under the Converse, Chuck Taylor, All Star, One Star, Star Chevron and Jack Purcell trademarks. During 2021, this brand accounted for approximately 5% of Nike, Inc., revenues.

3.3 Distribution

The firm sell its products directly to consumers through Nike-owned retail stores and digital platforms (referred as "Nike Direct" operations) and to retail accounts and a mix of independent distributors, licensees and sales representatives in virtually all countries around the world.

During 2021, 61% of Nike revenues came from the wholesale business while the remaining 39% came from Nike direct operations. The table below shows Nike, Inc., retail stores both inside and outside the U.S.

Retail Stores	US	International
Nike Brand factory stores	204	618
Nike Brand in-line stores (including employee-only stores)	30	46
Converse stores (including factory stores)	91	59
Total	**325**	**723**

Table 4. Nike Retail Stores inside and outside the U.S. Nike Annual Report

Moreover, the company´s operating segments for the Nike Brand are divided according to the following regions: North America; Europe, Middle East & Africa (EMEA); Greater China; and Asia Pacific & Latin America (APLA). The North America is still the region with higher percentage of revenues although Greater China has been increasing over the years.

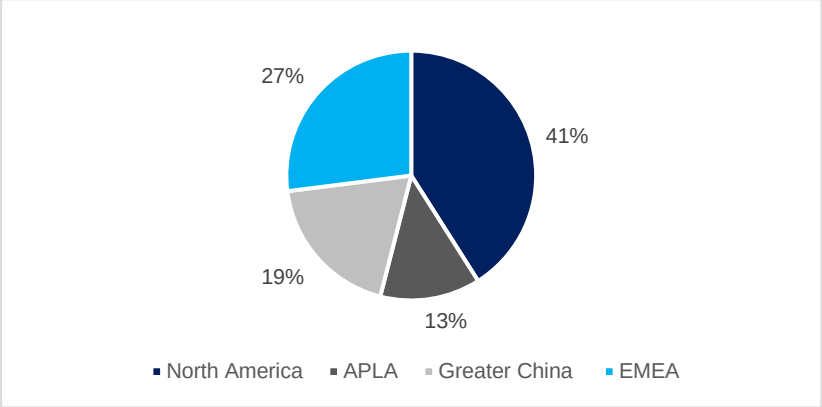

Figure 10. Nike´s Revenues disaggregated by operating segment. Nike Annual Report

In all regions, revenues increased in comparison to the last year, especially North America and Greater China regions where revenues increased by 19% compared to 2020. Moreover, all regions presented an increase in Nike Direct operations driven by a strong digital sales growth.

3.4 Manufacturing

Most of the company´s products are manufactured by independent contractors outside the United States, except equipment products that are produced both in the United States and abroad. The firm´s major production of the apparel and footwear segments comes from countries such as Vietnam, China, Indonesia and Cambodia.

During 2021 fiscal year Nike was supplied by 334 apparel factories located in 33 countries, with the largest single apparel factory accounting for nearly 8% of Nike Brand apparel production. Contract factories in Vietnam, China and Cambodia produced approximately 30%, 19% and 12% of total Nike brand apparel, respectively.

Regarding the footwear segment, there were 191 factories located in 14 countries, with the largest single footwear factory accounting for nearly 9% of total Nike Brand footwear production. Contract factories in Vietnam, China and Indonesia manufactured approximately 51%, 24% and 21% of Nike Brand footwear, respectively.

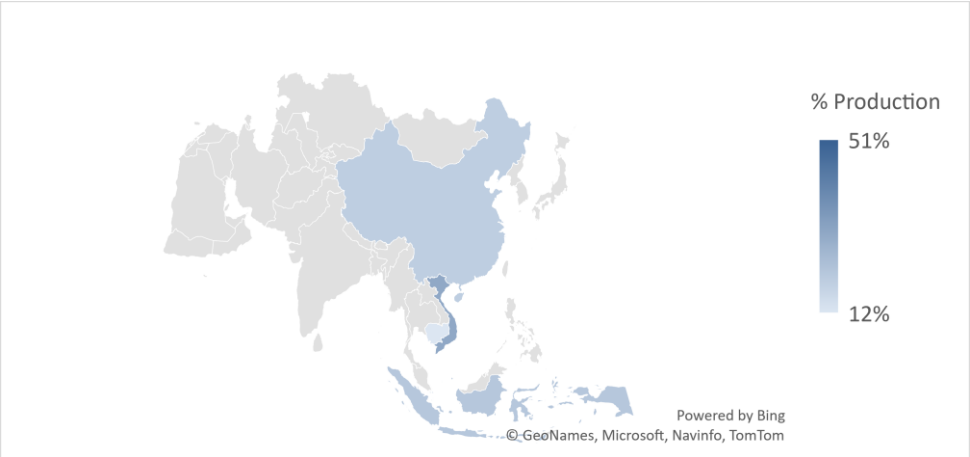

Figure 11. Countries production for Nike Brand Apparel and Footwear Segment. Nike Annual Report

The materials used in footwear products are natural and synthetic rubber, plastic components, foam cushioning materials, natural and synthetic leather, nylon, among others. On the other hand, the materials used for the apparel products are essentially natural and synthetic fabrics, yarns and threads.

3.5 Competition

The athletic footwear, apparel and equipment industry is highly competitive on a worldwide basis. Nike competes internationally with a significant number of athletic and leisure footwear companies, athletic and leisure companies, sports equipment companies and large companies having diversified lines of athletic and leisure apparel and equipment, including Adidas, Anta, Asics, Li Ning, Lululemon Athletica, Puma, Under Armour and V.F. Corporation, among others.

The intense competition and the rapid changes in the technology and consumer preferences in the markets for athletic and leisure footwear and apparel and athletic equipment, constitute one of the firm's significant risk factors in its operations.

Over the years Nike has been the largest seller of athletic footwear and apparel in the world as shown in the figure below.

