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Equity Valuation of Nike, Inc.

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Master in Management

Supervisor:

PhD Pedro Leite Inácio, Assistant Professor

ISCTE Business School

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BUSINESS
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Department of Finance

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To my grandmother
"There's no comparison between a rose and a tulip. They both bloom when it's their time."

Acknowledgements

As I reflect on the conclusion of this project, I find myself overwhelmed with a deep sense of gratitude. This journey has been memorable, filled with challenges and growth and I owe a debt of thanks to those who supported, guided, and inspired me throughout.

Firstly, to God. I have been talking to him for so long, that's my bestie.

To my mother and father, for making me believe in what I believe, even when I am the only one believing. Your effort to ensure I received the best education possible is a gift beyond measure and I will honor it by making the most of it, not only for personal growth but also to make a positive impact on the world.

To my younger brother, for everything. I will never be able to express the meaning of having you in my life. Everything I am not, you made me everything I am. Only we know.

To my late grandfather, though you are no longer with us in the physical sense, your presence remains a constant source of inspiration in my life. Your belief in the importance of forging one's unique journey has left a profound impact on me. In a world that often encourages conformity, I carry your spirit with me as a reminder to always create rather than follow paths.

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Lastly but not least, to someone I constantly chase – my hero. My hero it's me in 10 years. Every day, every week, every month, and every year of my life, my hero's always 10 years away. I know that I am never going to beat my hero, and I am entirely at peace with that because that keeps me with somebody to keep on chasing.

Resumo

Nike, Inc., fundada em 1964, é uma empresa norte-americana que, impulsionada pelo reconhecimento da sua marca, oferta de produtos inovadores e extensa rede de distribuição, é reconhecida como a líder global na indústria do calçado, vestuário, equipamentos e acessórios desportivos. Atualmente cotada na Bolsa de Valores de Nova York, desde a sua Oferta Pública Inicial (IPO) em 1980, a empresa em análise manteve uma impressionante trajetória de crescimento no preço das suas ações ao longo dos anos.

O principal objetivo deste projeto de mestrado é determinar o valor justo das ações da empresa Nike à data de 31 de Maio de 2023 e subsequentemente, através da comparação desse valor justo com o preço de mercado das ações nessa específica data, providenciar uma recomendação de investimento para potenciais investidores, aconselhando-os se devem comprar, vender ou manter as ações.

Depois de uma análise minuciosa da relevante literatura na área financeira para identificar os métodos de avaliação mais eficazes, as metodologias escolhidas que irão ser aplicadas são a dos Fluxos de Caixa Descontados na ótica da Empresa, seguida de um método complementar, a Avaliação Relativa, que nos permitirá obter uma recomendação final mais precisa e bem fundamentada.

Os resultados obtidos tanto pelo Método de Avaliação Relativa como pelo Método de Avaliação pelo Fluxos de Caixa Descontados indicam que, a 31 de Maio de 2023, as ações da Nike estavam sendo negociadas a um prémio em relação ao seu valor intrínseco. Consequentemente, a nossa recomendação final aos investidores é que deveriam vender as ações da empresa.

Palavras-chave: Nike, Inc.; Fluxos de Caixa Descontados; Avaliação Relativa; Avaliação de Empresas

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

Abstract

Nike Inc., founded in 1964, is a North American company that, driven by its strong brand recognition, innovative product offerings, and extensive distribution network, is recognized as the global leader in the athletic footwear, apparel, equipment, and accessories industry. Currently listed on the New York Stock Exchange, since its Initial Public Offering (IPO) in 1980, the company has maintained a remarkable growth trajectory in its stock price throughout the years.

This master's dissertation primary purpose is to determine the fair value of Nike's shares as of 31st May 2023 and subsequently, through a comparison with the market price of shares at that date, provide an investment recommendation to potential investors on whether to buy, sell or hold the stock.

After thoroughly examining the relevant literature in the finance field to identify the most effective company valuation methods, the chosen methodologies that will be applied are the Free Cash Flow to the Firm, followed by a complementary method, the Relative Valuation, which will allow us to derive a more precise and well-informed final recommendation.

The results derived from both Relative Valuation and the DCF Valuation method suggests that as of 31st May 2023, Nike's shares were trading at a premium to their intrinsic value. Consequently, our final recommendation to investors is that they should sell the company's stock.

Keywords: Nike, Inc.; Discounted Cash Flows; Relative Valuation; Company Valuation

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

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Glossary

CAGR – Compounded Annual Growth Rate

CAPEX – Capital Expenditure

CAPM – Capital Asset Pricing Model

CEO – Chief Executive Officer

CF – Cash Flow

CRP – Country Risk Premium

D – Market Value of Debt

D&A – Depreciation and Amortization

DCF – Discounted Cash Flow

DTC – Direct to Consumer strategy

E – Market Value of Equity

EBIT – Earnings Before Interest and Taxes

EBITDA – Earnings Before Interest, Taxes, Depreciations and Amortizations

EBT – Earnings Before Taxes

EMDEs – Emerging Markets and Developing Economies

EQV – Equity Value

EV – Enterprise Value

EV/EBITDA – Enterprise Value to EBITDA

EV/EG – Enterprise Value to EBITDA Growth

EVA – Economic Value Added

FCFE – Free Cash Flow to Equity

FCFF – Free Cash Flow to the Firm

GDP – Gross Domestic Product

IMF – International Monetary Fund

IPO – Initial Public Offering

M&A – Mergers and Acquisitions

MRP – Market Risk Premium

MVA – Market Value Added

NOA – Non-Operating Assets

NOPLAT – Net Operating Profit Less Adjusted taxes

NYSE – New York Stock Exchange

P/BV – Price to Book Value

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PEG – Price to Earnings Ratio

PER – Price to Earnings Ratio

ROA – Return on Assets

ROE – Return on Equity

ROIC – Return on Invested Capital

S&P – Standard and Poor's

SWOT – Strengths, Weaknesses, Opportunities and Threats

TGR – Terminal Growth Rate

TV – Terminal Value

U.S. – United States of America

WACC – Weighted Average Cost of Capital

WC – Working Capital

Introduction

The main goal of this master's project is to conduct an in-depth analysis and evaluation of Nike, Inc., aiming to provide to prospective investors an investment recommendation by determining the fair value of the company's shares on 31 May 2023 and comparing it with the current closing share price.

Nike, Inc., a publicly traded company founded in 1964 and headquartered in Oregon, United States, is the largest seller of athletic footwear and apparel worldwide, with a presence in more than 190 countries. The company, with 1,032 retail stores and a workforce of approximately 83,700 employees across the globe, is divided into three major business segments: Footwear, Apparel and Equipment. In the 2023 fiscal year, the company reached a Revenue, EBITDA, and Net Income of \$51.18 billion, \$6.77 billion, and \$5.07 billion, respectively. Overall, Nike's business strategy is based on two key components: emotive marketing campaigns and partnerships with sports celebrities to drive brand growth, while simultaneously, through innovation, ensuring the development of high-quality products.

Following the introduction, this project starts with a literature review, which provides an overview of the main valuation methods, studied and applied by several authors over the years. In the next section, an analysis of the macroeconomic and industry framework is undertaken, based on International Monetary Fund world economic outlook and a collaborative study conducted by McKinsey & Company and the World Federation of Sporting Goods Industry. Then, we will make an overview of the company, including the company's history background, business overview, stock performance, and a Financial Statement analysis. Lastly, the main section is devoted to the actual valuation of Nike, Inc., using the Discounted Cash Flow Model (Free Cash Flow to the Firm) and the Relative Valuation (Multiples). In this section, the key assumptions of the model are outlined and forecasts are presented, a sensitivity analysis is performed, and a concise summary of the obtained results is made, culminating in the formulation of the respective investment recommendation.

1. Literature Review

1.1 Valuation Methodologies

As Damodaran (2005) stated, “valuation can be considered the heart of the finance”, playing a key role in the core fields of finance, such as Corporate Finance, Mergers and Acquisitions (M&A), Portfolio Management, among others. Understanding the mechanism of a company valuation is an indispensable requirement to present solid and trustworthy results, making it imperative to know the value of the asset and what determines that value (Damodaran, 2005). When evaluating corporate events, such as M&A, it becomes pivotal to determine the fair value that satisfies both the buyer and the seller, as it facilitates the negotiation process between the parties involved (Pinto et al., 2018).

However, a company’s valuation process is not straightforward and can be somewhat subjective and complex since it can be done through different methods, approaches and carried out for a wide range of purposes. Some of these purposes include the in company buying and selling operations; public offerings; the valuation of listed companies, supporting the decision to whether sell, buy or hold the shares; strategical planning and in the identification of value drivers (Fernández, 2007).

The process of appropriately valuing a company has been a topic discussed over the years. According to Copeland, Koller and Murrin (2000), having reliable information is crucial for the investor to decide whether to invest or not, and the value reached by the valuation is the indicator that employs the most complete information.

1.1.1 Discounted Cash-Flow Model (DCF)

First introduced in the 1970’s (Luehrman, 1997), the Discounted Cash Flow Model (DCF), in the Finance field, is the most widely used and trusted approach that seek to estimate an asset’s intrinsic value.

In practice, the DCF model is based on the present value rule (Damodaran, 2005), where the value of an asset is estimated by computing the present value of the expected cash flows discounted at a rate that reflects the riskiness of those cash flows, as synthesized in the following mathematical formula:

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$$Value = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t} \quad (1)$$

Where:

n = Life of the asset

CF_t = Expected Cash Flows in period t

r = Discount rate

However, as reported by Damodaran (2005), the Discounted Cash Flow Valuation model includes two types of perspectives: the Firm Valuation and the Equity Valuation. The first one considers the entire business in the valuation, including equity and other claim holders whereas the other one only values the equity side of the company.

1.1.1.1 Free Cash-Flow to the Firm

The Free Cash-Flow to the Firm (FCFF), which belongs to the Firm Valuation approach, can be described as the residual cash flow that is generated for the firm after the deduction of expenses, taxes and variations of working capital and, as demonstrated by Modigliani & Miller (1958) and Damodaran (2012), can be written as follows:

$$FCFF = EBIT (1 - tax\ rate) + Depreciations - Capital\ Expenditure - \Delta Working\ Capital \quad (2)$$

The Enterprise Value (EV) is, then, given by discounting the net cash flows to the firm at the weighted average cost of capital (WACC), while bearing in mind the Terminal Value (TV) at perpetuity, being computed as follows:

$$Enterprise\ Value = \sum_{t=1}^{t=n} \frac{FCFF_t}{(1+WACC)^t} + \frac{TV_n}{(1+WACC)^n} \quad (3)$$

Where:

$FCFF_t$ = Free Cash Flow generated by the company in the period t

TV_n = Terminal Value of the company in the period n

$WACC$ = Weighted Average Cost of Capital

When valuing a company and assuming that it will generate future cash flows at a constant rate forever, the Terminal Value should also be taken into consideration. According to (Young

et al., 1999), the calculation and use of the Terminal Value is the most consistent way to deal with the uncertainty of the company's future performance. The Terminal Value can be calculated based on the following equation:

$$\text{Terminal Value} = \frac{FCFF_t}{WACC - TGR} \quad (4)$$

Where *TGR* corresponds to the terminal growth rate, which represents the estimated sustainable growth rate of the company's cash flows beyond the explicit forecast period.

Thereafter, in order to compute the company's total value, it is necessary to determine the Equity Value (EQV) through the adjustment of the enterprise value, considering the value of Non-Operating Assets (NOA) and the debt, as demonstrated below.

$$\text{Equity Value} = \text{Enterprise Value} + \text{Non Operating Assets} - \text{Debt} \quad (5)$$

Consequently, by dividing the value of the EQV by the number of outstanding shares, we can derive the fair value per share (Steiger, 2008).

1.1.1.1.1 Weighted Average Cost of Capital (WACC)

As mentioned before, the discount factor used when computing FCFF is Weighted Average Cost of Capital, which represents the after-tax weighted average of required rate of return from each capital source (Pinto et al., 2010). The formula that may be considered when computing WACC is:

$$WACC = \frac{E}{D + E} * r_e + \frac{D}{D + E} * r_d * (1 - t) \quad (6)$$

Where:

D – market value of debt

E – market value of equity

D + E – market value of the company

r_d – cost of debt

r_e – cost of equity

t – tax rate

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Although applying the WACC may appear simple and straightforward, there are numerous downsides according to a lot of research. For example, stated by Luehrman (1997), the WACC has limitations in that it will only be effective for companies with constant capital structures, whereas more complex ones will require further adjustments to accurately reflect the cost of capital.

