



Equity Valuation: Zalando SE

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Abstract

Title: Equity Valuation – Zalando SE

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This study examines the equity value of Europe's market leader in the fashion e-commerce segment, Zalando SE. The objective of the dissertation is to determine the fair share price as of 31.12.2023 and issue an investment recommendation. Reading the paper should enable the reader to make a profound investment decision. Utilizing both the discounted cash flow and relative valuation method, the target price is calculated. The assumptions for the valuation are derived using a multi-layered approach that considers external factors as well as internal strategy shifts and historical performance. The results are compared with the price target derived in the Credit Suisse report dated 3 August 2023. This reveals considerable similarities in the methodology as well as differences due to the different publication dates. The paper concludes by emphasizing Zalando's significant upside potential of 73%, which is supported by the derived price target of €38,4. Accordingly, a buy recommendation is issued.

Keywords: Zalando, Fashion e-commerce, Online retail, Valuation, Discounted Cash Flow, Relative Valuation

Resumo

Título: Avaliação de Acções - Zalando SE

Autor: Felix Koch

Este estudo analisa o valor do capital próprio do líder de mercado europeu no segmento do comércio eletrônico de moda, a Zalando SE. O objetivo desta dissertação é determinar o preço de uma ação desta empresa a 31.12.2023, assim como contruir uma recomendação de investimento. A leitura da dissertação deverá permitir ao leitor tomar uma decisão de investimento apropriada. Utilizando fluxos de caixa atualizados e o método de avaliação relativa, o preço alvo é calculado. Os pressupostos para a avaliação são obtidos através de uma abordagem transversal que considera fatores externos, bem como mudanças de estratégia interna e desempenho histórico. Os resultados são comparados com o preço alvo calculado no relatório do Credit Suisse de 3 de agosto de 2023. Estes resultados revelam semelhanças consideráveis na metodologia, contando também com diversidades devido às diferentes datas de publicação. O artigo conclui enfatizando o significativo potencial positivo da Zalando de 73%, que é apoiado pelo preço alvo derivado de €38,4. Por conseguinte, é emitida uma recomendação de compra.

Palavras-chave: Zalando, Comércio de moda, Retalho em linha, Avaliação Patrimonial, Fluxo de caixa descontado (DCF), Avaliação relativa

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Abbreviation

AOS – All other segments

bn – Billion

CAGR – Compound Annual Growth Rate

CAPEX – Capital Expenditures

COGS – Costs of Goods Sold

D&A – Depreciation & Amortization

DCF – Discounted Cash Flow

EBIT – Earnings Before Interest and Taxes

EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization

EV – Enterprise Value

FCFE – Free Cash Flow to Equity

FCFF – Free Cash Flow to Firm

GMV – Gross Merchandise Value

HICP – Harmonized Inflation Consumer Price

m – Million

NPV – Net Present Value

PER – Price-Earnings-Ratio

PP – Partner Program

Q – Quarter

TAM – Total Addressable Market

TV – Terminal Value

WACC – Weighted Average Cost of Capital

WC – Working Capital

YoY – Year over Year

ZFS – Zalando Fulfilment Solution

ZMS – Zalando Marketing Services

1 Introduction

The primary focus of this thesis is the derivation of the fair market value of the Zalando SE stock. The result will be a recommendation to buy, hold, or sell the Zalando share. In addition, the approach described is compared with that of other analysts, and deviations are explained. Therefore, the overall aim of the thesis is to enable the reader to make a better investment decision.

Zalando is a German e-commerce retailer focusing on fashion products, headquartered in Berlin. They operate in 25 markets across Europe and are Europe's market leader in online fashion retail. Zalando boosted its revenue by 60% in the first 2 years of the COVID-19 pandemic, therefore being one of the few profitters. Since then, Zalando has struggled with further growth, which is attributable to the persistently poor macroeconomic situation. In 2022, revenue totaled €10,2bn. Zalando targeted a recovery for 2023 but had to adjust its targets downwards with the Q3 figures. The focus in 2023 was then on improving profitability, and initial successes have already been achieved.

Zalando was chosen for the valuation as the company offers an exciting hybrid case of historically strong growth and recent stagnation. In addition, the company was only included in the German share index in 2021, which has increased the visibility of the share enormously. Currently, the share trades near an all-time low while profitability is on the rise again. This raised the question of whether the Zalando share is fairly valued or whether there is upside (downside) potential.

Since the motivation described has positive connotations, particular care was taken to ensure that the evaluation process was neutral to avoid selection bias. This kind of bias as described by Damodaran states that the motivation for choosing a company is often already linked to a certain preconception that can influence the evaluation (Damodaran, 2012a).

This thesis is organized as follows: Chapter 2 discusses the most relevant literature regarding Equity Valuation, focusing on the methods used in the latter valuation of Zalando. In chapter three the industry as well as the company itself are described and relevant industry trends and strategic management decisions that influence the value of Zalando are outlined. The following chapter four will build upon the foundation laid in the previous chapter and will be about the valuation itself. This chapter will include all the assumptions, the detailed DCF approach, the relative valuation, and the target price of Zalando. The fifth chapter will compare the results with the equity report published by Credit Suisse on the 3rd of August 2023. This is followed by a conclusion.