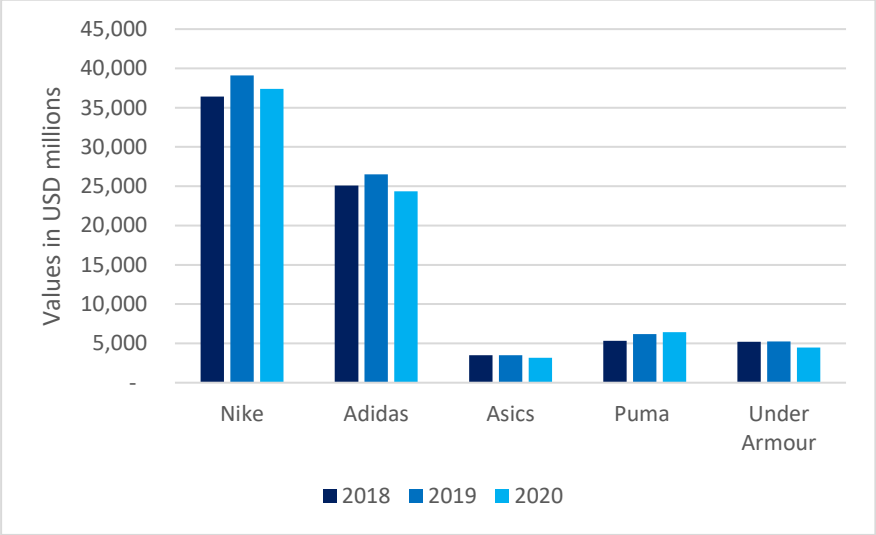

Figure 12. Revenues by Company. Own Estimates

Moreover, we observe that all companies from the sportswear industry decreased their revenues for 2020 due to the pandemic negative impact in global economy. Note that Adidas, Asics and Puma values have been converted to USD in order to compare them with Nike home currency, which is the USD.

3.6 Human Resources

During fiscal 2021 Nike had approximately 73,300 employees worldwide, including retail and part-time employees. Diversity, equity and inclusion is a strategic priority for Nike in order to have an increasingly diverse team and culture.

Nike announced certain targets for the company to work toward by fiscal 2025, including increasing participation of women in the firm's global corporate workforce and leadership positions, as well as increasing representation of U.S. racial and ethnic minorities in the U.S. corporate workforce and at the director level and above.

Furthermore, the company gives access to training programs and career development opportunities, including trainings on Nike´s values, history and business, trainings on developing leadership skills at all levels, tools and resources for managers and qualified tuition reimbursement opportunities.

The table below shows Nike´s executive officers for fiscal 2021:

Name	Position
Mark G. Parker	Executive Chairman
John J. Donahoe II	President and Chief Executive Officer
Andrew Campion	Chief Operating Officer
Matthew Friend	Executive Vice President and Chief Financial Officer
Hilary K. Krane	Executive Vice President, Chief Administrative Officer and General Counsel
Monique S. Matheson	Executive Vice President, Global Human Resources
Heidi O´Neill	President of Consumer and Marketplace

Table 5. Nike´s Board of Directors. Nike Annual Report

All Nike´s Board of directors are people with high experience and are at the company for a long period of time. John Donahoe, ex-CEO of eBay has been director at Nike since 2014 and became the company´s CEO since 2020 in order to bring expertise in digital commerce, technology and global strategy.

3.7 SWOT

The SWOT analysis allows us to identify the firm´s internal factors such as strengths and weaknesses as well as external factors such as opportunities and threats. Thus, this technique is very useful to study the company internal capabilities and the environment where the firm competes in. The following table shows Nike SWOT analysis.

SWOT	
Strengths	**Weaknesses**
Dominant market position built on a strong brand portfolio Focus on R&D activities Multi-Channel approach	Dependence on independent contract manufacturers Dependence on the U.S. market
Opportunities	**Threats**
Growing global footwear market Emerging markets Growing digital commerce	Intense competition Increase in Counterfeit products Currency exchange rate fluctuations

Table 6. Nike SWOT Analysis. Own estimates

3.7.1 Strengths

According to Statista, Nike holds the highest percentage of the athletic footwear market share, which is, 27.4%. Furthermore, Nike was ranked as 13th top 100 world´s most valuable brands in 2020 released by Forbes, with a brand value of $39.1 bn. The company dominant market position is built on a wide variety of high quality and innovative products under strong brands like NIKE, Jordan and Converse which allows them to attain competitive advantage over its peers.

Moreover, Nike´s continuous focus on R&D activities has been its key driver to maintain leadership position in the athletic footwear and apparel market. By emphasizing on technical innovation in the design and manufacturing process of footwear, apparel, and athletic equipment, NIKE focuses on producing products that help reduce injury, enhance athletic performance and maximize comfort, while reducing waste. The company´s strong focus on R&D allows Nike to renew its product line at regular intervals, which boosts customer loyalty and revenue growth.

In addition, the firms multi-channel approach increases the company´s reach and enables it to cater to a wide customer base. This, in turn, helps NIKE to enhance its market presence.

3.7.2 Weaknesses

On the other hand, Nike depends on independent contract manufacturers outside the US to provide fabrics and to produce its products, and therefore, has little control over the quality of products. Consequently, any failure on the part of manufacturers to achieve and maintain high manufacturing standards could result in manufacturing errors resulting in product recalls or withdrawals, delays or interruptions in production, cost overruns or other problems that could seriously harm the company's business. This, in turn, could have an adverse effect on customer retention and brand loyalty.

Moreover, for fiscal 2021 Nike Brand and Converse sales in the U.S. accounted for approximately 39% of total revenues, which demonstrates the company´s high dependence on this region. If American tax or legal policies were to change, in any way affecting Nike's ability to sell on the US market, that would significantly hurt the sportswear giant's profits.

3.7.3 Opportunities

The global footwear market has increased in recent years. According to Allied Market Research, the global footwear market size was valued at $365.5 billion in 2020 and is estimated to reach $530.3 billion by 2027 with a CAGR of 5.5% from 2020 to 2027. The company, through its strong brand portfolio and wide geographic presence, is well positioned to capitalize on the favourable trends in the global footwear market.

Furthermore, the Asia-Pacific region will provide more business opportunities for footwear market in coming years. According to Allied Market Research, China and India are emerging markets in this segment. China is expected to grow with a CAGR of 8.0% while India is expected to exhibit 7.3% growth rate during the forecast period (2020-2027). From all the geographic operating segments of Nike, Greater China was the only one that presented an increase in revenues during 2020 and, one of the regions with the highest increase in revenues for 2021.

Moreover, digital commerce has been increasing over the years, especially during the pandemic due to COVID-19 preventive measures. According to Nike Annual Report, digital commerce sales were $9.1 billion for fiscal 2021 compared to $5.5 billion for fiscal 2020. On a currency-neutral basis Nike Direct revenues increased 30% for fiscal 2021, driven by strong digital commerce sales growth of 60%.

3.7.4 Threats

As previously mentioned, one of the companies' major threats is the competition Nike faces in. The athletic footwear, apparel and equipment industry is highly competitive both in the United States and worldwide. Thus, intense competition along with rapid changes in technology and consumer preferences in the markets for athletic and leisure footwear and apparel, and athletic equipment could put pressure on the price of products and therefore affect the company's margins.