1.1.1.1.2 Cost of Equity

One of the WACC's components is the cost of equity and there are several models that can be applied in its computation. The most known and widely used model employed for the determination of the expected rate of return for an asset is expressed by the Capital Asset Pricing Model (CAPM). The cost of equity (R_e) is given by the following formula (Damodaran 2012):

$$R_e = R_f + \beta * (R_M - R_f) \quad (7)$$

Where the risk-free rate is represented by R_f , which is the return on riskless assets; β that measures the stock's sensitivity to the market return and $(R_M - R_f)$ that defines the return of the market in excess of the risk-free rate.

Before describing each element of the equation above, it is crucial to keep in mind the CAPM's underlying assumptions, claimed by Damodaran (2012): the market is efficient, investors have access to all accessible information and there are no transaction costs.

1.1.1.1.2.1 Risk-free rate

As previously demonstrated, the first input of the CAPM Model is the risk-free rate (R_f) which reflects the rate of return of a zero-risk investment, over a specific time period. By other words, the investor knows the expected return with certainty, deprived of default risk associated with the cash flows and reinvestment risk (Damodaran, 2008).

According to Borgerssen and Kivedal (2018), the most suitable method to obtain the risk-free rate is using a proxy of a long-term government bonds since it is the most riskless asset available. It is important to highlight that, according to Damodaran (2008), when selecting the risk-free rate, is fundamental the consistency between the currency in which the cash flows are being estimated and the referred risk-free proxy of the government bond.

Since the valuation focuses on an American company, we will use the US 10-year Treasury Bond as the risk-free rate.

1.1.1.1.2.2 Market Risk Premium

Another component considered in the CAPM model is the Market Risk Premium (MRP) which represents the premium that investors require for undertake risky investments instead of riskless assets (Damodaran, 2009). In other terms, is the difference between the expected market return (R_M) and the risk-free rate (R_f).

1.1.1.1.2.3 Beta

As previously mentioned, beta is a measure of systematic risk and “measures how much the stock and entire market move together” (Koller et al., 2015). The higher the beta, the greater the volatility of the stock and thus, the higher of market risk exposure of the company.

Damodaran (2012) suggests estimating the beta as:

$$\beta = \frac{COV(R_e, R_M)}{\sigma^2(R_M)} \quad (8)$$

Where:

R_M – Return of the market portfolio

$\sigma^2(R_M)$ – Variance of the market portfolio

R_e – cost of equity (Stock Return)

In mathematical terms, the closer the value of beta is to 1, the more the stock tends to follow the market. If a stock’s beta value exceeds one, the stock is more volatile than the market, whereas a beta below one means the stock is less volatile than the market. Additionally, beta can also be negative, indicating that the asset has an opposite behavior from the market, or zero, denoting a risk-free asset.

Damodaran (2012) also highlighted the significance of financial leverage when computing beta. The author distinguishes beta into two types: unlevered and levered. The capital structure is where they diverge from one to another. The first one alludes to a corporation exclusively financed by equity while the levered beta represents a firm composed by equity and debt as part of its capital structure.

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Assuming that the debt beta is zero, the following formula may be used to calculate the levered beta:

$$\beta_L = \beta_u \left[1 + (1 - t) \frac{D}{E} \right] \quad (9)$$

Where:

β_L – Levered Beta

$\frac{D}{E}$ – Debt to Equity Ratio

β_u – Unlevered Beta

t – Corporate Tax Rate

1.1.1.1.3 Cost of Debt

For the computation of the WACC, we also need to consider the cost of debt. The cost of debt represents the interest rate that a firm pays off due to its current debt. Generally, is referred to as the After-tax cost of debt, as it incorporates the tax benefits associated with debt arising from the tax deductibility of interest payments (Damodaran, 2012). The After-tax cost of debt can be calculated as follows:

$$\text{After tax cost of debt} = (R_f + \text{Default Spread}) * (1 - t) \quad (10)$$

The aforementioned formula comprises three parameters. The risk-free rate has been previously discussed, while the corporate tax rate refers to the annual effective tax rate. Additionally, the default spread has a high level of subjectivity. When a company is publicly traded, which is the case that will be analyzed, the default spread can be derived from its credit rating and associated default spreads, provided by established rating agencies such as Standard & Poor's (S&P), Moody's or the Fitch Group. However, if the company has not publicly traded securities, the default spread can be estimated or by deriving a synthetic rating based on its financial ratios (Damodaran, 2012). According to Frykman & Tolleryd, (2003), a simple approach entails basing the rating on the interest coverage ratio of the company, which is calculated as the ratio of Earnings Before Interest and Taxes (EBIT) to Interest Expense.

1.1.1.2 Free Cash-Flow to Equity

According to Damodaran (2005), the FCFE represents the remaining cash flows for distribution to equity shareholders after all the capital expenses, reinvestment and debt obligations are paid. Consequently, one way to estimate the Free Cash Flow to Equity (FCFE) is as following:

$$FCFE = FCFE - Interest\ expenses * (1 - t) + \Delta Debt \quad (11)$$

Alternatively, decomposing the value of $FCFF$ (formula 2), we can compute the following expression:

$$FCFE = Net\ Income + Depreciation\ \&\ Amortization - Capex - \Delta WC + Net\ Borrowing \quad (12)$$

Therefore, the firm's equity value can be computed by discounting all projected cash flows the cost of equity (r_e) (Damodaran, 2012).

$$Value\ of\ Equity = \sum_{t=1}^{t=n} \frac{FCFE_t}{(1 + r_e)^t} \quad (13)$$

1.1.1.3 Economic Value Added

Economic Value Added (EVA) is another valuation methodology that, according to Damodaran (2012), "is a measure of the dollar surplus value created by an investment or a portfolio of investments". By assessing the difference between the Return on Invested Capital (ROIC) and the cost of invested capital (WACC), multiplied by the amount of Invested capital, the EVA evaluates a company's performance indicating whether it is creating economic value for the investor or destroying it (Mota et al., 2012).

The equation for EVA can be computed through the following formula:

$$\begin{aligned} EVA &= Invested\ Capital \times (ROIC - WACC) \\ &= NOPLAT - (Invested\ Capital \times WACC) \end{aligned} \quad (14)$$

Where $NOPLAT$ corresponds to the Net Operating Profit Less Adjusted Taxes.

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Additionally, related with EVA is the Market Value Added (MVA). This methodology evaluates the value created by a company in the past and the generation prospects for the future (Mota et al., 2012). The following can be written:

$$MVA = \sum_{t=1}^n \frac{EVA^t}{(1 + WACC)^t} \quad (15)$$

1.1.2 Relative Valuation

Another common valuation approach is the Relative Valuation that compares values from a company with values from other comparable companies in the market. According to Damodaran (2005), in this methodology, assets are valued based on how similar assets are currently being priced in the market.

Understanding which multiples should be applied and selecting the suitable firm for comparison are the main challenges in this appraisal. Koller, Goedhart and Wessels (2015) recommend to be considered as peers, companies with comparable projections of return on invested capital and growth rate. In the table below, we present the main groups of multiples according to Fernandez (2019):

Table 1: Most Commonly Used Multiples

Multiples Based on Capitalization	Price-to-Earnings (PER) Price-to-Cash Flow Price to Book Value (P/BV)
Multiples Based on Company's Value	Enterprise Value to EBITDA (EV/EBITDA) Enterprise Value to Sales (EV/Sales)
Growth-referenced Multiples	PEG (Price/Earnings to growth ratio) EV/EG (Enterprise Value/EBITDA Growth)

Source: Pablo Fernandez (2019)

However, Damodaran (2012) also warns of some limitations of using multiples. Firstly, the simplicity with which a Relative Valuation may be constructed might result in inaccurate estimations since crucial factors, such as risk, cash flow or growth potential may be neglected.

The author also noted the lack of transparency associated with the choice of indicators in the valuation process, turning the multiples more susceptible to manipulation.

Therefore, the Relative Valuation should only be used as a complement to other models, by comparing and recognizing the different outcomes between the company and the comparable ones (Fernández, 2019).

2. Macroeconomic Overview

2.1 Macroeconomic Outlook

On the surface, the global economy looks to be heading towards a slow recovery from the catastrophic effects of the pandemic and of Russia's war with Ukraine. China's economy is experiencing an overwhelming resurgence, following its reopening. Supply-chain disturbances are decreasing, while the war's impact on energy and food markets are lessening. Additionally, the significant and synchronous tightening of monetary policies by central banks across the globe is expected to start to yield favorable outcomes, with inflation gradually returning to its targets.

However, despite the perception of relative stability, turbulence is gradually getting worse, and the current situation seems to be quite delicate. An example of that is the recent unexpected failures of three regional banks in the United States (U.S) and the loss of confidence in Credit Suisse, a major financial institution.

Consequently, according to the forecast of the International Monetary Fund (IMF) in April 2023, in the short term, the global economy is expected to decline in growth from 3.4% in 2022 to 2.8% in 2023, before slightly rise to 3% in 2024.

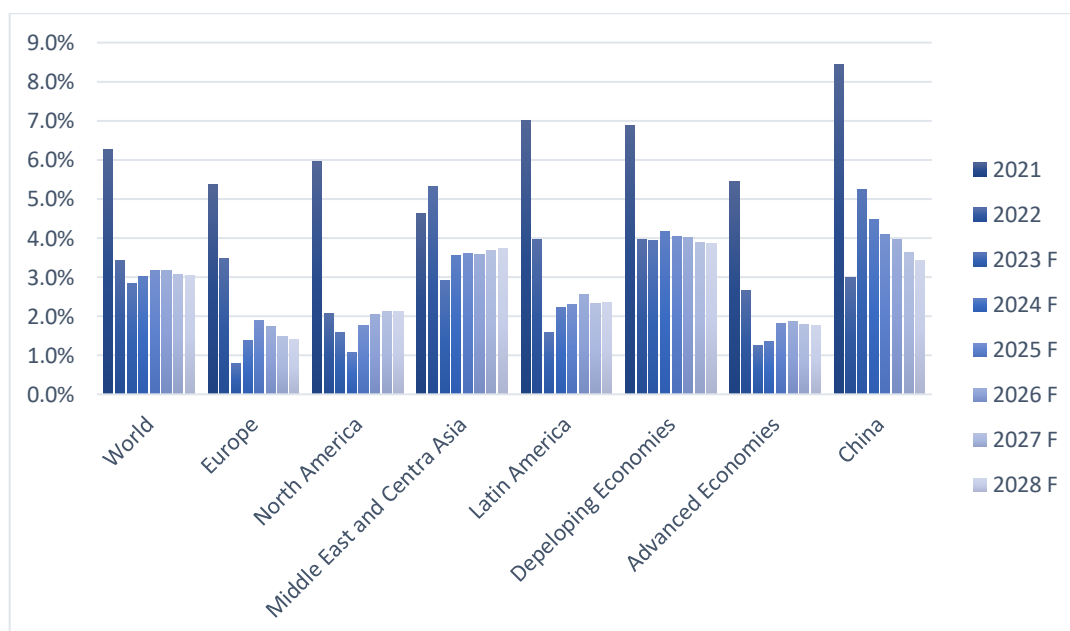


Figure 1: Regional GDP Development
Source: IMF World Economic Outlook, April 2023

Nevertheless, analyzing the chart above, the forecasted growth in 2023 is uneven, with significant differences in the growth rate between advanced economies and emerging market and developing economies (EMDEs). The slowdown in growth is predicted to be more pronounced in advanced economies, where growth rates are expected to decrease from 2.7% in 2022 to 1.3% in 2023. Conversely, EMDEs exhibit stronger economic prospects, with their growth rate being 4% in 2022 and predicted to be 3.9% in 2023. Notably, with the economy forecasted to grow approximately 5.2% in 2023, China's prospects are more optimistic in comparison to those of the majority of EMDEs.

In a mid-term outlook, it has been expected that global growth will be approximately 3%, representing the lowest medium-term projection in a World Economic Outlook in more than three decades. The weaker growth prospects in the global economy are related to restrictive policy measures required to control inflation, the repercussions of the recent collapse in financial conditions, and geopolitical instability.

Regarding inflation, IMF expects global inflation to drop from 8.7% in 2022 to 7% this year and 4.9% in 2024, mainly due to lower commodity prices. However, core inflation, which excludes the volatile energy and food components, is expected to remain higher for a longer period.