2 Literature Review

Value, whether in financial or tangible assets, has a central role in successful investment and asset management (Damodaran, 2012a). This chapter delves into the fundamentals and complexities of asset valuation, recognizing that while every asset possesses value, the methodology and intricacies of the valuation vary from case to case.

The basic concept of a valuation is to determine the value of the standalone company or business unit both in the present and in the future. However, the specific task of a valuation differs depending on the area of application. In portfolio management, valuation plays an important role in fundamental analysis, where the true value of a company is sought based on its financial characteristics. If the true value differs from the market value, this is a sign that a company is over- or undervalued, and assuming that the market price approaches the true value over time, an investment decision can be made. In an acquisition process, for example, both the seller and the buyer will carry out an evaluation to be able to agree on a price if possible. In this paper, a valuation is made for Zalando, and a buy, hold, or sell recommendation is issued.

2.1 Pre consideration

When conducting a valuation, two fundamental components that can lead to inaccurate results must be considered: Bias and uncertainty.

Biases can emerge right from the start, even in the selection of the company for analysis, as analysts don't typically choose the company at random. Personal feelings and preconceptions about the company can taint the interpretation of information. Furthermore, the data itself may be influenced by the organization providing it, often the company itself. To mitigate these biases, it's essential to acknowledge their existence and refrain from making hasty judgments (Damodaran, 2012a).

Two types of uncertainty can arise estimation uncertainty and real uncertainty. Estimation uncertainty pertains to any potential errors made by the analyst during model calculations. This can stem from issues like a poor database, inaccurate conversion of raw data into model inputs, or incorrect utilization of inputs within the model. An ideal valuation model aims to minimize both biases and estimation uncertainty, striving for a near-zero impact. On the contrary, real uncertainty remains an inherent component of any model. Analysts' assumptions regarding a company's future

are susceptible to inaccuracy, and macroeconomic conditions can swiftly evolve. This became evident on a large scale during the COVID-19 pandemic.

Nonetheless, a good valuation is not synonymous with pinpoint accuracy, as precision in valuations is practically unattainable. According to Damodaran (2012a), a solid valuation model incorporates all available information at the time of the valuation, providing a comprehensive and informed assessment.

Valuation Methodologies can be clustered into three groups: intrinsic valuation, relative valuation, and contingent claim valuation. Intrinsic valuation relates the ability to generate cash flows to the risks associated with the cash flows (Damodaran, 2018). The most common method of calculating intrinsic value is the discounted cash flow calculation. Relative valuation compares the value of an asset with prices of similar assets in relation to a common variable such as earnings, cash flow, book value, or revenue. In contingent claim valuation, option pricing models are used to determine the value of assets that have similar option attributes (e.g. Black and Scholes). The different methods described can lead to different results, therefore it is important to know the advantages and disadvantages of each method and to choose the best method for the asset to be valued (Damodaran, 2012a).

Zalando is valued using the DCF method with FCFF on the one hand and a relative valuation on the other. The synergistic use of these methods is seen as highly beneficial as it considers both intrinsic value and current market sentiment.

The DCF method facilitates the formulation of specific assumptions, offering flexibility in predicting operating performance. Given Zalando's ongoing transformations and varied margin developments across segments, the ability to tailor assumptions individually holds significant importance.

In parallel, the relative valuation captures current market expectations and provides a benchmark against relevant peers. This combined methodology ensures a comprehensive assessment, leveraging the strengths of each approach. In the next paragraphs further decisions on specific choices within these chosen methods are explained, providing clarity on the rationale behind each decision.

2.2 Discounted Cash Flow Valuation

The discounting cash flow method is described as the only method that is conceptually correct (Fernández, 2001). The basic idea of a DCF is that the company or asset to be valued is worth as much as the future cash flows it generates, discounted by the risk of the cash flow. Therefore the process of the calculation can be divided into two parts: forecasting expected future cash flows and determining the opportunity cost of funds to discount the cash flows to present value (Luehrman, 1997). The underlying formula of the approach can be expressed as the net present value (NPV) formula (Damodaran, 2012b):

Formula 1: NPV

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

where,

n = Life of the asset

CF_t = Cash flow in period t

r = Discount rate reflecting the riskiness of the estimated cash flows

When valuing an entire company using a DCF, a significant challenge arises from the fact that companies usually do not have a finite life. Therefore, we must either assume that the company will be sold after the forecasting period or formulate additional assumptions about the development of the company over an infinite period. In the thesis, the latter is done and therefore the following formula is applied (Fernández, 2001):

Formula 2: Discounted Cash Flow

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

Formula 3: Terminal Value

$$VR_n = \frac{CF_n * (1+g)}{r-g}$$

where,

VR_n = Residual value of the company in year n

g = Expected constant growth rate after year n

The next paragraph will delve deeper into the single parts of the equation, which differ across the different DCF methods. The methods discussed in this dissertation are free cash flow to the firm (FCFF) and free cash flow to equity (FCFE).

2.2.1 Free Cash Flow to the Firm (FCFF)

The FCFF method calculates the whole firm value, meaning the value of equity plus the value of debt (Fernández, 2001). To compute the firm value, we consider the cashflows that are available before debt payments, but after reinvestments in growth assets. The discount rate used for the FCFF is the weighted average cost of capital (WACC) because the considered cash flows are the cash flows from both equity and debt holders (Damodaran, 2012b).