Furthermore, the spread of counterfeit goods has become global and the range of goods subject to infringement has increased significantly. Some of the major factors that led to an increased trade in counterfeit products include growing internet usage, extension of international supply chains and more recently, the global economic downturn that led customers to look for low-cost alternatives. As a result, companies such as NIKE, which offer branded products, are likely to suffer more damage from counterfeit goods. Besides revenue losses, counterfeits also affect the company's brand because of low product quality and reduce consumer confidence in branded products, thereby affecting sales.

Finally, most of the company's products are manufactured and sold outside of the US. As a result, NIKE conducts purchase and sale transactions in various currencies, which exposes it to fluctuations in foreign currency exchange rates globally. In addition, the company's international revenues and expenses are derived from sales and operations in foreign currencies, and these revenues and expenses could be affected by currency fluctuations. The weakening of foreign currencies relative to the US Dollar adversely affects the US Dollar value of the company's foreign currency-denominated sales and earnings.

Therefore, currency exchange rate fluctuations could have material adverse effect on the financial condition of the company.

3.8 Financial Statement Analysis

Before proceeding to the valuation of Nike, Inc., we will perform a financial statement analysis. This analysis, either helps investors to understand the company financial situation before making any investment decision, as it improves managers to assess the success of their own firm and compare it to the performance of competitors.

According to Berk & DeMarzo (2014), investors often use accounting statements to evaluate a firm in one of two ways: First, to compare the firm itself by analysing how the firm has changed over time, and second, to compare the firm to other similar firms using a common set of financial ratios.

Therefore, in this section we will apply the most used ratios and compare it to Nike´s main competitor, Adidas AG. This analysis is divided into four groups: profitability (firm´s ability to generate profit), liquidity (firm´s ability to pay its short-term obligations), solvency (firm´s ability to pay its long-term obligations) and growth (speed at which company financials are growing).

Note that we computed each of the ratios for the historic years of our valuation (2018-2021). As Adidas ends its fiscal year at a different date of Nike, that is, at the end of December of each year, we have computed their ratios only until 2020.

3.8.1 Profitability Analysis

Profitability Analysis	Nike				Average	Adidas			Average
	2018	2019	2020	2021		2018	2019	2020	
EBIT Margin (%)	12%	12%	8%	16%	12%	11%	11%	4%	9%
ROA	9%	17%	9%	16%	13%	11%	10%	3%	8%
ROIC	18%	36%	19%	40%	28%	27%	21%	6%	18%
ROE	20%	45%	32%	45%	35%	27%	28%	7%	20%

Table 7. Profitability Analysis. Own estimates

EBIT margin, which is equal to EBIT over Revenues, represents how much a company receives before interest and taxes for each dollar of sales. As we can see, over the last four years, Nike´s EBIT margin was on average 12%, meaning that from every dollar achieved from sale, the company receives 12 cents in operating return. We observe that after an abnormal year like 2020, Nike was able to recover its EBIT margin to 16%, even higher than 2018 and 2019. Compared to Adidas, we can observe that Nike presents a higher operating margin and was able to recover from the negative impact related to the pandemic.

Another common measure of profitability is return on assets (ROA), which we compute as net income plus interest expense, divided by the book value of assets. In this ratio, we include interest expense in the numerator because the assets in the denominator have been funded by both debt and equity investors. The data indicates us that for 2021 Nike was able to recover this ratio to a similar level of 2019. On average, we can say that 13% of the assets are generated into profits. When compared to Adidas, Nike shows a higher efficiency on its asset´s management, except for 2018.

The return on invested capital (ROIC), measures the after-tax profit generated by the business itself, excluding any interest expenses, and compares it to the capital raised from equity and debt holders that has already been deployed. During the last four years, we can see that Nike presented some different values due to changes in its interest expenses. Despite the pandemic, Nike produced a much higher profitability related to this ratio when compared to Adidas for 2020. Moreover, the company was able to increase its return on invested capital for 2021.

The final ratio of the profitability analysis is the return on equity (ROE), which measures the return the company has earned in its past investments. During the four years, we can see that Nike increased its ROE in 2019 from 20% to 45%, dropped to 32% in 2020, and increased again to 45% for 2021. Thus, on average, 35% of the shareholder´s equity is generated into Net Income. Compared to Adidas, Nike presented a higher ROE for the period in analysis, except for 2018. However, when computing return on equity, we must go into a further analysis as a higher ROE does not always indicate a good signal to investors and managers. An increasing ROE could be either caused by increasing profitability or increasing debt. Therefore, we will use the Dupont Identity in order to consider these effects.

3.8.1.1 The DuPont Identity

The DuPont Identity, expresses the ROE in terms of the firm´s profitability, asset efficiency and leverage as follows:

$$ROE = \left(\frac{Net\ Income}{Sales}\right) \times \left(\frac{Sales}{Total\ Assets}\right) \times \left(\frac{Total\ Assets}{BV\ of\ Equity}\right) \quad (15)$$

The first term in this equation is the firm´s net profit margin, which measures its overall profitability. The second term is the firm´s asset turnover, which measures how efficiently the firm is utilizing its assets to generate sales. Together, these terms determine the firm´s return on assets. We compute ROE by multiplying by a measure of leverage called the equity multiplier, which indicates the value of assets held per dollar of shareholder equity. The greater

the firm´s reliance on debt financing, the higher the equity multiplier will be (Berk & DeMarzo, 2014).

In the following table we can see the results obtain from the decomposition of the ROE using the DuPont Identity.

DuPont Identity	Nike				Adidas		
	2018	2019	2020	2021	2018	2019	2020
Net income margin	5%	10%	7%	13%	8%	8%	2%
Asset Turnover	1.62	1.65	1.19	1.18	1.40	1.14	0.94
Equity Multiplier	2.30	2.62	3.89	2.96	2.45	2.93	3.15
ROE	**20%**	**45%**	**32%**	**45%**	**27%**	**28%**	**7%**

Table 8. The DuPont Identity. Own estimates

This table indicates us that the increase of ROE for 2019 can be attributed to the increase of the net income margin, meaning a company´s stronger ability to generate profits. However, when we look at 2020, we can see that the value for ROE can be mainly attributed to the equity multiplier, suggesting that the company has increased its debt level in response to the uncertainty related to the coronavirus. For 2021, and similar to 2019, the increase in this ratio comes from the increase in the firm´s net income margin.

When compared to Adidas, the results demonstrate us that for 2018, this company presented better results while in the other two years, Nike was superior. For 2020, the coronavirus had a negative impact in both company´s profits and an increase in their debt levels as we can see through the upturn from the equity multiplier.