Overall, based on data provided from the IMF, the inflations prospects indicate a steady decline in the global inflation rate in the medium term. In 2028 the global inflation rate is expected to reach its lowest point, with a projected rate of 3%. This could positively impact the economic environment by foresting greater economic predictability and consumer purchasing power.

2.2 Industry Overview – The Sportswear Industry

2.2.1 2022 Outlook

The Sportswear Industry was expected to have a prosperous year in 2022. As COVID-19 restrictions eased in most countries, consumer sentiment was on the rise, and companies were placing significant orders to meet anticipated demand and prevent the supply chain difficulties experienced in 2021. The industry's performance during the first half of the year was generally positive.

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Despite the optimism outlook, underlying challenges were building up. Inflation was increasing, which was mainly attributed to the impact of the Ukraine war's, and rising raw materials and energy costs were causing some companies to raise prices. Additionally, consumer sentiment began to show signs of waning optimism, leading to a decline in discretionary spending. Hence, although supply chains became more reliable over time, the sudden surge in product availability and reduced spending resulted in an overstocking issue.

The economic outlook worsened in the second half of the year, due to growing concern over geopolitical instability and the increase in interest rates. Despite sporting goods companies managed to increase their prices, it was not sufficient to compensate the decrease in units sold.

2.2.2 Industry Insights: Key Trends Shaping the Industry in 2023

Considering the prevailing challenges, merely raising prices may not be the optimal solution in response to the decline in demand. According to McKinsey & Company, there are four key trends set to shape the sporting goods industry in 2023: Brand Relevance; Sustainability; Nearshoring; Investments in the Industry.

2.2.2.1 Brand Relevance: A Leading Trend

Given the current economic environment, customer loyalty is being challenged by the rising level of uncertainty. Therefore, building trust with customers has become increasingly crucial for companies.

Consumer sentiment is also shifting. In the past, customers tended to base their purchasing decisions on aspects such as functionality or design. However, brand value has become a critical factor in the consumer decision-making process. For instance, a typical customer who intends to buy a pair of sneakers, in the past may have prioritized design or functionality over brand. Nevertheless, in the current context, the first customer's consideration is which brand aligns with and enhances its identity.

Several brands are exploring new ways to engage with consumers and enhance their brand profile. Leading companies are nowadays employing five key strategies to strengthen their brand:

- The direct-to-consumer (DTC) revolution: as more brands are transitioning to a DTC business model, wholesale distribution is declining. According to Nike reports, sales

from DTC channels have increased from 26% in 2016 to 44% in 2023, and the company estimates to achieve 60% by 2025.

- Partnerships with high-end fashion brands: several brands have collaborated with fashion businesses to engage customers and reach new markets. Collaborations such as Adidas and Prada, which successfully combines design and craftsmanship, resulted in expanded customer bases.
- Community marketing: by investing in a range of channels such as social media, affiliates, or media networks, sporting goods companies are giving the community a far more important role. This approach allows the possibility for individuals to become part of the community while engaging in individual sports, such as hiking or cycling.
- From celebrity endorsement to influencer marketing: in the quest for building brand awareness and customer loyalty, influencer marketing is becoming more prominent. Brands are promoting their major sponsorships on social media and are leveraging micro-athletes who have a strong online presence to reach new audiences.
- Collaborations with wholesalers and retailers: companies have been partnering with strategic partners seeking to expand customer loyalty and build brand equity that enables more deeper and sophisticated customer engagement. One example of this is Nike's partnership with JD Sports, allowing customers that acquire Nike products from this retailer to enroll in Nike's direct customer loyalty program.

2.2.2.2 Sustainability: A Growing Priority

The adoption of sustainable practices has become a widespread trend in the sporting goods industry, with nearly all brands committing to minimize their carbon footprint, tackle harmful environmental practices, and transitioning towards circular business models.

However, many companies are still expecting absolute emissions to rise despite reducing CO_2 intensity per unit of revenue. Therefore, to address this issue, companies must prioritize two key steps. Firstly, they should develop and implement decarbonization plans. Secondly, companies should also rethink business models that focus on selling new products, and instead, encourage resale, reuse, and recycling to extend the product lifespans and cut down on the use of raw materials.

In today's business, companies in the sporting goods industry are facing mounting pressure to ensure that their operations and products align with environmental sustainability goals. This

challenge is not new to the industry, and decision-makers must be proactive in addressing it to preserve a competitive edge. Companies that effectively handle this challenge stand to gain a leadership position in the drive towards a more sustainable future, perhaps creating new opportunities for growth and innovation.

Overall, and as stated by Barbara Martin Coppola (CEO of Decathlon): *“The sporting goods industry will only exist and thrive if our playing field, the planet, is respected and protected.”*

2.2.2.3 Nearshoring: The Shifting on Sourcing

The ongoing supply chain disruptions, the rising Asian labor costs, and geopolitical uncertainties has led to a growing interest by many companies, in the sporting goods industry, in nearshoring as a potential solution. Nearshoring can provide a range of advantages including increased supply chain security, agility, speed, cost competitiveness, protection against trade barriers, and the adoption of a more sustainable business model.

However, nearshoring does not always proceed as intended, and several firms have reversed their nearshoring decisions. To mitigate the risks associated with nearshoring, companies in the sporting goods industry are advised to undertake a detailed analysis of various factors at both the product and country levels.

Firstly, companies should assess how prone they are to supply chain disruptions, as well as economic considerations. Additionally, it is important to ensure whether the nearshore country meets the requirements or not for raw materials and components, and has the appropriate capabilities and capacity. A comprehensive analysis should be conducted, considering a wide range of factors to determine the financial impact, feasibility, and potential government incentives.

2.2.2.4 Investments in the Industry: Capitalizing the Potential

The global sporting goods and sports apparel markets have experienced remarkable expansion over the past few years, and this trend is expected to continue. The industry has also proven resilience in economic downturns, recovering at a faster pace than other industries. This growth has drawn the attention of private investors and has sparked and increased in venture capital, private equity transactions, and M&A activity.

The main areas of focus for these investors have included outdoor categories, connected fitness equipment, athleisure and activewear, and sustainable sportswear, as shown in the figure below.

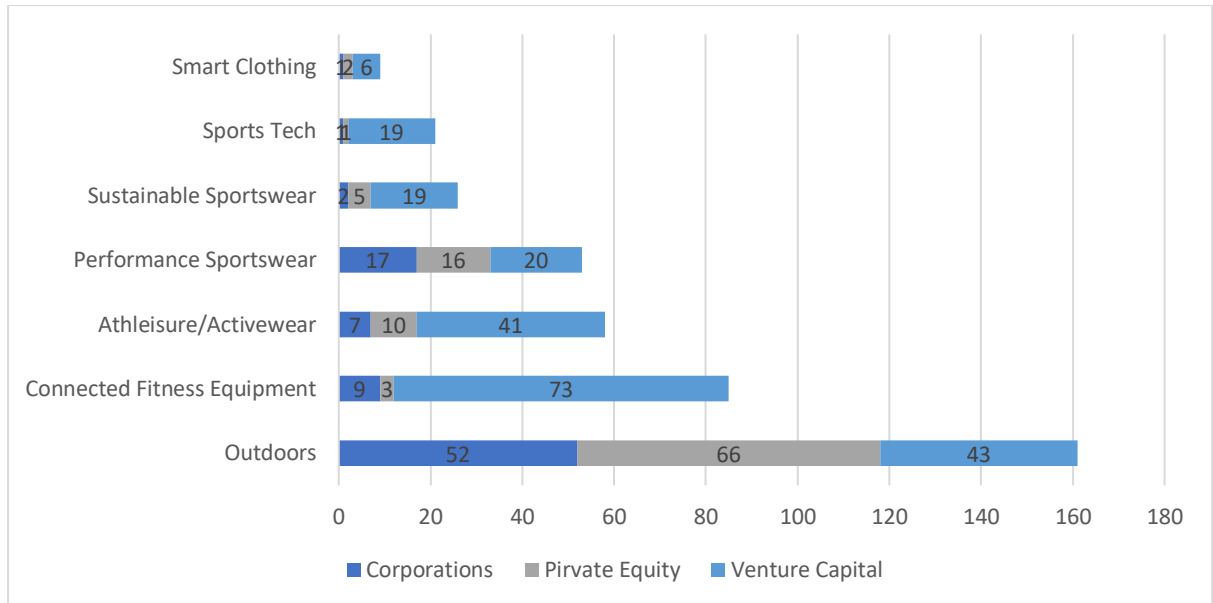


Figure 2: Number of Deals From 2016 to 2021 across Categories and Investor Types
Source: McKinsey & Company

We observe that the most active investment category from 2016 to 2021 was outdoor gear, with 161 deals. Connected fitness equipment has also experienced a high level of activity, with 85 deals, while athleisure recorded 58 transactions. Interestingly, there were 26 deals for sustainable sportswear brands, compared with 53 for performance sportswear.

However, private investment is challenging in a market characterized by the dominance of high-performing brands. McKinsey & Company suggests that investors should focus on three main priorities to overcome this challenge. Firstly, investors should aim to build a portfolio of complementary brands, enabling both to reduce risk and compete more effectively with leading brands. Secondly, investors must emphasize digital investments, particularly in building communities and personalized experiences for consumers. Thirdly, by employing large-scale data analytics to assist investors in making better informed decisions and maximizing the full potential of the firms in their portfolio.

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3. Company Overview

3.1 History Background

Nike, Inc. is a multinational corporation with headquarters in Beaverton, United States, which focus on the design, development, marketing and selling of athletic footwear, apparel, equipment, and accessories worldwide.

In 1964, Bill Bowerman, a coach at the University of Oregon, and his track athlete Phil Knight co-founded a company under the name of “Blue Ribbon Sports, initially intended to operate as the official United States distributor for the Japanese shoemaker Onitsuka Tiger (now known as ASICS).

After a few prosperous years, Bowerman and Knight decided to take their enterprise to the next level by developing and manufacturing their own shoes. Hence, in 1971, the founders severed ties with Onitsuka Tiger and in that same year, the company rebranded as Nike and released its first pair, which contained the now global renowned Swoosh logo.

From there on, the story of Nike’s narrative unfolded as a tale of continuous growth. Bolstered by brilliant marketing initiatives, such as the “Just do It” campaign, and strategic partnerships with young athletes that would eventually achieve worldwide recognition, the company became the largest sportswear business in America in 1989. As it stands in 2023, Nike is the most valuable brand in the sports industry, being the world’s largest seller of athletic footwear and apparel.

3.2 Business Overview

Nike, Inc. divides its operations into brands, product lines, distribution channels and geographic regions. This allows us to better understand its largest sources of revenues, have a better perspective of how the company is performing in different markets and determine whether or not it is reaching its consumer target objectives.

Concerning Nike brands, the company reports separate stand-alone results for the Nike brand and Converse. Products under the Jordan brand are included in the Nike brand operating results. According to Nike, Inc. 2023 annual report, Nike brand represented 95.3% of revenues, while Converse accounted for 4.7%.

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Nike's product line includes sports performance and "sportstyle" products across six key categories: Running, Nike Basketball, the Jordan brand, Football, Training and Sportswear. Despite having a wide array of product categories, its revenues are reported by distinguishing between Footwear, Apparel and Equipment. In 2023, Footwear accounted for 68% of the total Nike brand revenues, while Apparel and Equipment contributed with 28% and 4% respectively.

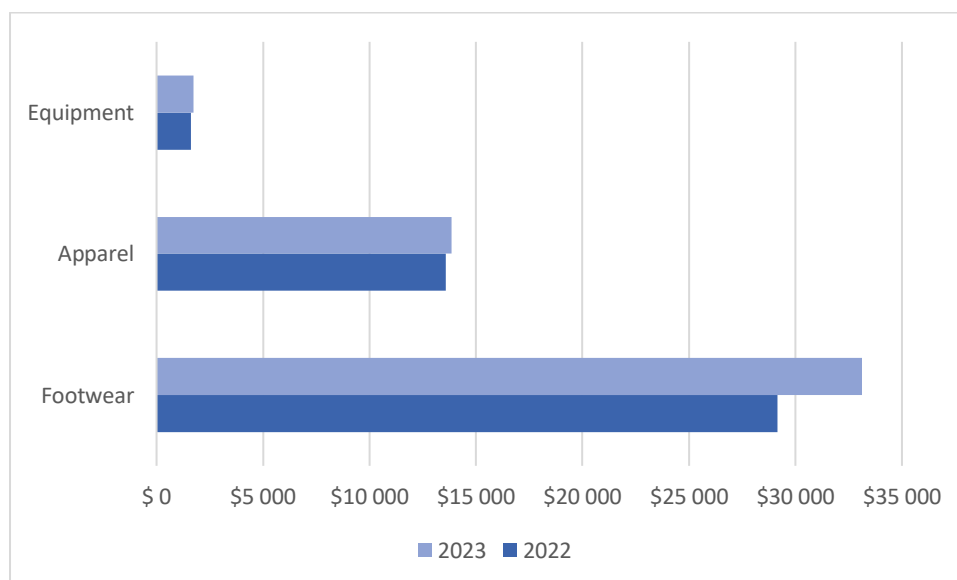


Figure 3: Divisional Revenue (Million \$)
Source: Nike Annual Reports of 2022 and 2023

As observable in the figure above, while footwear continues to hold the largest share in terms of sales, it also stands out as the highest growing segment, with a remarkable growth rate of 14%. This growth surpasses the 2% growth seen in apparel and the 6% growth observed in equipment.