Pinto et al. (2019) offer a more comprehensive definition of FCFF: “FCFF is the cash flow available to the company’s suppliers of capital after all operating expenses (including taxes) have been paid and necessary investments in working capital and fixed capital have been made.” In essence, it reflects the cash generated from operational activities minus capital expenditures. These capital suppliers typically encompass ordinary shareholders, bondholders, and, in certain instances, preference shareholders (Pinto et al., 2019). The calculation of FCFF can be visualized (Fernández, 2001):

Formula 4: Free Cash Flow to the firm

Earnings before interest and taxes (EBIT)
- Tax
= Net income without debt
+ Depreciation
- Increase in fixed assets (CAPEX)
- Increase in Net working capital (NWC)
= Free Cash Flow to the firm

The firm's value is subsequently determined by incorporating the FCFF and the discount rate, represented by the WACC, into the DCF formula (*Formula 2*).

2.2.2 Free Cash Flow to Equity (FCFE)

This methodology exclusively focuses on determining the present value of the company's equity claims. Consequently, the cash flows incorporated in this computation are those remaining after

fulfilling debt obligations and reinvestments in assets to facilitate growth. Given the consideration of equity holder cash flows, the appropriate discount rate for this purpose is exclusively associated with the expenses related to raising equity, known as the cost of equity (Damodaran, 2012a). The cash flows to equity can be calculated as follows (Damodaran, 2012b):

Formula 5: Free Cash Flow to equity

Earnings before interest and taxes (EBIT)	
- Interest	
- Tax	
= Net Operating Profits Less Adjusted Taxes (NOPLAT)	
+ Depreciation	
- Increase in Fixed Assets (CAPEX)	
- Increase in Net Working Capital (NWC)	
+ Net Borrowings	
= Free Cash Flow to equity	

The FCFE method can be difficult to implement correctly, as the capital structure influences the cash flows and therefore a separate consideration can lead to errors (Koller et al., 2005). This is why in this paper the FCFF method is used to value Zalando.

2.2.3 Terminal Value (TV)

The concept of TV was briefly introduced in Chapter 2.2. In classic DCF analysis, it wields significant influence, typically accounting for approximately 56-125% of the total valuation (Koller et al., 2005). Given its importance, the following section will delve deeper into understanding TV, especially within the context of the going concern approach chosen for Zalando's valuation.

Alternative methods for calculating TV exist, including the assumption of liquidation of the company in the terminal year, or multiple calculations, using metrics such as sales, earnings, or book values. However, in the methodology adopted here, the going concern approach, it is assumed that the company's cash flows will perpetually grow at a consistent rate. This stable growth rate facilitates the application of a perpetual growth model (Damodaran, 2012b). Due to the infinity characteristics, the growth rate has some limitations. Conceptually, the firm can't grow more than the economy in which it firm operates in perpetuity. Therefore, it must be understood whether the company will operate forever in one country, one area (e.g. Europe), or will expand to new markets.

When valuing in nominal terms, the growth rate must integrate estimated inflation. Valuations based on currencies that are prone to strong inflation should be adjusted for higher growth rates (Damodaran, 2012b).

2.2.4 Weighted average cost of capital (WACC)

When the future cash flows, and the terminal value, have been estimated, the next step is to compute the right discount rate. Since the entire company's value is calculated (FCFF), the required return on debt and the required return on equity must be included in the discount rate in proportion to the respective share of the entire financing structure. The resulting discount rate is called WACC (Fernández, 2001). The formula of the WACC is generally given by (Modigliani & Miller, 1958):

Formula 6: Weighted Average cost of capital

$$WACC = k_e * \frac{E}{D + E} + k_d * \frac{D}{D + E} * (1 - T)$$

where,

k_e = Cost of equity

k_d = Cost of debt

E = Market value of equity

D = Market value of debt

T = Marginal tax rate

The formula indirectly includes the bankruptcy cost of a firm via the cost of debt, as well as the tax benefits from interest payments. If the current financial structure is not assumed to be constant in the future, the analyst has two options. Either the analyst calculates the WACC for each forecasting period individually, which involves considerable effort, or he/she assumes a target financial structure, which is then held constant (Pinto et al., 2019). The latter option was chosen for Zalando, as the capital structure has been kept constant in recent years.

2.2.4.1 Cost of equity

The cost of equity represents the return that investors demand when investing in an equity stake in a company, compensating for the associated risks (Ross et al., 2022). Traditionally, two common methods are employed to calculate the required equity return: Gordon and Shapiro's constant growth valuation model and the capital asset pricing model (CAPM) (Fernández, 2001). The dissertation will focus on the latter. The CAPM defines the required return as:

Formula 7: The CAPM

$$E(R_i) = R_f + \beta_i * (R_M - R_f)$$

where,

$E(R_i)$ = expected return of the stock i

R_f = risk-free rate

β_i = beta of stock i , sensitivity to the market

$(R_M - R_f)$ = Market risk premium

This results in three parts that must be estimated to compute the required return for equity: risk-free rate, beta, and market risk premium.

A default-free government bond is usually used for the **risk-free rate**. In practice, we then have to decide on the right maturity as government bonds come in many different maturities. Koller et al. (2005) advise using a maturity that is similar to the corresponding cash flow, meaning the risk-free rate changes for every year. For European companies like Zalando, the 10-year German Eurobond is the preferred instrument because it has higher liquidity and lower credit risk than bonds from other European countries (Koller et al., 2005). This instrument also corresponds to the forecast horizon of the valuation, which is why it is used as a risk-free interest rate.