3.8.2 Liquidity Analysis

Liquidity Analysis	Nike				Average	Adidas			Average
	2018	2019	2020	2021		2018	2019	2020	
Current Ratio	2.51	2.10	2.48	2.72	2.45	1.44	1.25	1.38	1.35
Quick Ratio	1.45	1.14	1.39	1.85	1.46	0.74	0.59	0.67	0.67
Cash Ratio	0.70	0.57	1.01	1.02	0.83	0.38	0.25	0.45	0.36

Table 9. Liquidity Analysis. Own estimates

In order to assess whether the firm has sufficient working capital to meet its short-term obligations, analysts often compare a firm´s current assets with its current liabilities. The ratio that expresses this relation is called current ratio and its benchmark value is 2. However, this value will depend from industry to industry and we should always compare to the other players of the same sector.

The data indicates us that during the last four years, Nike´s current ratio was always above 2 meaning that the company was able to repay its short-term obligations and does not face any

liquidity problems. However, the reduced consumer demand for Nike products and cancellation or postponement of orders caused by the coronavirus pandemic, led to an increase in inventory levels, and consequently, an increase in the current ratio.

Comparing to Adidas, this company presented a ratio lower than the benchmark, still it was able to meet its short-term obligations as the ratio for the three years was always above 1.

A more stringent test of the firm´s liquidity is the quick ratio, which compares only cash and "near cash" assets, such as short-term investments and accounts receivable, to current liabilities. This ratio gives a better understanding of the company´s liquidity as it excludes inventory. A higher level of inventories may be an indicator of the company having difficulty in selling its products and, consequently, taking longer time to convert them into cash.

The table shows us that the difference between current ratio and quick ratio is significant, which suggests that inventories have a considerable impact in Nike´s balance sheet. However, this ratio was higher than 1 meaning that the company can repay its current liabilities if we only consider cash and "near cash" assets. When we compare to Adidas, we can see that the quick ratio was below 1 suggesting that the company could have some problems to meet its short-term obligations.

The final and most stringent ratio of this analysis is the cash ratio, which is equal to cash over current liabilities. Nike´s cash ratio for 2020 is near 1 which is a good indicator if we compare to Adidas that was only 0.45.

All of these liquidity ratios are limited in that they only consider the firm's current assets. If the firm is able to generate significant cash quickly from its ongoing activities, it might be highly liquid even if these ratios are poor (Berk, J., & DeMarzo, P., 2014).

3.8.3 Solvency Analysis

Solvency Analysis	Nike				Average	Adidas			Average
	2018	2019	2020	2021		2018	2019	2020	
D/E Ratio	1.30	1.62	2.89	1.96	1.94	1.45	1.93	2.15	1.84
Interest Coverage	37.0	97.4	13.7	21.95	42.51	50.38	16.02	3.68	23.36

Table 10. Solvency Analysis. Own estimates

The Debt-to-equity ratio is a common ratio used to assess a firm´s leverage. We compute this ratio by dividing the total amount of short and long-term debt by the total shareholder´s equity. Over the last three years, this ratio has been increasing, indicating a higher percentage of debt

in the company´s capital structure. Due to the uncertainty of the pandemic, Nike decided to issue $6 billion in senior unsecured notes, suspend temporarily their share repurchase program and, enter in a new credit line facility agreement, which provides for an additional $2 billion of borrowings. However, we observe that there was a decrease for 2021 due to a significant increase in the firm shareholders´ equity.

Comparing to Adidas, the table indicates us that its debt levels have also increased during the last three years, specially in 2020 as an answer to the appearance of coronavirus that negatively affected global economy. Furthermore, we can observe that these results are coherent with the larger financial effect indicated in the DuPont Identity when we computed the equity multiplier.

Another leverage ratio used by analysts, is the interest coverage which calculates operating income (EBIT) over interest expenses. This ratio indicates us the firm´s ability to repay its interest expenses.

As a benchmark, creditors often look for an EBIT/Interest coverage ratio in excess of 5* for high-quality borrowers. When EBIT/Interest falls below 1.5, lenders may begin to question a company's ability to repay its debts (Berk and DeMarzo, 2014). The table shows us that both companies presented good results related to this ratio and consequently, easily meet its interest expenses.

3.8.4 Growth Analysis

Growth Analysis		
CAGR (2018-2020)	**Nike**	**Adidas**
Sales	1%	-5%
EBIT	-16%	-44%
EBT	-18%	-51%
Net Income	15%	-49%
Assets	18%	16%
Equity	-9%	3%
Liabilities	35%	25%

Table 11. Growth Analysis (2018-2020). Own estimates

Despite the decrease of revenues caused by lower demand for Nike products and close of retail stores for a long period of time due to COVID-19, Nike compound annual growth rate (2018-2020) was still positive (1%), suggesting that the company was able to increase its revenues during the last three years. However, when we consider the company´s operating and financial expenses we observe that the increase of revenues was insufficient to cover these costs as the compound annual growth rate for EBIT and EBT were negative, 16% and 18% respectively.

Moreover, the only reason that net income CAGR is positive, is because the 2018 income tax negative impact related to the enactment of the U.S. tax cuts and jobs act.

Comparing to Adidas we notice a similar situation as all income statement items suffered a significant negative impact related to the COVID-19 preventive measures.

Regarding balance sheet items, both companies follow nearly the same pattern as the CAGR for assets and liabilities increased. The cancellation and postponement of orders and reduced consumer demand related to the pandemic led to an increase in inventories and cash items and a decrease in accounts receivables. Consequently, the CAGR for the assets of both companies increased. In addition, Nike and Adidas issued new levels of debt in order to face the uncertainty about the duration and impact of coronavirus in global economy.

Overall, despite 2020 being an exceptional year, both companies are recovering their revenues and coming back to their normal inventory levels and are a stable investment for the future due to their major reputation in the sportswear industry.

Nike CAGR	2018-2020	2018-2021
Sales	1%	7%
EBIT	-16%	16%
EBT	-18%	15%
Net Income	15%	44%
Assets	18%	19%
Equity	-9%	9%
Liabilities	35%	25%

Table 12. Nike Growth Analysis (2018-2020) vs Nike Growth Analysis (2018-2021). Own estimates

The outstanding results of Nike for 2021 show that the company is recovering at a high pace and quickly adapting to the effects related to the pandemic, as demonstrated by the results from the above table. With $44.5bn of revenues for fiscal 2021, which explain the 7% CAGR, Nike obtained its highest number since its foundation.