Regarding its distribution channels, Nike sells its products through its own retail stores and digital platforms ("NIKE Direct" operations), but also through wholesale channels, which include national and regional sporting goods chains, department store chains, among others. During 2023, wholesale channel, representing 56% of total revenues, is the company's main source of revenue. Nonetheless, with a Consumer Direct Offense Strategy, in recent years the company has been focusing on the development of its direct-to-consumer channel, as shown in Figure 4, enabling to better control its customer experience. NIKE Direct contributed for the remaining 44% of total revenues, representing a growth of approximately 14% in comparison

to 2022 year. As of 2023, the company has 1,032 stores, of which 369 are located in North America and 136 are Converse stores.

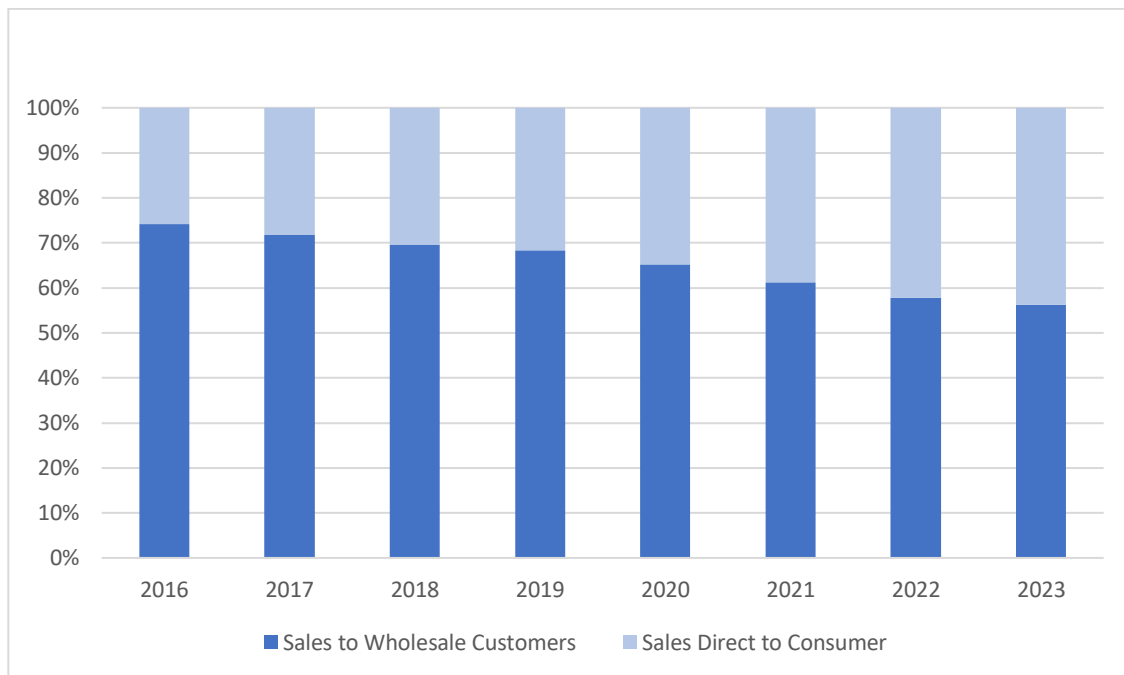


Figure 4: Revenue by Channel (%)

Source: Nike Annual Reports from 2016 to 2023

From a geographic segment perspective, Nike brand reportable operating segments are: North America, Europe, Middle East & Africa (EMEA), Greater China and Asia Pacific & Latin America (APLA). North America continues to be the company's biggest segment, as illustrated in the Figure 5, generating 44% of the firm's revenue, followed by Europe, Middle East & Africa (28%), Greater China (15%) and Asia Pacific & Latin America (13%). The region of Greater China was the only one where revenue experienced a decline (4%) from 2022 to 2023. This decrease is attributed to a combination of factors, including supply chain constraints, government restrictions related to COVID-19, and evolving marketplace dynamics. The revenue increased in all other markets, although the top market contributors for the revenue growth was the Europe, Middle East & Africa, which registered a growth of 21% currency-adjusted, driven by the growth in all key categories.

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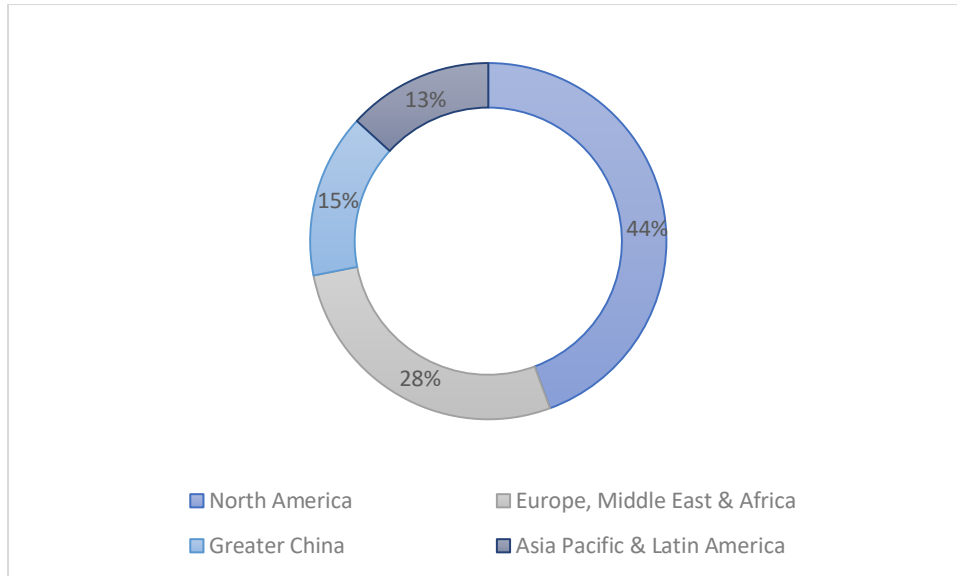


Figure 5: Revenue Distribution by Market Segment, 2023 (%)
Source: Nike’s Annual Report 2023

To minimize production costs, all of the company’s footwear and apparel products are manufactured outside the U.S by independent manufacturers, primarily located in Asia. Regarding footwear, as of 2023, Nike is supplied by 123 footwear factories across 11 countries with Vietnam, as shown in Figure 6, representing the largest sourcing country (50%), followed by Indonesia and China which manufactured approximately 27% and 18% of total Nike Brand footwear production, respectively. Concerning apparel, the supply base is more diversified. The company is supplied by 291 factories in 31 countries, where Vietnam (29%), China (18%) and Cambodia (16%) are the top manufacturers, as illustrated in the figure below.

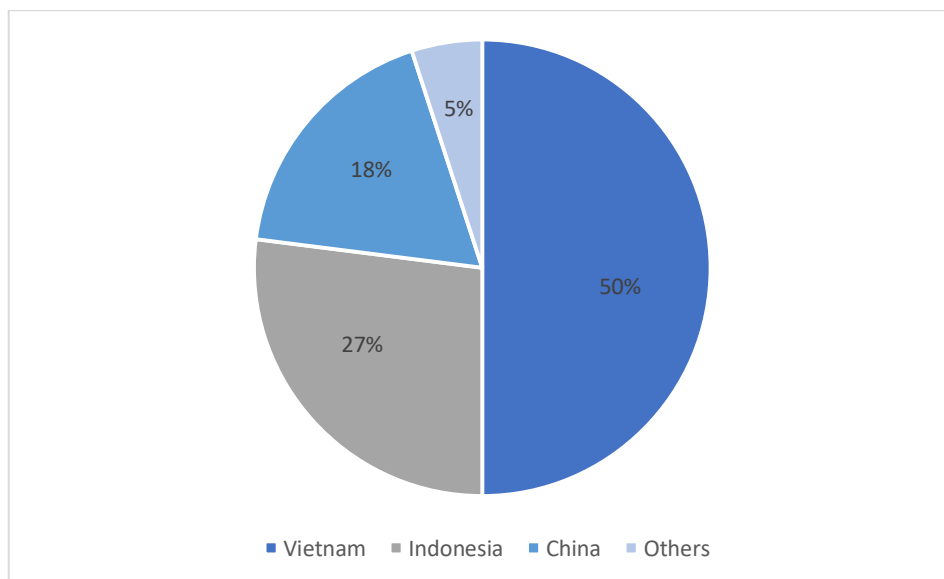


Figure 6: Footwear Manufacturing Distribution, 2023 (%)
Source: Nike's Annual Report 2023

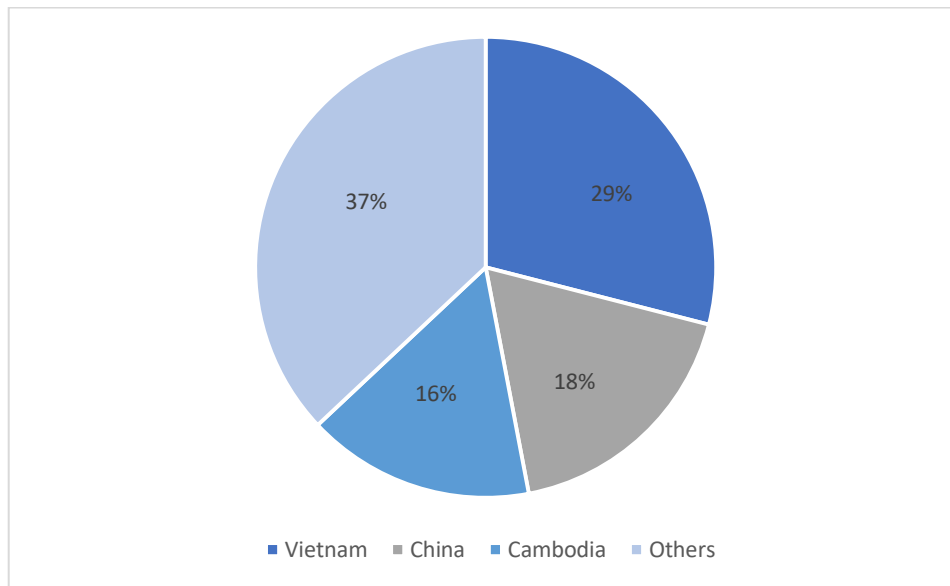


Figure 7: Apparel Manufacturing Distribution, 2023 (%)
Source: Nike's Annual Report 2023

3.3 Major Players in the Sporting Goods Industry: A Snapshot

The rivalry in the athletic apparel and footwear industry has significantly intensified over the past few years, and is currently characterized for being fiercely competitive, having a wide range of market niches.

The ever-changing consumer preferences and technological advancements in the athletic and leisure footwear, apparel, and athletic equipment markets, aligned with intense competition, constitute one of the company's key risk concerns in its operations, being crucial for Nike to keep a close eye on industry trends and innovate to stay ahead of the competition.

As clearly depicted in the graph below, Nike has been constantly ranked as the globe's leading seller of athletic footwear and apparel. It is worth noting that to ensure a comprehensive and standardized comparison, the revenue performance of Puma and Adidas has been meticulously converted to USD applying the exchange rate as of May 31st, sourced from Bloomberg, which were 1.0638.

EQUITY VALUATION OF NIKE, INC.