The **market risk premium**, also known as the **equity risk premium**, is the next component of the CAPM formula. It represents the difference between the expected return of the market and the risk-free rate and reflects the additional return that investors demand for holding risky equities instead of risk-free investments. Various methods exist for calculating the market risk premium (Fernández, 2001; Koller et al., 2005) but the most widely used approach involves examining historical risk premiums. The calculation involves estimating the actual returns earned on stocks over a significant period and comparing them to the returns earned on risk-free investments. The resulting difference is termed the equity risk premium (Damodaran, 2012b).

Beta is the last crucial parameter that encapsulates the risk a stock introduces to the market portfolio, representing its systematic risk. However, beta cannot be directly observed or computed and thus must be estimated. One common method for estimating beta involves using historical market price data for a particular investment. In this process, an initial beta value is estimated through regression analysis, where the stock's returns are regressed against the market's returns. The resulting estimate

is then refined through sector comparisons and smoothing techniques such as simple moving averages or the Vasicek adjustment. The beta is essentially determined by the slope of the regression line. In simple terms, if a stock has a beta of 1, its volatility is in line with that of the market. A beta below 1 suggests lower volatility compared to the market, while a beta above 1 indicates higher volatility relative to the market. The conventional beta, which relies on historical data, is inherently backward-looking and may not be an ideal metric for valuing a company based solely on future cash flows. Blume (1975) proposed an adjustment that considers the time instability and the tendency of beta to regress towards one. The following formula characterizes the adjusted beta (Blume, 1975):

Formula 8: Adjusted Beta

$$\text{Adjusted Beta} = \frac{1}{3} + \frac{2}{3} * \text{raw Beta}$$

2.2.4.2 Cost of debt

The cost of debt describes the expenses incurred by a firm in connection with borrowing funds (Damodaran, 2012b). This cost is intricately tied to the company's creditworthiness. When a company holds a credit rating of BBB or higher, the cost of debt can be determined using the yield to maturity (YTM) on the company's long-term debt. It's worth noting that, for calculating the cost of debt and YTM, market values of debt are used rather than book values (Rosenbaum & Pearl, 2013). However, in cases where a company lacks publicly traded debt or possesses a low credit rating, the implied yield to maturity can be calculated based on the company's credit rating (Koller et al., 2005). Zalando falls into the latter category.

2.3 Relative Valuation

Relative valuation is a financial analysis approach employed to assess the value of an asset by comparing it to its market or industry peers. A comprehensive relative valuation hinges on two crucial steps: the selection of similar assets (peers) and the precise definition of appropriate multiples. To ensure that a company is a suitable member of the peer group, certain criteria must align. These include operating in the same industry, possessing a similar size, anticipating comparable growth rates, exhibiting analogous ROIC, and maintaining a comparable capital structure. In the process of selecting the most fitting valuation metric, categorization into Enterprise Value, growth-related, and equity-based multiples is beneficial. The utilization of forward-looking multiples is advantageous since they exclude one-time effects (Koller et al., 2005). It is of utmost

importance to standardize the chosen valuation metric consistently across the peer group and to accurately identify the variables required for precise multiple computations (Damodaran, 2012b).

In the following, we will deep dive into the most used multiples for equity valuation which are the price-to-earnings ratio (PER) and the Enterprise value to EBITDA (Koller et al., 2005). The PER is the comparison of the market price per share with the earnings per share (EPS) and can thus be shown as:

Formula 9: Price-to-earnings ratio

$$PER = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

The ratio has certain limitations, especially concerning the calculation of EPS. It is notably sensitive to the capital structure, thus restricting valid comparisons to firms with comparable capital structures. Furthermore, the ratio offers limited insights when a company reports negative earnings, and it can be swayed by the accounting choices made by the firm, particularly the reinvestment rate. In cases where firms reinvest more, all other factors held constant, their PER tends to be smaller (Damodaran, 2012b).

Another ratio that is less affected by choices of the capital structure and the reinvestment rate is the EV/EBITDA. Additionally, EBITDA may be positive while net income is negative (Pinto et al., 2019). The EV is also used in other multiples such as EV/Sales or EV/EBIT. To derive the equity value from the EV, net debt, preference shares, and minority interests must be deducted. The formula is given by:

Formula 10: EV/EBITDA

$$\text{Enterprise value to EBITDA} = \frac{\text{Enterprise Value}}{\text{EBITDA}}$$

3 Zalando SE

Zalando was founded in 2008 in Berlin as an online shoe retailer. Today, Zalando employs 16.516 people and is the leading e-commerce platform for fashion in Europe. Since its beginnings the company has expanded to 25 European countries, serving a total number of 50,1 m customers. Founded by Robert Gentz and David Schneider, who are still at the top of the company, Zalando has evolved into a pioneer with a vision to become the "starting point of fashion" in the industry. The company's initial public offering (IPO) took place in 2014 when it was listed on the Frankfurt Stock Exchange. In 2021 Zalando became part of the DAX (Deutsche Aktienindex), the stock market index that represents the 40 largest and most liquid German companies (Chen, 2022). Out of the total of 259,2 m outstanding shares, 88,6% are in free float. The largest shareholders are Baillie Gifford & Co and Anders Holch Povlsen with 11,2% and 10,1% respectively.