4. Valuation

In this section we perform the main topic of this master project, which is the valuation of Nike, Inc. Thus, we present the main assumptions used to compute Nike, Inc. target share price for the DCF-FCFF approach and the multiples method.

4.1 Valuation Assumptions

COVID-19 has run amok in the balance sheets and profit and loss accounts of almost all companies: their supply chain is deteriorated, inventories are out of balance, there are production stoppages or delays, it is difficult to sell or collect, etc. As this is a common issue for all companies, we will not take what happened in 2020 as a basis for this valuation. Thus, the results of 2020 will be treated as an abnormal circumstance and will hardly weigh on the assessment.

4.1.1 Income Statement Items

As Nike advances its digital transformation and consolidates its direct-to-consumer approach in the sportswear industry, we believe that this company will continue to fuel long term sustainable and profitable growth. Therefore, we assume that the firm will increase its revenues according to the rate of the economy and, maintain its margins based on the 2018-2021 historic average. We exclude 2020 from the average computation, as this was the year related to the pandemic. In this section, we present the main assumptions related to the Income Statement items (Annexes A and B).

4.1.1.1 Revenues

Considering World Bank Global Economic Prospects, we assume revenues will grow at the 2018-2023 real annual growth rate average, which is 2.5%. During the second semester of 2020, Nike experienced a strong digital growth of 84% which was able to offset lower revenues in the company´s wholesale business and owned-retail stores related to the Covid-19 preventive measures. Thus, we expect that in the following years revenues will increase not only due to the re-opening of retail stores during 2021, but also through Nike digital platforms.

4.1.1.2 Cost of Sales

We assume that cost of sales will grow in order to maintain the historic 2018-2021 gross profit margin (excluding 2020), which is equal to 44%. Hence, these costs will be computed as 56% of revenues for each year of the forecast period.

4.1.1.3 Selling and Administrative Expenses

Selling and Administrative expenses are divided into operating overhead expenses and demand creation expenses. The former consist primarily of wage and benefit-related expenses, research and development costs, bad debt expense, as well as other administrative expenses, such as rent, depreciation and amortization, professional services, meeting and travel. The latter consist of advertising and promotion costs, including costs of endorsement contracts, complimentary product, television, digital and print advertising and media costs, brand events and retail brand presentation.

Similarly, to the cost of sales, we assume that from 2022 onwards, these costs will correspond to the historic 2018-2021 average percentage of selling and administrative expenses over revenues, excluding 2020. Therefore, demand creation expense will represent 9% of the company´s revenues, and operating overhead expense will represent 20% of the same value, which means that for the forecast period, selling and administrative expenses will be 29% of revenues.

4.1.1.4 Depreciation and Amortization

We computed depreciation and amortization based on the 2018-2021 average of depreciation and amortization divided by the sum of fixed assets, both tangible (property, plant and equipment) and intangible assets. Thus, for the forecast period, depreciation and amortization represent 17% of the sum of fixed tangible and intangible assets.

4.1.1.5 Finance Income/Expenses

We compute finance income as the 2018-2021 average of finance income over deferred income taxes and other assets which was equal to 1.7%. Similarly, we calculate finance expenses as the 2018-2021 average of finance expenses divided by financial debt, which was equal to 1.5%. Thus, for the forecast period (2022-2025), finance expenses and finance income will grow at each of these corresponding rates. Note that for both accounts we excluded 2020 from the average computation.

4.1.1.6 Corporate Income Tax

The fluctuations and changes of the U.S. tax rate is one of the company’s major risk factors. Therefore, we decided to compute this item as the historic average of corporate income tax over earnings before taxes (EBT) excluding 2018, which was equal to 14%. We excluded 2018 from

the average computation as this was the year related to the enactment of the U.S. Tax Cuts and Jobs Act, where effective tax rate was 55.3%.

4.1.2 Balance Sheet Items

Balance sheet items are computed as 2018-2021 historic average percentage of sales, excluding 2020. We believe that 2020 was an abnormal year related to the pandemic and should not be considered in these computations. The only exceptions were for the operating leases, goodwill and shareholders' equity accounts. The first one, we compute as the 2020-2021 average of operating leases over revenues as this item only appears in the company balance sheet for these two more recent years. Goodwill, we maintained constant for the forecast period. Shareholders´ Equity, we used in order to correct the remaining value to complete the balance sheet. The computations for the balance sheet are shown in annex C and D.

4.1.2.1 Working Capital

Working Capital is the arithmetic difference between two balance sheet aggregated accounts: current assets and current liabilities. Both current assets and current liabilities are composed of several ledger accounts as: cash accounts and short-term investments, accounts receivable, inventory, payables and other working capital accounts such as prepaid expenses and accrued expenses. (Sagner, 2014).

The operating current assets considered in the computation of the working capital include the items "Accounts receivable", "Inventories" and "Prepaid expenses and other current assets". As current liabilities, we considered the items "Accounts payable", Accrued liabilities", "Income tax payable" and "Notes payable". Then, to calculate working capital for each year, we sum the value of current assets and subtract the sum of current liabilities. To compute working capital changes for each year we subtract working capital from the current year minus working capital from the previous year. The computations for the working capital are detailed in annex E.

4.1.2.2 CAPEX

The investment in Capex was computed as the variation of the book value of fixed tangible assets, operating leases of right-of-use assets and intangible assets plus depreciation of the respective year, as suggested by the following formula:

$$\text{Capex} = (\text{Fixed Assets}_{n} - \text{Fixed Assets}_{n-1} + \text{Operaring leases}_{n} - \text{Operating leases}_{n-1} + \text{Intangible Assets}_{n} - \text{Intangible Assets}_{n-1}) + \text{Depreciation}_{n} \quad (16)$$

4.1.3 Weighted Average Cost of Capital (WACC)

4.1.3.1 Risk-Free Rate

As suggested by the literature, the security used to proxy the risk-free rate was the 10-year U.S. Treasury Bond. According to Damodaran database, the 2020 treasury bond rate was 0.93% which we considered as our risk-free rate for the WACC calculations.

4.1.3.2 Beta

As Nike is a publicly traded company, we directly obtained its beta of 0.85 according to information from finance yahoo at the end of May 2021.

4.1.3.3 Market Risk Premium

The market risk premium of 5.60% used for this valuation corresponds to the U.S. average of the market risk premium obtained from Pablo Fernandez survey: "Market Risk Premium and Risk-Free Rate used for 80 countries in 2020".

4.1.3.4 Equity Required Rate of Return

Based on the inputs previously mentioned, the required equity rate of return was computed using the CAPM risk-return model, which yielded a rate of 5.70%.