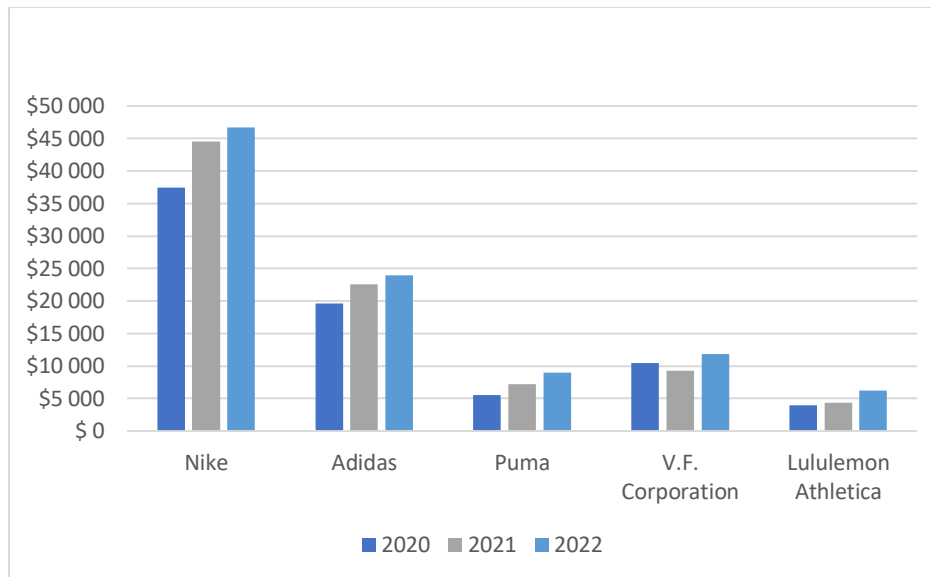


Figure 8: Revenues (in Million \$) of Nike and its Main Competitors
Source: Yahoo Finance. Own Calculations

We observe that Adidas is the most prominent competitor of Nike. Additionally, there are several smaller-sized competitors in the market such as VF Corp, Asics, Puma, Under Armour and Lululemon Athletica, who mostly operate in the US and European markets. In Asia, Li Ning is the key competitor.

Nike has been able to outperform all its competitors while consolidating its position in the majority of the markets they operate, largely due to its commanding position in North America, which is the sports industry most valuable region.

3.4 SWOT Analysis

Through the application of the SWOT Analysis, we will gain valuable insights into Nike's competitive position as we assess and evaluate the company's strengths, weaknesses, opportunities, and threats.

Table 2: SWOT Analysis

Strengths	Weaknesses
Strong brand awareness and brand value	Dependence on the U.S. market
Celebrity partnerships	Outsourcing of Production
Diverse brand portfolio	Labor Conditions in Overseas Factories
Opportunities	Threats
Emerging Markets	Fierce Competition

Digitalization	Counterfeit Goods Market
Artificial Intelligence Disruption	Evolving Consumer Preferences

Source: Own Elaboration

Strengths

With a top of the mind recall among consumers, particularly among the youngsters, Nike is one of the most recognizable brands around the globe. The iconic swoosh and the catchphrase “Just do it” are powerful status symbols and consequently, nowadays, when people think about stylish, sporting footwear, Nike is the first name that comes to mind. As of 2022, according to Statista, the company is valued at more than 33 billion U.S. dollars with a market share of 27,4% on the worldwide athletic footwear market, being the most valuable apparel brand in the world.

Furthermore, the company has several legendary partnerships from various sports with high-profile athletes. Cristiano Ronaldo, Michael Jordan, Tiger Woods, Serena Williams, LeBron James are just some of the superstars who helped drive the company to customers consciousness. Through collaborations with elite players, Nike is able to have a bigger impact on its message and inspire people to believe that anyone can be an athlete.

Although Nike’s dominant market position, the company has a wide variety of products under powerful trademarks beyond that. Nike-centric sub-brands like Nike Golf, Nike Pro, Air Force, Nike Dunk, Air Max, Nike Tiempo as well as subsidiaries like Jordan and Converse allows the company to adapt to possible abrupt changes in consumer’s preferences.

Weaknesses

Despite Nike’s worldwide popularity, the company still has a high dependency on the U.S market. For fiscal year 2023, Nike Brand sales in the United States accounted for approximately 44% of total revenues, which demonstrates that the company heavy relies on this region for sales and growth. If American tax or legal policies were to alter, in any way affecting Nike’s ability to sell on the U.S market, the firm’s profit will be severely harmed.

Moreover, Nike has frequently fallen under fire for the poor labor conditions in its overseas factories, severely damaging its brand image. Indeed, the term “Sweatshops” is used to mockingly describe the deplorable conditions in its overseas manufacturing facilities.

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Another drawback that comes from having worldwide factories is the vulnerability associated with outsourcing manufacturing operations. Consequently, the company has limited control on the quality of their products and issues related to standard compliance, quality assurance or other problems may arise due to this lack of direct control.

Opportunities

While Nike already has a presence in emerging markets, there is still tremendous potential for expansion there. For instance, the Asia-Pacific area, which is the second largest sportswear market worldwide, is expected to overthrow North America, in the medium to long term, and became the leading market of the sports good industry. The rising economic prosperity in these regions, alongside with the huge interest in sports could represent a good opportunity to Nike expand its reach and reduce dependence on the U.S market.

Moreover, mainly because of the pandemic, digital commerce has been increasing over time. Optimizing its direct-to-consumer channels, which means shifting its focus to digital business, the company will be able to provide a better customer experience while increasing its profit margins.

Furthermore, in the contemporary era, artificial intelligence has emerged as a groundbreaking force, transforming industries, and disrupting traditional business models. This presents a tremendous opportunity for Nike as the embracing of artificial intelligence has the potential to revolutionize multiple aspects on its operations, from product design and manufacturing to customer engagement and marketing.

Threats

The athletic footwear, apparel and equipment industry is highly competitive in the United States as well as on a worldwide basis. Consequently, the fierce competition along with the rapid changes in technology, a reduction in barriers to the creation of new footwear and apparel companies and the changes in customers preferences could decrease the demand for Nike's products, having a negative impact on the company margins.

In addition to the above mentioned threat, there is the propagation of the counterfeit goods market, being Nike one of the most counterfeited brands in the world. Growing internet usage, the urge and desire amongst the population to own products from such popular brands and the

poor protection of intellectual property and technology in the countries where most of the manufacturing is carried out are some of the key reasons that have contributed to a growth in the trade in counterfeit goods. Aside from lesser revenue and sales generation, counterfeits harm the company's reputation due to poor product quality and reduce consumer confidence in branded products.

Moreover, since consumer preferences and trends are constantly changing, Nike needs to stay attuned to these changes in order to remain relevant. Shifts in fashion, lifestyle choices or sustainability concerns are some of the examples that can impact consumer demand for Nike products. Failure to adapt and anticipate emerging trends can lead to a decrease in sales and diminished market share.

3.5 Porter's Five Forces Analysis

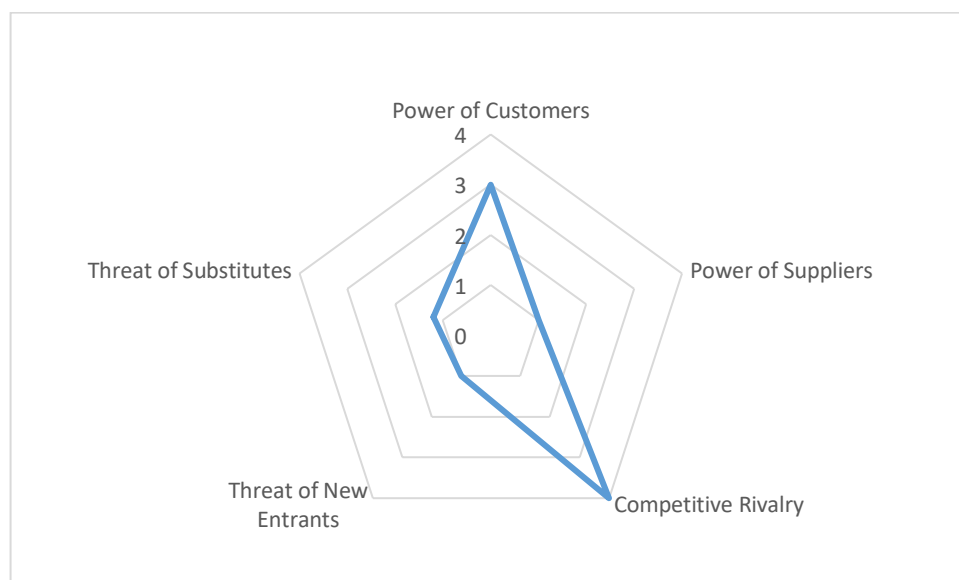


Figure 9: Porter's Five Forces
Source: Own Elaboration

Power of Customers – Medium

Since there is a wide variety of brands to choose from in the sporting goods industry, there are low switching costs from one brand to another. Nowadays, with the advancement of technology, customers have a lot of information, making it easy for them finding what they are looking for at the best price/quality ratio. However, the small size of individual buyers

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minimizes their individual forces on the company. Thus, the bargaining power of customers is moderate within this industry.

Power of Suppliers – Low

There are numerous suppliers and very little differentiation among them in the sporting goods industry, which makes supplier's bargaining power non-existent. Some of them are, in fact, very small, which represents a weakness for them as they do not have negotiation power. Furthermore, sportswear companies have the possibility to switch to other suppliers easily, due to the worldwide network of cheap labor on various continents.

Competitive Rivalry – High

As previously stated, sportswear is a highly segmented industry, composed by numerous players, with different sizes, fiercely competing to increase their market share. Even for small firms, the rise of e-commerce allowed them to expand their reach, hence increasing their sales while minimizing costs. Brand identity, customer loyalty along with innovative products and, a strong marketing and advertising strategies, are key factors that drives consumer's preferences.

Threat of New Entrants - Low

Due to the extremely high investment requirements in the whole of its business - from the design and marketing of the product to the production and distribution - that new entrants need in order to compete against the perennial "heritage brands", such as Nike or Adidas, the barriers to entry in the sportswear industry are generally high. Additionally, achieving economies of scale in this industry is challenging, being the threat of new entrants further weakened by this factor. Even with the expansion of ecommerce that led to the increase of online small-size competitors, they face a lot of issues in the supply chain. The combination of these factors suggests that the threat of new entrants is low.

Threat of Substitutes – Low

As previously stated, the sporting goods industry is characterized by a wide number of competing brands under a wide range of prices. The big availability of comparable goods in the market and the facility each customer has to buy from a specific brand results in a high

threat of substitution in this industry. However, by keeping up with fashion tendencies combined with a strong brand identity and stunning marketing campaigns, Nike has been able to mitigate the threat from substitutes to a substantial extent.

3.6 Stock Performance

Nike, Inc. is a public quoted company since December 1980 and is currently listed on the New York Stock Exchange (NYSE). Nowadays, Nike has become an integral part of various prestigious indices such as the S&P 500, NYSE Composite, Dow Jones Industrial Average.

Following a period of steady growth from 1980 to 1995, the company's growth trajectory gained significant momentum in the subsequent years. According to data retrieved from Yahoo Finance, at the end of the May 2017, Nike's share price stood at \$52.99. Remarkably, at the end of May 2023, it had surged to \$105.26, reflecting an impressive CAGR of 12.12%. It is important to note that, over the same period, the Nike's CAGR exceeded the performance of the S&P 500 (9.60%), NYSE Composite (4.25%), and Dow Jones Industrial Average (7.77%).

In comparison with its peers, Nike was able to outperform Adidas (ADS.DE), Under Armour (UAA), VF Corporation (VFC), and Puma (PUM.DE) which had a CAGR of -1.93%, -15.03%, -16.46% and 4.03%, respectively. This highlights Nike's strong and sustained growth over time, reinforcing its position as a top-performing company.

However, as depicted in the figure below, Nike's stock price has been falling since its peak in 2021 due to market volatility. Various economic and geopolitical factors, such as global supply disruptions, inflation, uncertainty surrounding the interest rates, have contributed to the market instability, leading to fluctuations in stock prices, including Nike's company.

EQUITY VALUATION OF NIKE, INC.