In 2022, Zalando generated revenue of €10,3 bn. Of this, 81,8% was attributable to the Fashion Store, i.e. the sale of fashion and lifestyle products via the website and app, 15,4% to the off-price segment, a specially developed online shop for discounted products, and 2,8% to marketing services and other.

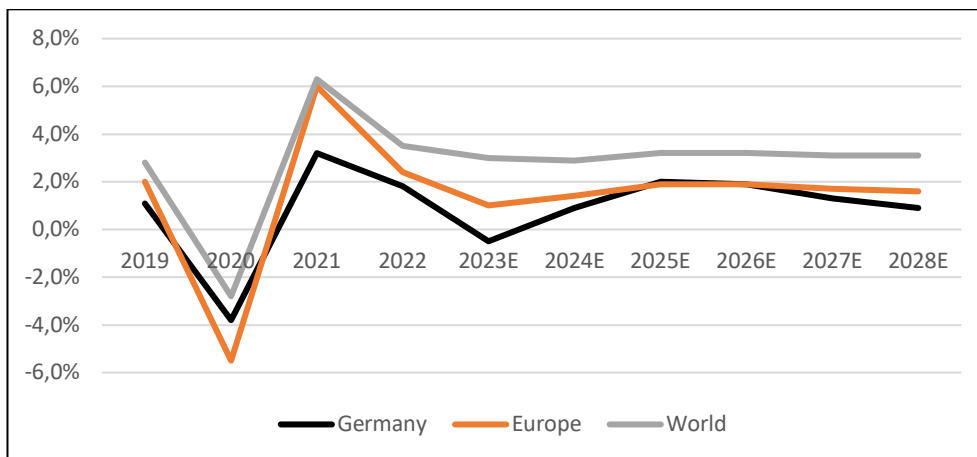
The following chapters provide an in-depth analysis of the macroeconomic conditions of Zalando's operating markets, industry dynamics, and a further analysis of Zalando's operations, including its strategic direction. This fundamental understanding is critical to the assumptions underlying the valuation discussed in Chapter 4 ("Valuation").

3.1 Macroeconomic Outlook

The recent years of uncertainty and economic volatility in Europe have had a tangible impact on consumer spending patterns, directly influencing the fashion sector and, by extension, Zalando's operational landscape. Three years of the pandemic have not only left an impact on people's psyche but also on the economy. Consumer behavior has shifted towards more online shopping and greater health awareness, supply chain issues have arisen from factories shutting down, and remote working has become the norm. Additionally, the ongoing geopolitical tensions, which initially manifested in the Ukraine conflict and more recently in the disputes over the Gaza Strip, have led to supply shocks in the European Union. Particularly the energy sector was affected and rising prices contributed to a spike in inflation. Nevertheless, global trade continues to support the global economy (Wohlgemuth et al., 2023). A closer look at the development of real GDP growth rates shows a rapid

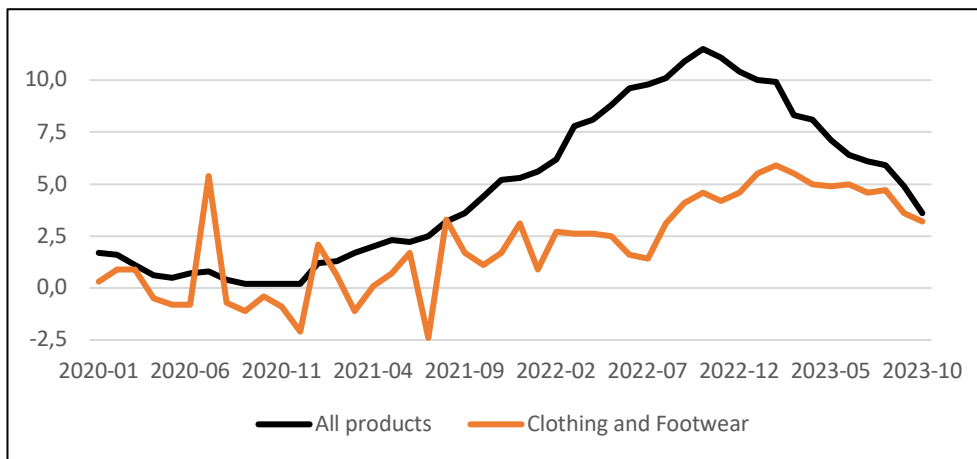
recovery after the shock of the coronavirus pandemic in 2020. The strong growth rate in 2021 can be seen as a catch-up effect as growth slowed again in the following two years. However, the International Monetary Fund (IMF) assumes that the growth rate in the eurozone will stabilize at around 1,9%, as can be seen in Figure 1 (IMF, 2023):

Figure 1: Real GDP growth in selected regions; Source: (IMF, 2023)



Due to the high levels of inflation in the past two years, a closer assessment of the development of inflation is made. According to the Eurostat, inflation as measured by the Harmonized Inflation Consumer Price (HICP) peaked in Europe in October 2022. For Clothing and Fashion products the biggest growth rate was observed in February 2023 with 5,9%. Since then, an almost linear decline in the inflation rate has been observed (Eurostat, 2023). Based on IMF projections, the inflation rate will continue to fall in 2024 and return to the target range of 2% in most countries by 2025 (OECD, 2023). The inflation for clothing and fashion products in Europe was on average around 0,5% in the years 2020 and 2021.