4.1.3.5 Cost of Debt

Based on Nike Annual report (Note 8 – Long Term Debt), we compute the average of the firm´s interest rates from its long-term debt, which was 2.9%. In order to compute the after-tax cost of debt, we need to incorporate the effect of taxes, multiplying by one minus the effective tax rate of 14% and we get an after-tax cost of debt of 2.5%.

4.1.3.6 Capital Structure

We considered as financial debt the following balance sheet accounts: Current-portion of long-term debt, current-portion of operating lease liabilities, long-term debt, operating lease liabilities and deferred income taxes and other liabilities. The sum of these items for 2021 is equal to $15,766m. Regarding the equity value, we considered Nike market capitalization (price per share x number of shares outstanding) at the end of May 2021, which was $214,652m. Then, we computed both equity and debt percentage by dividing its respective value for the sum of the two values and we get 7% debt and 93% equity.

4.1.3.7 Summary

The following table presents the values of the WACC inputs previously mentioned and respective computation.

WACC Computation	
Rf	0.93%
Beta	0.85
MRP	5.60%
Ke	5.70%
Kd	2.90%
Tax rate	14%
After-tax kd	2.5%
Equity market value	215,602
Debt market value	15,766
Sum	231,368
%Equity	93%
%Debt	7%
WACC	**5.46%**

Table 13. WACC inputs. Own estimates

4.2 DCF-FCFF Valuation

4.2.1 Free Cash Flows to the Firm

We estimated free cash flows to the firm starting with operating profit (EBIT) of the company, to which we apply the tax rate (14%), adding the depreciations of the period to the result in order to obtain the operational net cash flow. Then, we subtract the investments in fixed assets and working capital to the operating net cash flow in order to obtain the free cash flow for each year. After having the free cash flow for each of the forecast years, we discount them using as discount rate the WACC previously calculated.

4.2.2 Continuing Value

The continuing value of a company is estimated by supposing an undefined duration of future cash flows starting on the last year of the forecast (2025), assuming a constant growth rate (g) for the cash flow starting on said year. As suggested by Damodaran (2002), we used as a proxy the nominal growth rate in the economy which is equal to the expected real growth plus expected inflation.

According to World Bank 2021 Global Economic Prospects, expected real growth is projected to strengthen to 5.6% and global inflation increase by 1.4% for 2021, which gives us a nominal growth rate of 6.8%. Despite the high pace recovery from some major economies, we believe

that the economy will increase in a more moderate way. Therefore, we compute our growth rate as the 2018-2023 real annual growth rate average, which is 2.5% (as previously mentioned), and we add the expected global inflation of 1.4% for 2021 to get as a proxy 3.9% for our growth rate. The discounted continuing value is equal to $277,317m, which represents 95% of the Enterprise value.

4.2.3 Nike´s Fair Value

In order to obtain Nike´s fair value we started by computing the Enterprise Value. The Enterprise Value is the sum of the discounted cash flows and discounted continuing value which equaled $293,242m. Then we subtracted the value of net financial debt (financial debt deducted from cash and short-term investments) to get an equity value of $290,952m. Finally, we obtained Nike´s fair value of $185.0 by dividing the equity value for the number of shares outstanding in 2021. We observe that the value using this method is above the market price, which indicates that Nike share price was undervalued at the time of ours valuation. The computation related to the Free Cash Flow to the Firm approach are shown in annex F.

4.2.4 Sensitivity Analysis

Considering the number of different assumptions used in this valuation and the uncertainty involving the future of economy related to the pandemic, we decided to perform a sensitivity analysis in order to give a bigger picture of the results if we change two key variables simultaneously. Therefore, we measured the impact on Nike´s Enterprise Value and share price of changes in the discount rate (WACC) and in the perpetual growth rate.

Sensitivity Analysis (Price per share)					
185.0	3.40%	3.65%	**3.90%**	4.15%	4.40%
4.96%	189.4	223.4	273.5	354.7	508.9
5.21%	162.9	187.2	220.8	270.3	350.5
5.46%	142.8	161.0	**185.0**	218.2	267.1
5.71%	127.1	141.1	159.1	182.8	215.6
5.96%	114.4	125.6	139.5	157.2	180.6

Table 14. Sensitivity Analysis (Price per share). Own estimates

As we can see, for a discount rate of 5.46% and a growth rate of 3.9% we get the previously computed value. Moreover, we can observe that the higher the discount rate and the lower the growth rate, the lower the enterprise value and consequently the lower the price per share. Furthermore, we observe that the closest scenario of the price according to market data ($136.46) at the end of May 2021, is if we consider a higher discount rate (5.71%) and a lower growth rate (3.65%).

4.3 Relative Valuation

To complement our DCF valuation we have also performed a multiples valuation. We decided to use the following multiples: EV/Revenues, EV/EBITDA and PE ratio.

Firstly, we chose to use these multiples for the companies that are Nike´s main competitors in the apparel and footwear market according to the firm´s annual report. Then, we computed the average and the median for each of these multiples.

Afterwards, we multiplied the average of the multiple by the corresponding 2021 Income Statement value. Finally, we divided the result by the number of shares outstanding in order to get Nike´s fair value. Note that for the EV/Revenues and EV/EBITDA multiples, we need to subtract the value of net financial debt before dividing by the number of shares. The results are summarized in the table below.

Company	EV/Revenues	EV/EBITDA	PE Ratio
Adidas	3.0	22.1	62.2
Anta	10.3	42.7	71.5
Asics	1.4	122.1	91.2
Li Ning	9.9	62.0	89.2
Lululemon athletica	8.6	35.2	60.0
Puma	2.5	41.4	90.4
Under Armour	2.1	27.5	86.9
V.F Corporation	3.9	41.3	76.7
Average	**5.2**	**49.3**	**78.5**
Median	3.4	41.4	81.8
Price per share	**145.4**	**240.9**	**285.8**
Average	**224.0**		
Market Price	**136.5**		
Difference	87.6		

Table 15. Multiples Valuation. Own estimates

According to the multiple's valuation, all the results suggest that Nike share price is undervalued relative to its market price at the end of May, like in the DCF method.