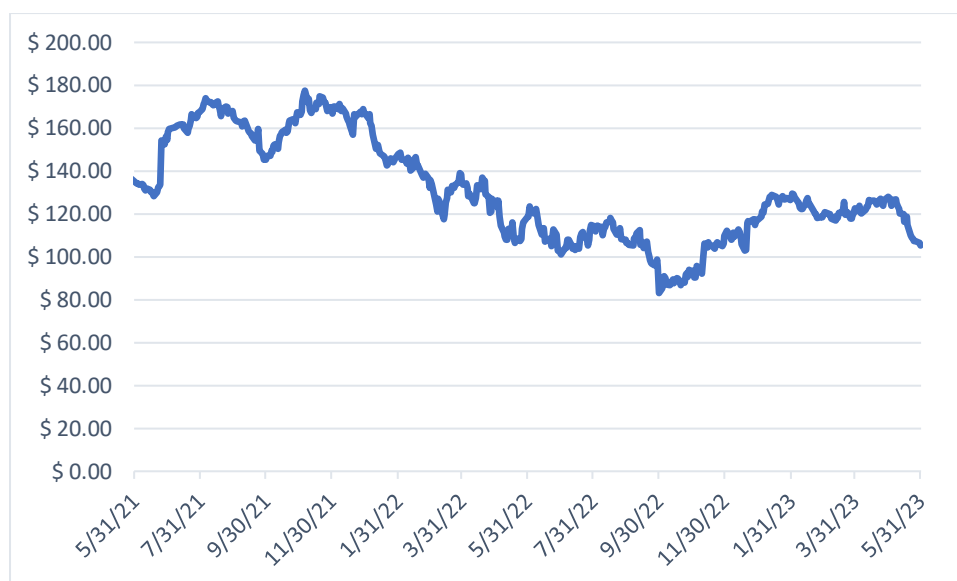


Figure 10: Nike's Stock Performance from May 2021 to May 2023

Source: Yahoo Finance

3.7 Shareholder Structure

Nike has a dual-class share structure, comprising of Class A Common Stock, that are publicly traded and are not available on the open market; and Class B Common Stock, that are traded on the New York Stock Exchange under the ticker symbol NKE. Class A shares are convertible into Class B shares on a 1:1 ratio. However, Class A owners have the voting rights to elect 7 out of 10 members of NIKE's board, meaning Class A shareholders effectively control the company.

Nike, Inc. currently has approximately 1.225 billion Class B shares outstanding, owned by both non-institutional holding companies and institutional investors. According to Yahoo data for May 2023, institutional investors represent by far the largest investor group, holding 83.65% of their shares outstanding. The Vanguard Group, Inc., with 108.6 million shares, owns the biggest stake in Nike's ownership among the institutional investors, representing 8.87% of shares outstanding, followed by BlackRock Inc. and State Street Corporation, with 7.06% and 4.39% respectively. The substantial institutional ownership of Nike serves as a strong indicator of its potential as a promising investment, given these institutions' strong track record in managing assets. Additionally, 1.26% of shares are held by insiders.

The following table presents the distribution of shares among the major institutional investors of Nike, Inc.

Table 3: Nike's Shareholder Structure

	Number of Shares	% of Shares
Vanguard Group, Inc.	108 646 446,00	8,87%
BlackRock Inc.	86 463 339,00	7,06%
State Street Corporation	53 762 680,00	4,39%
Wellington Management Group, LLP	32 180 585,00	2,63%
Morgan Stanley	29 262 043,00	2,39%
Geode Capital Management, LLC	22 478 963,00	1,83%
ALLIANCEBERNSTEIN L.P.	20 878 182,00	1,70%
Other (Free Float)	871 402 118,00	71,13%
Total	1 225 074 356,00	100,00%

Source: Nike's Annual Report of 2023, Yahoo Finance

3.8 Financial Analysis

Before delving into the valuation of Nike, Inc, it will be performed a comprehensive and detailed financial analysis of the company to gain a deeper understanding of its overall financial performance over the last five years. Therefore, it will be examined three different sections of the company, namely its Profitability, Liquidity and Solvency.

Each analysis will deliver varied angles on Nike's financial position, providing us valuable insights into its ability to generate profits, meet short-term obligations, and manage long-term stability, respectively.

3.8.1 Profitability

Table 4: Profitability Ratios

	2019	2020	2021	2022	2023
ROA	17%	8%	15%	15%	14%
ROIC	36%	19%	40%	35%	27%
ROE	45%	32%	45%	40%	36%

Source: Nike's Annual Reports from 2019 to 2023

Return on Assets (ROA), calculated by dividing the Net Income by Total Assets, represents how effectively a company manages its assets to generate profits. Examining Nike's ROA for 2023, which stands at 14%, reflects a decline in the company's ability to convert investments into net income compared to the previous two years.

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Return on Invested Capital (ROIC) measures how well a company generates returns from the capital invested in its operations. Nike's ROIC has witnessed significant fluctuations over the past five years. From 2019 to 2020 it went from 36% to 19%, mainly attributed to the global economic downturn caused by the COVID-19 pandemic. Remarkably, in 2021, the company rebounded, with its ROIC soaring to 40%, demonstrating its resilience and agility in adapting to adverse market conditions. In 2022, Nike's ROIC remained robust at 35%, indicating sustained operational efficiency and capital allocation. However, in 2023, the company had a slight decrease in its ROIC, settling at 27%. While it represents a decrease compared to the previous year, it is still a commendable rate, given the complexities and uncertainties prevailing in the market.

Lastly, Return on Equity (ROE), which evaluates a company's profitability and efficiency in generating returns for its shareholders, had a similar pattern as the ROIC. It went from 45% to 32% in 2019 and 2020 respectively, but rebounded in 2021 with a ROE of 45%. In 2022, it remained solid at 40%, but slightly declined to 36% in 2023. It is important to note that a higher or lower ROE does not always indicate a positive or a negative signal to investors. A downward trend in ROE can be driven by two factors: decreasing profitability or decreasing debt. In order to gain valuable insights and a deeper understanding of what drive Nike's ROE, it will be conducted a Dupont Analysis.

3.8.1.1 DuPont Analysis

The DuPont Analysis provides a comprehensive breakdown of a company's ROE, by dissecting it in three key financial metrics: net profit margin, asset efficiency and the equity multiplier. It can be calculated as follows:

$$ROE = \frac{Net\ Income}{Sales} * \frac{Sales}{Total\ Assets} * \frac{Total\ Assets}{Total\ Shareholder's\ Equity} \quad (16)$$

Through the analysis of the initial term in this equation, which is the net profit margin, we assess the effectiveness of a company's overall operation profitability. The asset efficiency, which is the second term, reveals how efficiently a company manages its assets to generate profits. Lastly, the equity multiplier allows to explore the impact of debt financing on company's profitability, assessing the level of risk associated with its capital structure.

The subsequent table displays the results obtained from the decomposition of the ROE by applying the Dupont Analysis.

Table 5: DuPont Analysis

DuPont Analysis	2019	2020	2021	2022	2023
Net Profit Margin	10%	7%	13%	13%	10%
Asset Efficiency	1,65	1,19	1,18	1,16	1,36
Equity Multiplier	2,62	3,89	2,96	2,64	2,68
ROE	45%	32%	45%	40%	36%

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Considering the table above, the decline in ROE from 2021 to 2022 and subsequently to 2023 can be attributed to two key factors: a decrease in the net profit margin from 13% to 10% in 2023 and the decline in the equity multiplier from 2.96 to 2.64 in 2022. These factors, in combination with the relatively stabled asset efficiency, resulted in the observed decrease in ROE over the analyzed period.

3.8.2 Liquidity

Table 6: Liquidity Ratios

	2019	2020	2021	2022	2023
Current Ratio	2,1	2,5	2,7	2,6	2,7
Quick Ratio	1,1	1,4	1,9	1,6	1,6
Cash Ratio	0,6	1,0	1,0	0,8	0,8

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Starting with the Current ratio, it measures a company's capacity to settle its current liabilities with its current assets. As depicted in the table above, Nike has consistently maintained a Current ratio higher than 2, meaning that the company was able to cover its short-term obligations with its short-term assets. During the last five years, the company demonstrated an overall upward trajectory in its liquidity position, with the exception of the year 2022. This positive trend indicates a reduced dependence on external financing or operating cash flows to fulfill short-term obligations, highlighting the company's strengthened financial position.

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The Quick ratio provides further insights into the company's liquidity position by measuring its ability to cover short-term liabilities with its quick assets, which exclude prepaid expenses and inventories. Besides the fact that there are significant differences between the Current ratio and Quick ratio, the table shows that over the five-year period, the ratio was always above 1 meaning that the company can pay off its current liabilities if we only consider readily available assets that could be converted into cash quickly.

Lastly, the Cash ratio specifically evaluates a company's ability to cover short-term obligations with its available cash and equivalents, excluding other liquid assets. From 2019 to 2023, the Cash ratio remained consistently below 1, except for the year 2020 and 2023. This highlights Nike's reliance on other sources of liquidity to meet its short-term financial commitments.

3.8.3 Solvency

Table 7: Solvency Ratios

	2019	2020	2021	2022	2023
Debt-to-Equity Ratio	1,62	2,89	1,96	1,64	1,68
Debt Ratio	62%	74%	66%	62%	63%
Equity Ratio	38%	26%	34%	38%	37%
Interest Coverage Ratio	97,39	35,00	26,48	32,56	> in 2022

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Over the analyzed period, both the Debt-to-Equity Ratio and the Debt Ratio demonstrated a similar pattern, peaking in 2020, before stabilizing in the subsequent years. The Debt-to-Equity Ratio, which measures the proportion of a company's financing from debt relative to equity, saw a notable spike from 1.62 in 2019 to 2.89 in 2020. This surge, reflecting heightened leverage, is linked to the perturbations caused by the COVID-19 pandemic. Nevertheless, the ratios gradually moderated, indicating a strategic effort by the company to realign its financial structure.

In contrast, the Equity Ratio, representing the proportion of assets financed by equity, followed a distinct trajectory. Beginning at 38% in 2019, it experienced a dip to 26% in 2020, before displayed a consistent upward trend in the subsequent years, reaching 37% in 2023. This

evolution illustrates Nike's adaptability and solid financial management, reflecting a company that is conscious of maintaining a balanced capital structure while ensuring its financial stability.

The Interest Coverage Ratio, serving as a metric of a company's ability to cover interest expenses through its operating earnings, demonstrated impressive values from 2019 to 2022, indicating a robust ability to service its interests' obligations. However, in 2023, the ratio is presented as "> in 2022", implying a unique scenario. In this instance, interests' payments were lower than interests' earnings, leading to an unconventional situation where the formula applied to calculate this ratio cannot be directly applied.

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4. Valuation

For the valuation of Nike, Inc., the approaches that will be chosen to perform it are the Discounted Cash Flow valuation, more specifically, the Firm Valuation model (Free Cash Flow to the Firm), and Relative Valuation.

Regarding the Firm Valuation model, Nike's valuation will be based on available financial historical performance between 2019 and 2023 allowing to, more accurately, identify the trends of the business.

For the following years, some information is not publicly available, and therefore some data will be based on assumptions to both company's expected growth and the industry trends. It will be considered a 5-years forecasting period from 2024 to 2028. The mentioned period was chosen due to the unpredictability of macroeconomic circumstances and consequently it is impossible to predict with a high degree of accuracy what will happen beyond that.

Furthermore, Relative Valuation will be used as a complement to the Firm Valuation model. Firstly, a peer-group composed by companies in the same industry will be selected, and then a multiples analysis will be performed.

4.1 Valuation Assumptions

4.1.1 Revenues

The first assumption we made in our analysis was regarding the projection of Nike's revenues. This assumption holds significant importance as it impacts other assumptions that are contingent upon this variable.

Based on the projections of the International Monetary Fund, we will assume revenues will grow at the 2022-2027 real annual growth average rate, which is 3.11% (Appendix A). It is worth noting that the company's digital commerce revenue has witnessed an impressive growth rate, with its share of total revenue expanding from 31% to 44%, over the past five years. Therefore, Nike's shift of focus towards digital commerce aligned with a significant physical store presence to establish brand awareness, serve as means to positioning the company for a sustained revenue growth.

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With this in mind, we projected Nike's revenues for the next five years, as detailed in table 8.

Table 8: Revenue Projections

(Million \$)	2024F	2025F	2026F	2027F	2028F
Revenues	\$52 809,17	\$54 450,83	\$56 143,52	\$57 888,84	\$59 688,41
Annual Growth Rate					3,11%

Source: IMF World Economic Outlook of 2023, Nike's Annual Reports from 2019 to 2023.