Figure 2: HICP in the Euro area – monthly data (in YoY %- change); Source: (OECD, 2023)



As a result of the deterioration in economic growth rates and higher inflation, consumer confidence has also deteriorated. As this effect has a major impact on the fashion industry, it is explained in more detail in section 3.2.2 ("Industry drivers").

3.2 Online Fashion Retail & Platform Industry

The next step will be to pinpoint the industry in which Zalando operates. Zalando primarily conducts the sale of its products through online channels, with a predominant focus on offerings within the fashion category. Driven by technological advances and changing consumer behavior, the share of online retail continues to increase year by year.

3.2.1 Market size

To outline the size of Zalando's total addressable market (TAM), the total European fashion market size which is estimated at € 486 bn in 2022 was the starting point. Zalando's business activities are currently limited to Europe and international expansion beyond Europe is not expected given the current strategic goals. Exclusively in Germany, Zalando operates 15 physical stores in the form of Zalando outlets, which only account for a fraction of sales. Zalando's core market is therefore the European online fashion trade, which corresponds to 25% of the European fashion market and has a volume of € 122 bn. The industry is expected to grow up to € 175 bn by 2025, thus growing by a CAGR of 12,8%. The growth is driven on the one hand by general growth in the fashion market, and on the other hand by the increase of online share of the fashion market to 33% (CBCommerce Europe, 2022).

3.2.2 Industry Players

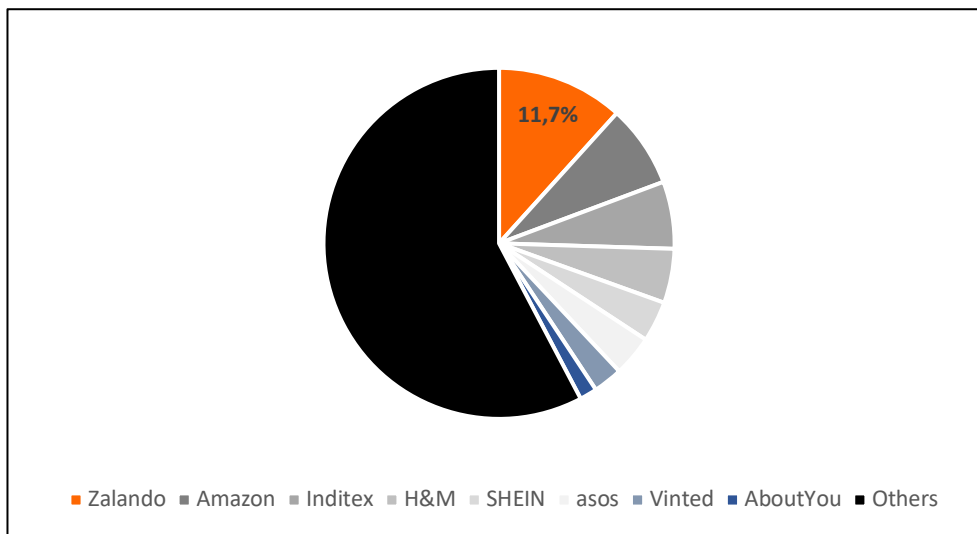
A distinction can be made between different business models within e-commerce operations. They can be categorized into first-party (1P) and third-party (3P) operations. In the 1P model, companies sell goods from their own inventory, following a traditional retail approach with recognized inventory, set prices, and full responsibility for fulfilment. On the other hand, 3P models, acting as aggregators, connect consumers and merchants in a marketplace format, aggregating goods from third-party suppliers. Zalando can be seen as a mix of both models, just like many other e-commerce companies (e.g. Amazon, About You, Asos) (Sheridan et al., 2023).

Zalando not only competes with other online marketplaces but also with brick-and-mortar retailers, such as H&M, Inditex, Adidas, etc. who operate as an omnichannel retailer. CBCommerce has published a report on the 20 largest key retailers and marketplaces in the fashion industry for Europe. As can be seen in Figure 3, Zalando is the market leader in the online-only segment with a market share of 11.7%¹ (CBCommerce Europe, 2022).

Notable competitors are Amazon, Asos, and Aboutyou, with the former increasingly emphasizing its presence in the fashion sector as the world's largest online marketplace. Shein, a Chinese fast fashion retailer, has gained significant traction and overtook Zalando this year in terms of the number of active customers (Müller & Schimroszik, 2023). European fast fashion giants H&M Group and Inditex are also asserting their influence on the European online fashion market through their online shops. Vinted is a second-hand market where users buy (sell) directly from (to) other users. This business model has become increasingly important due to the demand for more sustainable and high-quality fashion. Zalando fulfills this demand with its pre-owned business. The difference to Vinted is that users do not sell directly to other users, instead, Zalando acts as a middleman.