4.4 Valuation Results Summary

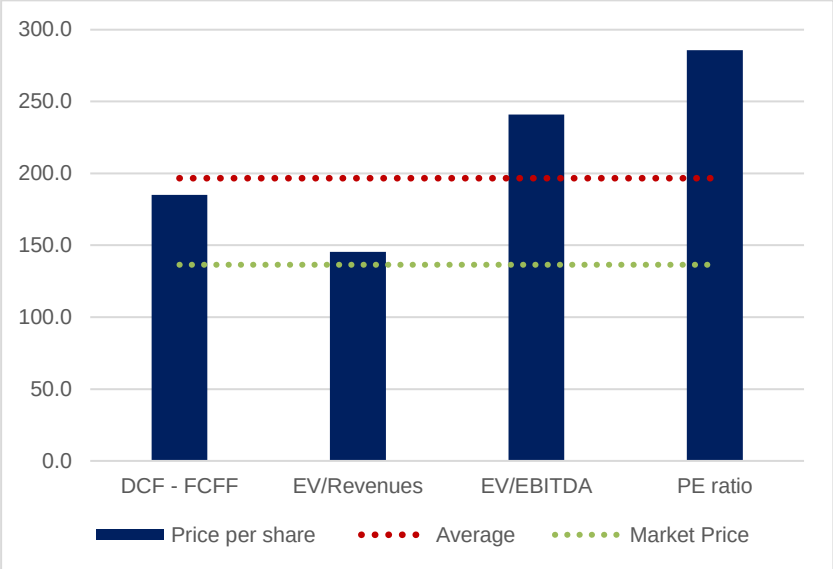

Figure 13. Valuation Results Summary. Own estimates

We observe that there are some differences in the valuation results, especially if we compare the DCF valuation with the multiples valuation. Although both methods indicate that Nike share price is undervalued compared to the market, there is a significant difference between these two methods. Thus, we decided to estimate Nike share price by giving a higher percentage to the DCF (70%) and a lower percentage to the multiples (30%), as this method is a complement to the former. Using this methodology, we obtained an average price per share at the end of May of $196.7, which is still higher than the market price.

We conclude that at the end of May, Nike share price was undervalued, whereby it was a good opportunity to buy for investors.

Conclusion

The main objective of this master project was to present a reliable valuation of Nike, Inc., by estimating the fair price of its shares as of 31 May 2021 and compare it with the actual share price.

In this sense, two methodologies were applied. First and mainly, DCF valuation, using the FCFF approach, in which the forecasted future cash flows were discounted at the weighted average cost of capital (WACC). And secondly, relative valuation, which is focused on finding the implied value of Nike Inc., through a comparison with a set of comparable listed firms from the same industry.

Even before the application of the valuation methods, the master project starts with the main literature about corporate valuation, from which it was possible to conclude the relevance of the topic in the different fields of Finance, as well as the main advantages and disadvantages of the core valuation methods. Furthermore, since every valuation is not an objective exercise as it depends on the assumptions made and therefore it should always be followed by a study of the company and the industry where the company operates in – topics that are also presented in this project.

The report results are consistent despite some difference between the two valuation models. The DCF-FCFF valuation yielded a share target price of $185.0, while the average multiples valuation was equal to $224.0. The final target price of $196.7 was obtained from the average of the two methods by giving a higher percentage to the DCF as this model requires more assumptions. To conclude, all the estimated results indicate that Nike´s shares were undervalued as of 31 May 2021, suggesting that Nike is still a growth company and may be a good opportunity to buy for many investors as shown by 2021 extraordinary results.

The main limitations associated with this valuation are related with the assumptions made. The uncertainty around COVID-19 makes it difficult to forecast the company´s cash flows, and results could be lower if we consider lower margins, a higher investment or a lower growth rate.

For future valuations of enormous companies like Nike, which have different business areas with also different risk profiles, it would be interesting to evaluate each business unit independently, using the appropriate methodologies.

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Annexes

Annex A - Historic Income Statement

P&L (Values in USD millions)	Historic Data			
	2018	2019	2020	2021
Revenues	36,397	39,117	37,403	44,538
Cost of sales	(20,441)	(21,643)	(21,162)	(24,576)
Gross profit	**15,956**	**17,474**	**16,241**	**19,962**
% Gross profit	*44%*	*45%*	*43%*	*45%*
Demand creation expense	(3,577)	(3,753)	(3,592)	(3,114)
Operating overhead expense	(7,160)	(8,229)	(8,415)	(9,114)
Total selling and administrative expense	(10,737)	(11,982)	(12,007)	(12,228)
% S&A	*29%*	*31%*	*32%*	*27%*
EBITDA	**5,219**	**5,492**	**4,234**	**7,734**
%EBITDA	*14%*	*14%*	*11%*	*17%*
D&A	(774)	(720)	(1,119)	(797)
EBIT	**4,445**	**4,772**	**3,115**	**6,937**
%EBIT	*12%*	*12%*	*8%*	*16%*
Finance income	0	78	0	40
Finance expenses	(120)	(49)	(228)	(316)
EBT	**4,325**	**4,801**	**2,887**	**6,661**
%EBT	*12%*	*12%*	*8%*	*15%*
Income tax expense	(2,392)	(772)	(348)	(934)
Corporate tax	*55%*	*16%*	*12%*	*14%*
Net Income	**1,933**	**4,029**	**2,539**	**5,727**
% Net Income	*5%*	*10%*	*7%*	*13%*

Annex B - Forecasted Income Statement

P&L (Values in USD millions)	Forecast			
	2022F	2023F	2024F	2025F
Revenues	45,651	46,793	47,963	49,162
Cost of sales	(25,362)	(25,996)	(26,646)	(27,313)
Gross profit	**20,289**	**20,796**	**21,316**	**21,849**
% Gross profit	*44%*	*44%*	*44%*	*44%*
Demand creation expense	(4,019)	(4,120)	(4,223)	(4,328)
Operating overhead expense	(9,273)	(9,504)	(9,742)	(9,986)
Total selling and administrative expense	(13,292)	(13,624)	(13,965)	(14,314)
% S&A	*29%*	*29%*	*29%*	*29%*
EBITDA	**6,997**	**7,172**	**7,351**	**7,535**
%EBITDA	*15%*	*15%*	*15%*	*15%*
D&A	(997)	(1,021)	(1,047)	(1,073)
EBIT	**6,001**	**6,151**	**6,304**	**6,462**
%EBIT	*13%*	*13%*	*13%*	*13%*
Finance income	41	41	42	43
Finance expenses	(203)	(208)	(213)	(218)
EBT	**5,839**	**5,984**	**6,133**	**6,286**
%EBT	*13%*	*13%*	*13%*	*13%*
Income tax expense	(820)	(841)	(862)	(883)
Corporate tax	*14%*	*14%*	*14%*	*14%*
Net Income	**5,018**	**5,143**	**5,272**	**5,403**
% Net Income	*11%*	*11%*	*11%*	*11%*