Own Calculations

4.1.2 EBITDA Margin

The calculation of EBITDA (Earnings Before Interest, Taxes, Depreciations and Amortizations) is predicated on the historical EBITDA margin observed over the past five years. This presupposes that operating expenses increase proportionally with revenue. In this regard, we have computed the EBITDA margin for the years ranging from 2019 to 2023, culminating in an average EBITDA margin of 14.41% (Appendix B).

The anticipated Nike's EBITDA for the next five years is presented below, in Table 9, based on the Average EBITDA margin calculated in Appendix B.

Table 9: EBITDA Projections

(Million \$)	2024F	2025F	2026F	2027F	2028F
Revenues	\$52 809,17	\$54 450,83	\$56 143,52	\$57 888,84	\$59 688,41
EBITDA Margin	14,41%	14,41%	14,41%	14,41%	14,41%
EBITDA	\$7 608,70	\$7 845,22	\$8 089,11	\$8 340,57	\$8 599,85

Source: Nike's Annual Reports from 2019 to 2023, Own Calculations

4.1.3 Depreciation and Amortization Costs

For the projection of Nike's Depreciation and Amortization, a similar methodology to that employed in EBITDA's calculations were adopted. The historical annual rates of Depreciation and Amortization over Revenues were determined for the period spanning 2019 to 2023. Thereafter, the average ratio of this period, denoted by 2.02% and presented in Appendix C,

was applied to the forecast period. Considering the previously estimated revenues as a basis, the following values were then obtained:

Table 10: Depreciation & Amortization Projections

(Million \$)	2024F	2025F	2026F	2027F	2028F
Revenues	\$52 809,17	\$54 450,83	\$56 143,52	\$57 888,84	\$59 688,41
D&A / Revenues	2,02%	2,02%	2,02%	2,02%	2,02%
D&A	\$1 066,47	\$1 099,62	\$1 133,80	\$1 169,05	\$1 205,39

Source: Nike's Annual Reports from 2019 to 2023, Own Calculations

4.1.4 EBIT

The EBIT (Earnings Before Interest and Taxes) is a crucial component in the valuation process that will be conducted using the Free Cash Flow to the Firm (FCFF) model. To compute the EBIT, two key inputs are required, namely the EBITDA and the Depreciation and Amortization costs, both previously estimated.

As shown in the table below, EBIT was calculated by subtracting the value of the Depreciation and Amortization costs from the EBITDA.

Table 11: EBIT Projections

(Million \$)	2024F	2025F	2026F	2027F	2028F
EBITDA	\$7 608,70	\$7 845,22	\$8 089,11	\$8 340,57	\$8 599,85
D&A	\$1 066,47	\$1 099,62	\$1 133,80	\$1 169,05	\$1 205,39
EBIT	\$6 542,23	\$6 745,61	\$6 955,30	\$7 171,52	\$7 394,46

Source: Nike's Annual Reports from 2019 to 2023, Own Calculations

4.1.5 Corporate Tax Rate

One of the significant concerns that the company faces is the uncertainty and potential changes in the U.S. tax rate. As a result, the corporate tax rate considered for the forecasting period is expected to remain unchanged at 13.9%, the average rate reported by Nike in its financial statements for the last five years (Appendix D). This assumption was made to account for potential fluctuations in the tax rate and their potential impact on the company's financial performance.

4.1.6 Terminal Growth Rate

As stated in the literature review, when applying the FCFE model, the terminal value can be reached by assuming that starting on the last year of the forecast (after 2028), the company will generate cash flows at a constant growth rate until perpetuity. This constant growth rate is the terminal growth rate and can be computed by applying the formula presented below:

$$TGR = (1 + \text{Expected Inflation Rate}) * (1 + \text{Expected GDP Growth Rate}) - 1 \quad (17)$$

As previously mentioned, Nike presents its revenue distribution across different regions, such as the EMEA region (Europe, Middle East & Africa), presenting challenges in determining the exact allocation of revenues. Given the lack of precise information regarding regional revenue breakdowns, and considering the extensive global presence of the company, operating in over 190 countries, we considered the world's expected GDP growth rate. According to the forecasts provided by the International Monetary Fund, expected GDP growth is estimated to be 3% after 2028 (first year of perpetuity).

Moreover, to ensure a more conservative and prudent approach in estimating the perpetuity growth rate, we opted for the United States inflation prospects. The North American region holds significant importance as a key market for Nike, contributing substantially to Nike's revenues and financial performance. Considering the U.S inflation rate forecasted to be 1.9%, indicating a more controlled and stable economic environment, aligns with our goal of ensuring a reliable and practical estimate for the terminal growth rate.

Hence, the calculated TGR is displayed in the table below, yielding a value of 4.96%.

Table 12: Terminal Growth Rate

Expected Inflation Rate	1,9%
Expected GDP Growth Rate	3,0%
TGR	4,96%

Source: IMF World Economic Outlook, April 2023. Own Calculations

4.1.7 Working Capital

The working capital is fundamentally described as the difference between a company's current assets and its current liabilities, which measures both the operational efficiency and short-term financial health.

“Accounts Receivable”, “Prepaid Expenses and Other Current Assets” and “Inventories” were the current operating assets considered for this calculation. In the current operating liabilities are included the “Notes Payable”, “Accounts Payable”, “Income Tax Payable” and “Accrued Liabilities”.

The forecasted working capital was estimated in accordance with Nike's average historical performance, expressed as a percentage of revenues (10.3%), from 2019 to 2023. The working capital variations for each year were calculated by subtracting the total working capital from the current year from the total working capital from the previous year. The details of the historical annual changes in working capital are shown in Appendix E.

Table 13: Working Capital Variations Projections

(Million \$)	2024F	2025F	2026F	2027F	2028F
Revenues	\$52 809,17	\$54 450,83	\$56 143,52	\$57 888,84	\$59 688,41
Total WC / Revenues	10,3%	10,3%	10,3%	10,3%	10,3%
Total WC	\$5 443,76	\$5 612,99	\$5 787,48	\$5 967,39	\$6 152,90
ΔWC	-\$252,24	\$169,23	\$174,49	\$179,91	\$185,51

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

4.1.8 Capital Expenditures

Capital Expenditures, commonly referred to as CAPEX, represents the funds used by a company with the purpose of acquisition, upgrade, or maintain fixed assets.

According to Nike's annual reports, over the last five years, these expenditures has constituted a percentage of annual revenue ranging from 1.56% and 2.9%. Henceforth, from 2024 to 2028, CAPEX will be estimated as the arithmetic average of its percentage of revenue from the previous five years (Appendix F).

The subsequent table displays the forecasted CAPEX considering the aforementioned assumption.

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Table 14: Capex Projections

(Million \$)	2024F	2025F	2026F	2027F	2028F
Revenues	\$52 809,17	\$54 450,83	\$56 143,52	\$57 888,84	\$59 688,41
CAPEX / Revenues	2,17%	2,17%	2,17%	2,17%	2,17%
CAPEX	\$1 144,83	\$1 180,42	\$1 217,12	\$1 254,96	\$1 293,97

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

4.2 Discounted Cash Flow of Nike, Inc.

4.2.1 Free Cash Flow to the Firm

As outlined in the literature review, the calculation of the FCFE requires the consideration of five components, namely EBIT, Corporate Tax Rate, Depreciation and Amortization, CAPEX and variations in Working Capital. Thus, after all the assumptions have been established and the variables computed, it is possible to determine the FCFE for the forecasted period (2024-2028), along with the perpetuity, as depicted in the table below, by applying the formula (2).

Table 15: Free Cash Flow to the Firm (2024 - Perpetuity)

(Million \$)	2024F	2025F	2026F	2027F	2028F	Perpetuity
EBIT	\$6 542,23	\$6 745,61	\$6 955,30	\$7 171,52	\$7 394,46	\$7 761,00
EBIT * (1 - tax rate)	\$5 632,97	\$5 808,08	\$5 988,64	\$6 174,80	\$6 366,76	\$6 682,36
(+) Depreciation & Amortization	\$1 066,47	\$1 099,62	\$1 133,80	\$1 169,05	\$1 205,39	\$1 265,14
(-) CAPEX	\$1 144,83	\$1 180,42	\$1 217,12	\$1 254,96	\$1 293,97	\$1 358,11
(-) ΔWC	-\$252,24	\$169,23	\$174,49	\$179,91	\$185,51	\$194,70
FCFE	\$5 806,84	\$5 558,05	\$5 730,83	\$5 908,98	\$6 092,68	\$6 394,69

Source: Own Calculations

4.2.2 Weighted Average Cost of Capital

The computed Weighted Average Cost of Capital (WACC) for Nike, Inc. is presented in the following table, along with the inputs that were estimated for the calculation of the model, according to formula (6). The underlying assumptions of each parameter are subsequently explained.

Table 16: Nike's Weighted Cost of Capital

Cost of Equity	9,20%
----------------	-------

Pre tax cost of debt	4,50%
Tax Rate	13,9%
Market Value of Equity (in million \$)	\$165 237
Market Value of Debt (in million \$)	\$14 696
Debt/(Equity + Debt)	8%
Equity/(Equity + Debt)	92%
WACC	8,77%

Source: Own Calculations

4.2.2.1 Cost of Equity

Nike's cost of equity was computed based on the previously introduced model CAPM, which considers three different inputs: risk-free rate, levered beta and the market risk premium, all described below. Through the CAPM formula (7) a cost of equity of 9.20% was estimated.

Table 17: Cost of Equity

Risk-Free Rate	3,65%
Levered Beta	1,11
Market Risk Premium	5,00%
Cost of Equity	9,20%

Source: Damodaran's Blogspot, Zacks Website. Own Calculations

4.2.2.2 Risk-Free Rate

The risk-free rate considered for the WACC calculations, as stated in the Literature Review, was the U.S. 10-year Treasury Bond. Based on data sourced by investing.com, as of 31st of May, the 10-year U.S. government bond was approximately 3.65%.

4.2.2.3 Levered Beta

Since Nike, Inc. is a public listed company, we obtained a levered beta of 1.11, according to information available on Zacks website dated to May 31, 2023.

4.2.2.4 Market Risk Premium

The market risk premium (MRP) assumed was retrieved from Damodaran's academic website as of July 2023, which listed the U.S. MRP at 5%.

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As noted earlier, Nike's approach to disclosing revenue distribution creates complexities in securing exact revenue allocation figures. Consequently, we decided to not incorporate the country risk premium (CRP) into its MRP.

4.2.2.5 Cost of Debt

The cost of debt was estimated following the Damodaran's approach of summing the default credit spread with the risk-free rate. According to NIKE, Inc. Annual report 2023, "We currently have long-term debt ratings of AA- and A1 from Standard and Poor's Corporation and Moody's Investor Services". Since the company has two distinct credit ratings, we further calculated the mean of the historical interest coverage ratio (X) in order to choose the company's default spread (Appendix G). Thus, based on Damodaran's non-financial service firms' ratings interest coverage ratio and default spread table (Appendix H), the default credit spread to consider is 0.85%. As a result, combining with the previously explained risk-free rate (3.65%), the pretax cost of debt is 4.50%.

4.2.2.6 Capital Structure

The market value of equity was calculated by multiplying the stock price per share (\$105.26) by the total number of shares outstanding (1.57 billion) at the end of May 2023, resulting in a market capitalization equal to \$165.237 millions.

Regarding the market value of debt, it was obtained from the company's 2023 annual report. The items considered were the following: 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.

Table 18: Capital Structure

	2023
Outstanding Shares	1 569 800 000
Outstanding Shares (in million shares)	1 569,80
Share price as of 31st of May, 2023	\$105,26
Market Value of Equity (Million \$)	\$165 237
Current Portion of Long-Term Debt	\$0
Current Portion of Operating Lease Liabilities	\$425
Long-Term Debt	\$8 927
Operating Lease Liabilities	\$2 786

Deferred Income Taxes and Other Liabilities	\$2 558
Market Value of Debt (Million \$)	\$14 696

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

4.2.3 Discounted Cash Flow – Valuation Results

Following the calculation of the TGR, forecasting the FCFF's for the period 2024-2028, and determining the WACC, we proceeded to compute Nike's Enterprise Value. This was achieved by summing the present values of all FCFF's (formula 3), yielding an Enterprise Value of \$133 018,37 million. Additionally, acknowledging the assumption of perpetual cash flow generation, we computed the Terminal Value, as highlighted in the literature review, employing formula (4). Afterward, an Equity Value of \$128 997,37 million was estimated by adding the value of Non-Operating Assets and subtracting the value of Financial Debt from the Enterprise Value (formula 5).