¹ Based on Gross Merchandise Value, which in the case of Zalando differs from revenue; Detailed explanation in Chapter 3.2.2

Figure 3: Online Market Share Europe; Source: (CBCommerce Europe, 2022)

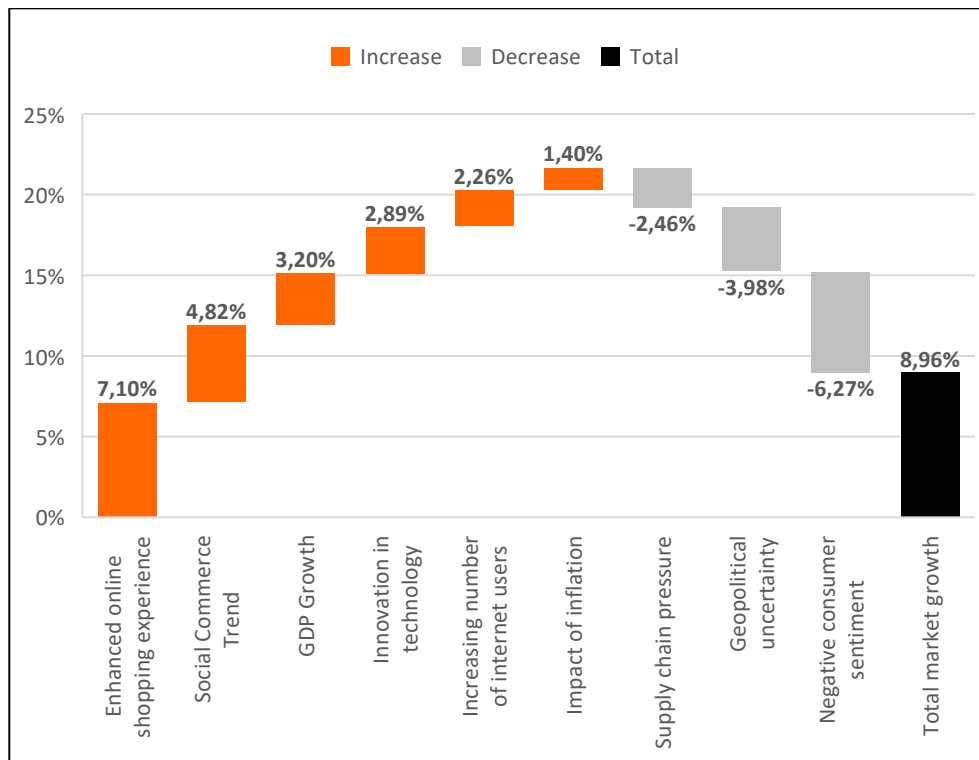


3.2.3 Industry Drivers

The market drivers of the industry are diverse. The fashion industry is primarily dependent on consumer confidence. When consumer confidence is low, the fashion sector encounters substantial challenges and vice versa (Allenby et al., 1996). Depressed consumer sentiment in 2023 puts pressure on the fashion market.

Figure 4 shows the market drivers for revenue in the global fashion industry for 2023 (Statista, 2023). In Europe, consumer sentiment lags the global average, indicating that the fashion market in Europe is likely to face a more distinct negative impact. Supply chain issues and geopolitical uncertainty are present in Europe as well as everywhere else. The growth drivers for 2023 will primarily be fueled by an improved online shopping experience and the trend to social commerce, which refers to direct shopping via social media platforms. Due to lower GDP growth in Europe, this factor will be less favorable to growth (Figure 1). Innovation in technology as well as an increasing number of internet users will also positively affect the European fashion industry. The impact of inflation on the European fashion market was higher in 2023 leading to higher prices for consumers and higher revenue for retailers (Figure 2).

Figure 4: Market drivers for revenue change in the global fashion industry 2023; Source: (Statista, 2023)



The drivers are largely driven by the growth of e-commerce. This goes hand in hand with the assumption that the share of online business in the global fashion market will increase. The “Global eCommerce handbook” from Goldman Sachs predicts that the share of online business in Europe will be 27% in 2025 compared to 24% in 2022 (Sheridan et al., 2023).

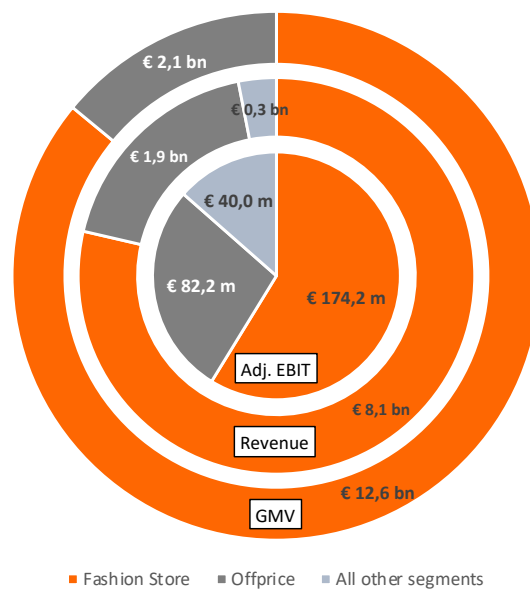
Gross merchandise value (GMV) is a specific key performance indicator of the e-commerce sector. It includes the total economic value of the products sold via a platform in a specific period. GMV is a key indicator for scaling eCommerce businesses and is usually the most important driver of sales growth, as most sales models depend either on GMV itself or on charging a commission ("take rate") as a percentage of GMV. The GMV in the case of Zalando is reported after returns and cancellations and before VAT.