Annex C - Historic Balance Sheet

Balance Sheet (USD in millions)	2018	2019	2020	2021
Assets				
Current Assets:				
Cash and equivalents	4,249	4,466	8,348	9,889
Short-term investments	996	197	439	3,587
Accounts receivable, net	3,498	4,272	2,749	4,463
Number of days	*35*	*39*	*26*	*36*
Inventories	5,261	5,622	7,367	6,854
Number of days	*93*	*94*	*125*	*100*
Prepaid expenses and other current assets	1,130	1,968	1,653	1,498
Total current assets	**15,134**	**16,525**	**20,556**	**26,291**
Non-current assets:				
Property, plant and equipment, net	4,454	4,744	4,866	4,904
Operating lease right-of-use assets, net			3,097	3,113
Identifiable intangible assets, net	285	283	274	269
Goodwill	154	154	223	242
Deferred income taxes and other assets	2,509	2,011	2,326	2,921
Total Non-Current Assets	**7,402**	**7,192**	**10,786**	**11,449**
Total Assets	**22,536**	**23,717**	**31,342**	**37,740**
Liabilities				
Current liabilities:				
Current portion of long-term debt	6	6	3	0
Notes payable	336	9	248	2
Accounts payable, net	2,279	2,612	2,248	2,836
Number of days	*40*	*43*	*38*	*42*
Current portion of operating lease liabilities			445	467
Accrued liabilities	3,269	5,010	5,184	6,063
Income taxes payable	150	229	156	306
Total current liabilities	**6,040**	**7,866**	**8,284**	**9,674**
Non-current liabilities:				
Long-term debt	3,468	3,464	9,406	9,413
Operating lease liabilities			2,913	2,931
Deferred income taxes and other liabilities	3,216	3,347	2,684	2,955
Total non-current liabilities	**6,684**	**6,811**	**15,003**	**15,299**
Total Liabilities	**12,724**	**14,677**	**23,287**	**24,973**
Total Shareholders´ Equity	**9,812**	**9,040**	**8,055**	**12,767**

Annex D - Forecasted Balance Sheet

Balance Sheet (USD in millions)	2022F	2023F	2024F	2025F
Assets				
Current Assets:				
Cash and equivalents	6,893	7,065	7,241	7,423
Short-term investments	1,719	1,762	1,806	1,851
Accounts receivable, net	4,649	4,765	4,885	5,007
Number of days	*37*	*37*	*37*	*37*
Inventories	6,730	6,898	7,070	7,247
Number of days	*96*	*96*	*96*	*96*
Prepaid expenses and other current assets	1,750	1,794	1,838	1,884
Total current assets	**21,740**	**22,283**	**22,840**	**23,412**
Non-current assets:				
Property, plant and equipment, net	5,383	5,518	5,656	5,797
Operating lease right-of-use assets, net	3,485	3,573	3,662	3,753
Identifiable intangible assets, net	321	329	337	346
Goodwill	242	242	242	242
Deferred income taxes and other assets	2,829	2,900	2,973	3,047
Total Non-Current Assets	**12,261**	**12,562**	**12,870**	**13,185**
Total Assets	**34,001**	**34,845**	**35,710**	**36,597**
Liabilities				
Current liabilities:				
Current portion of long-term debt	5	5	5	5
Notes payable	145	148	152	156
Accounts payable, net	2,938	3,012	3,087	3,164
Number of days	*42*	*42*	*42*	*42*
Current portion of operating lease liabilities	511	524	537	550
Accrued liabilities	5,387	5,522	5,660	5,801
Income taxes payable	256	263	269	276
Total current liabilities	**9,242**	**9,473**	**9,710**	**9,953**
Non-current liabilities:				
Long-term debt	6,014	6,164	6,318	6,476
Operating lease liabilities	3,280	3,362	3,446	3,532
Deferred income taxes and other liabilities	3,656	3,748	3,841	3,937
Total non-current liabilities	**12,950**	**13,273**	**13,605**	**13,945**
Total Liabilities	**22,192**	**22,747**	**23,316**	**23,898**
Total Shareholders´ Equity	**11,809**	**12,098**	**12,394**	**12,698**

Annex E - Working Capital

Working Capital (Values in USD millions)	2018	2019	2020	2021	2022F	2023F	2024F	2025F
Current assets:								
Accounts Receivable	3,498	4,272	2,749	4,463	4,649	4,765	4,885	5,007
Inventories	5,261	5,622	7,367	6,854	6,730	6,898	7,070	7,247
Prepayments for Current Assets	1,130	1,968	1,653	1,498	1,750	1,794	1,838	1,884
Total Current assets	**9,889**	**11,862**	**11,769**	**12,815**	**13,129**	**13,457**	**13,793**	**14,138**
Current liabilities:								
Accounts Payable	2,279	2,612	2,248	2,836	2,938	3,012	3,087	3,164
Accrued Liabilities	3,269	5,010	5,184	6,063	5,387	5,522	5,660	5,801
Income Tax Payable	150	229	156	306	256	263	269	276
Notes Payable	336	9	248	2	145	148	152	156
Total Current liabilities	**6,034**	**7,860**	**7,836**	**9,207**	**8,582**	**8,797**	**9,016**	**9,242**
Working Capital	**3,855**	**4,002**	**3,933**	**3,608**	**4,547**	**4,660**	**4,777**	**4,896**
Working Capital Variation		**147**	**(69)**	**(325)**	**939**	**114**	**117**	**119**

Annex F - DCF Valuation

FCFF (USD in millions)	2018	2019	2020	2021	2022F	2023F	2024F	2025F
EBIT	4,445	4,772	3,115	6,937	5,994	6,143	6,297	6,454
NOPLAT	3,820	4,101	2,677	5,962	5,151	5,280	5,412	5,547
D&A	774	720	1,119	797	967	992	1,016	1,042
Operating Cash Flow	**4,594**	**4,821**	**3,796**	**6,759**	**6,119**	**6,272**	**6,428**	**6,589**
Investment in WC	0	147	(69)	(325)	939	114	117	119
Investment in Capex	(307)	1,008	4,329	846	1,871	1,221	1,252	1,283
FCFF	**4,901**	**3,666**	**(464)**	**6,238**	**3,309**	**4,937**	**5,060**	**5,187**
Discounted FCFF					3,138	4,439	4,315	4,194
Terminal Value								342,775
Discounted TV								277,157

EV	**293,242**
Net Financial Debt	2,290
EQV	**290,952**
Number of shares	1,573
Price per share	**185.0**
Market price (28/5/21)	136.5
Difference	48.5