Finally, by dividing the projected Equity Value for the number of shares outstanding in 2023, we achieved the price per share of Nike, which amounted to \$82.17, as demonstrated in the table below. As you may see, we get a price below the prevailing market value for shares at that time.

Table 19: DCF-FCFF Model with the estimation of Nike's share price

(Million \$)	2023	2024 F	2025 F	2026 F	2027 F	2028 F	Perpetuity
FCFF	\$4 436,16	\$5 806,84	\$5 558,05	\$5 730,83	\$5 908,98	\$6 092,68	\$6 394,69
WACC							8,77%
TGR							4,96%
Terminal Value							\$167 897,58
Present Value		\$5 338,85	\$4 698,28	\$4 453,92	\$4 222,26	\$4 002,66	\$110 302,40
Enterprise Value	\$133 018,37						
(-) Debt	\$14 696						
(+) Non-operating Assets	\$10 675						
Equity Value	\$128 997,37						
Shares Outstanding (in million)	1569,8						
Price Target	\$82,17						

Source: Nike's Annual Report of 2023. Own Calculations

4.2.4 Sensitivity Analysis

Throughout the FCFF model, different assumptions were applied in each variable when assessing the Nike's share price, thereby impacting, in different magnitudes, the final forecast.

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Therefore, we selected two variables, WACC and TGR, to perform a sensitivity analysis, in order to understand in which measure these assumptions can influence the final share price. In our prior estimated model, we assigned a TGR of 4.96% and a WACC of 8.77%, which led to a share price of \$82.17 (*ceteris paribus*). As illustrated in the following table, these parameters were subjected to a variation from the initial values of $\pm 0.25\%$ for both WACC (between 8.27% and 9.27%) and TGR (between 4.46% to 5.46%).

Table 20: Sensitivity Analysis with WACC and TGR

		WACC				
		8,27%	8,52%	8,77%	9,02%	9,27%
TGR	4,46%	\$84,00	\$78,71	\$74,02	\$69,85	\$66,11
	4,71%	\$89,06	\$83,08	\$77,85	\$73,22	\$69,09
	4,96%	\$94,87	\$88,08	\$82,17	\$77,00	\$72,42
	5,21%	\$101,64	\$93,82	\$87,11	\$81,28	\$76,16
	5,46%	\$109,60	\$100,51	\$92,79	\$86,16	\$80,39

Source: Own Calculations

The analysis demonstrates that even slight variations in WACC and TGR yield significant effects on the estimated share price of Nike. Specifically, an increase in WACC corresponds to a decrease in Nike's share price (*ceteris paribus*), while an increase in TGR results in a higher share price (*ceteris paribus*). This observation highlights the intricacies and subjectivity involved in accurately estimating Nike's share price, as small fluctuations in the input variables significantly influence the final valuation.

4.3 Relative Valuation

Alongside the DCF model, a Relative Valuation was also performed as a complementary method. This approach allowed to assess and compare Nike's share price to other similar firms, providing an additional perspective on Nike's valuation.

Initially, before choosing the multiples, we focused on selecting the peer group for our valuation. For the selection, we considered all major players in the apparel and footwear market that directly compete with Nike, according to the company's annual report. The resulting peer group, which will serve as the basis for the relative valuation analysis, includes Adidas, Puma, Under Armour, Lululemon Athletica, and VF Corporation.

Afterwards, considering the extensive array of multiples outlined in the literature review (Table 1), the multiples chosen as the most relevant and meaningful for the analysis of the peer group were the Enterprise Value to Sales (EV/Sales), Enterprise Value to EBITDA (EV/EBITDA) and the Price-to-Earnings Ratio (P/E).

Table 21: Relative Valuation

Peer Group	PER	EV/EBITDA	EV/Sales
Adidas	44,51	16,21	1,37
Puma	19,74	10,41	0,76
VFC	55,55	26,09	1,09
Lululemon Athletica	44,38	18,92	4,92
Under Armour	8,38	7,18	0,54
Mean	34,51	15,76	1,73
Median	44,38	16,21	1,09
Enterprise Value		\$106 767,72	\$88 830,76
(+) Non-Operating Assets		\$10 675	\$10 675
(-) Financial Debt		\$14 696	\$14 696
Equity Value	\$174 979,90	\$102 746,72	\$84 809,76
Number of Shares Outstanding	1 569,8	1 569,8	1 569,8
Price per Share	\$111,47	\$65,45	\$54,03
Current Share Price (31/05/2023)	\$105,26	\$105,26	\$105,26
Upside/ Downside Potential	5,9%	-37,8%	-48,7%

Source: YCharts Website, Macrotrends Website, Nike's Annual Report of 2023. Own Calculations

The PE Ratio, the Enterprise Values, and EBITDA were sourced from the YCharts website, whereas the Sales data were retrieved from the Macrotrends website. To ensure coherence and precision in the analysis, all the aforementioned values were meticulously dated to May 31, 2023, aligning with the valuation date of Nike's shares that were previously calculated.

Based on the averaged values of the three chosen multiples, Nike's projected price per share as of May 31, 2023, was determined to be \$76.98. The substantial downside potential of around 26.87% implies that the prevailing market valuation at that particular time might be inflated, leading to an overestimation of Nike's true value.

4.4 Discussion of Results

Considering the application of both methods, the resulting outputs are as follows:

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Table 22: Valuation Results Summary

Share Price	As of 31/05/2023
DCF-FCFF	\$82,17
PER	\$111,47
EV/EBITDA	\$65,45
EV/Sales	\$54,03
Market Value	\$105,26

Source: Own Calculations

Through the application of the FCFF method, we obtained a price per share of \$82.17, implying a substantial downside potential of 21.93% relative to the prevailing market value. Therefore, based on the outcomes derived from the FCFF model, our recommendation to investors would be to sell Nike's shares as the results suggest an overvaluation of the company's stock price.

Further, the relative valuation analysis has resulted in contrasting outcomes, with one multiple indicating a share price above the market value and two multiples suggesting prices below it. Specifically, the PE Ratio yielded a share price of \$111.47, representing a premium of 5.9% relative to the market price. Conversely, employing the EV/EBITDA and the EV/Sales multiples we obtained a share price estimate of \$65.45 and \$54.03, indicating considerable devaluations of 37.8% and 48.7%, respectively, when concerning the current market value. However, considering the previously mentioned average of the three selected multiples, which resulted in an estimated share price of \$76.98, the downside potential stands at 26.87%. This suggests that Nike's share price was overvalued, being in conformity with the results obtained through the FCFF method.

Thus, based on the combined outcomes of both valuation models, we conclude that as of the May 31, 2023, Nike's share price was overvalued, being a good opportunity for investors to sell the stock.

5. Conclusion

The central objective of this research was to determine the fair valuation of Nike's shares on May 31, 2023, driven by the fundamental goal of delivering a trustworthy investment recommendation to Nike's investors. From the extensive array of valuation methodologies reviewed in the literature, our emphasis rested on the implementation of the Discounted Cash Flow (DCF) Valuation Model, specifically employing the Free Cash Flow to the Firm (FCFF) Model, and the Relative Valuation Model.

Regarding the DCF valuation, using the FCFF approach, we forecasted cash flows, considering different assumptions. These assumptions were meticulously tailored to align our projections with the prevailing global economic context and the specific dynamics in which Nike, Inc. operates.

In the Relative Valuation Model, we conducted a comparative assessment of Nike against a group of publicly traded companies operating within the same industry sector. This comparative analysis was executed through the employment of different multiples, specifically, the P/E Ratio, EV/EBITDA and the EV/Sales

Based on the final share prices obtained through both methodologies, that were both below the market value registered on the May 31, 2023 (\$105.26), we concluded that Nike's share price is overvalued. Consequently, our recommendation for investors is to sell Nike's shares.

Finally, we suggest conducting future valuations with meticulous consideration for additional insights into the global economic outlook, ideally synchronized with a period marked by enhanced stability in inflation rates.

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7. Appendixes

Appendix A: Average World GDP Development

	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F
World	6,3%	3,4%	2,8%	3,0%	3,2%	3,2%	3,1%
Real Annual Growth Average Rate							3,11%

Source: IMF World Economic Outlook, April 2023

Appendix B: Average Historical EBITDA's Margin

(Million \$)	2019	2020	2021	2022	2023
Revenues	\$39 117	\$37 403	\$44 538	\$46 710	\$51 217
EBITDA	\$5 492	\$4 234	\$7 734	\$7 515	\$6 774
EBITDA Margin	14%	11%	17%	16%	13%
Average of EBITDA Margin					14,41%

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Appendix C: Average Historical Depreciation & Amortization / Revenues

(Million \$)	2019	2020	2021	2022	2023
Revenues	\$39 117,00	\$37 403	\$44 538	\$46 710	\$51 217
Depreciation & Amortization (D&A)	\$720	\$1 119	\$797	\$840	\$859
D&A / Revenues	1,84%	2,99%	1,79%	1,80%	1,68%
Average of D&A / Revenues					2,02%

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Appendix D: Average Historical Corporate Tax Rate

	2019	2020	2021	2022	2023
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Corporate Tax Rate	16,1%	12,1%	14,0%	9,1%	18,2%
Average Corporate Tax Rate					13,9%

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Appendix E: Average Historical Working Capital (WC)

(Million \$)	2018	2019	2020	2021	2022	2023
Revenues	\$36 397	\$39 117	\$37 403	\$44 538	\$46 710	\$51 217
Current Assets:						
Accounts Receivable	\$3 498	\$4 272	\$2 749	\$4 463	\$4 667	\$4 131
Prepaid Expenses and Other Current Assets	\$1 130	\$1 968	\$1 653	\$1 498	\$2 129	\$1 942
Inventories	\$5 261	\$5 622	\$7 367	\$6 854	\$8 420	\$8 454
Total Current Assets	\$9 889	\$11 862	\$11 769	\$12 815	\$15 216	\$14 527
Current Liabilities:						
Notes Payable	\$336	\$9	\$248	\$2	\$10	\$6
Accounts Payable	\$2 279	\$2 612	\$2 248	\$2 836	\$3 358	\$2 862
Income Tax Payable	\$150	\$229	\$156	\$306	\$222	\$240
Accrued Liabilities	\$3 269	\$5 010	\$5 184	\$6 063	\$6 220	\$5 723
Total Current Liabilities	\$6 034	\$7 860	\$7 836	\$9 207	\$9 810	\$8 831
Total Working Capital	\$3 855	\$4 002	\$3 933	\$3 608	\$5 406	\$5 696
ΔWC	\$0	\$147	-\$69	-\$325	\$1 798	\$290
Total WC / Revenues		10,2%	10,5%	8,1%	11,6%	11,1%
Average of Total WC / Revenues					10,3%	

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Appendix F: Average Historical Capital Expenditures (CAPEX)

(Million \$)	2019	2020	2021	2022	2023
Revenues	\$39 117,00	\$37 403,00	\$44 538,00	\$46 710,00	\$51 217,00
CAPEX	\$1 119	\$1 086	\$695	\$758	\$969
CAPEX / Revenues	2,86%	2,90%	1,56%	1,62%	1,9%
Average of CAPEX / Revenues					2,17%

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Appendix G: Average Historical Interest Coverage Ratio

(Million \$)	2019	2020	2021	2022	2023
EBIT	\$4 772	\$3 115	\$6 937	\$6 675	\$5 915
Interest Expense	\$49	\$89	\$262	\$205	\$6
Interest Coverage Ratio	97,39	35	26,48	32,56	> 2022
Average Interest Coverage Ratio					47,86

Source: Nike's Annual Reports from 2019 to 2023. Own Calculations

Appendix H: Credit Risk Rating

If interest coverage ratio is...			
>	≤ to	Rating is ...	Spread is ...
-100000	0,199999	D2/D	20,00%
0,2	0,649999	C2/C	17,50%
0,65	0,799999	Ca2/CC	15,78%
0,8	1,249999	Caa/CCC	11,57%
1,25	1,499999	B3/B-	7,37%
1,5	1,749999	B2/B	5,26%
1,75	1,999999	B1/B+	4,55%
2	2,2499999	Ba2/BB	3,13%
2,25	2,499999	Ba1/BB+	2,42%
2,5	2,999999	Baa2/BBB	2,00%
3	4,249999	A3/A-	1,62%
4,25	5,499999	A2/A	1,42%
5,5	6,499999	A1/A+	1,23%
6,5	8,499999	Aa2/AA	0,85%
8,5	100000	Aaa/AAA	0,69%

Source: Damodaran Blogspot

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