3.3 Zalando’s Business Model

Zalando currently operates a hybrid business model consisting of a wholesale retailer (1P) and a B2B marketplace (3P). Zalando calls the 1P business “Wholesale” and the 3P business “Partner Program” (PP). The differences between these business models are not immediately apparent to the

customer, but the value chain for Zalando differs considerably. As Zalando's internal management is organized by sales channel and not by value chain, the Wholesale and Partner Program sales are not published separately. The explanation of the sales channels therefore also describes the extent to which the two different business models are relevant to the company. The GMV, revenue, and adj. EBIT split between the following segments is illustrated in Figure 5.

Figure 5: GMV/ revenue/ adj. EBIT segment split for FY/2023E; Source: (Zalando, 2023a) & own analysis



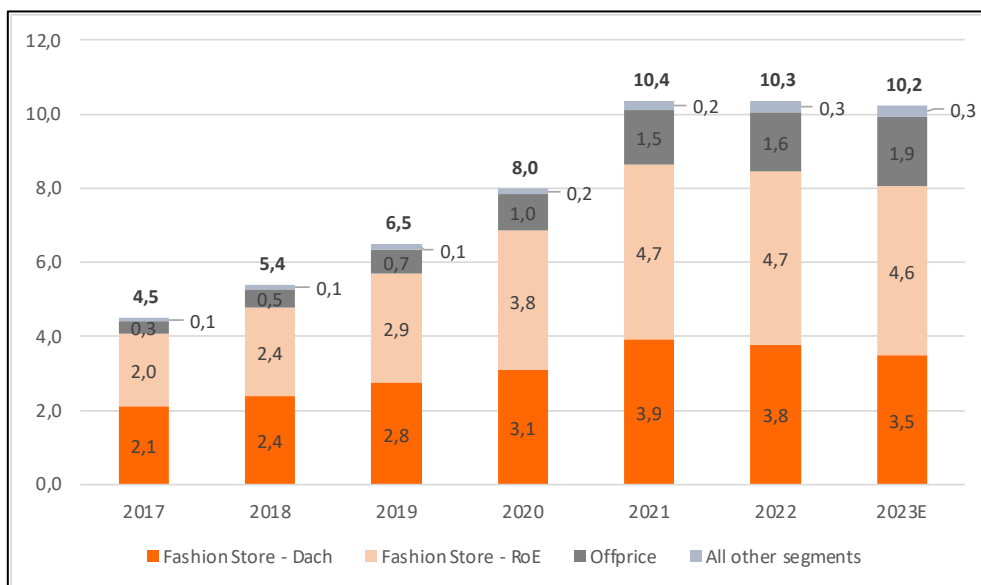
The principal channel is the **Fashion Store**, accessible via the Zalando app and website, which serves as the mainstay of the company's retail operations. In the wholesale segment, sales are generated from a variety of product categories. This includes not only the sale of traditional fashion, but also pre-owned fashion, beauty, and designer products. For products sold via the partner program (PP), only the commission rate plus fees from additional services are included in the sales calculation. The additional services allocated to the Fashion Store segment are primarily the Zalando Fulfilment Solution (ZFS). ZFS offers Zalando partners the opportunity to utilize the international logistics network. In addition to easy expansion into new markets, ZFS enables the delivery of products from several brands in one package. This reduces logistics costs and improves customer convenience. Since 2022, partners have also been able to use Zalando's logistics network for their own distribution channels. Shipping, dunning, and subscription fees are also part of the Fashion Store. Subscription fees refer to Zalando Plus, which costs €15 per year and gives customers access to faster delivery and earlier availability of new products (Zalando, 2023d, 2023a).

The **Offprice** segment targets cost-aware consumers through “Lounge by Zalando” and Brick-and-mortar outlet stores. The segment also serves as a B2B overstock channel and can be almost entirely allocated to the wholesale segment. 'Zalando Lounge' distinguishes itself by offering discounts of up to 75%, with products available for a limited duration of 72 hours and new deals introduced daily. Additionally, Zalando's physical presence is marked by outlet stores, strategically located in 15 locations across Germany (Zalando, 2023d, 2023a).

Additionally, Zalando consolidates ventures like “Zalando Marketing Services” (ZMS), the “Tradebyte” integrator, and niche offerings such as Highsnobiety's curated online shop under **all other segments** (AOS). ZMS encompasses a range of marketing solutions, offering Zalando's partners customer insights and content ideas. Additionally, partners can enhance the visibility of their products and brands within the Zalando shop (Zalando, 2023d, 2023a).

Figure 5 shows, that the EBIT margin of the Offprice segment and AOS is larger than for the Fashion Store. Offprice and AOS are also growing faster than the Fashion Store as visualized in Figure 6. In contrast to the Fashion Store, Offprice and AOS continue to grow. However, the Fashion Store will remain the most important segment in the future, as the other two are dependent on it. The growth of additional services such as ZMS is limited to the growth in the Fashion Store. The recent decline in Fashion Store revenue is due to the deteriorating macroeconomic situation in recent years.

Figure 6: Revenue development in (€ bn) by segment; Source: (Zalando, 2023a) & own analysis



* In 2023 only Q4 was forecasted

3.4 Strategy

Zalando's vision is to become the starting point of fashion in Europe. To achieve this, Zalando is focusing on three strategic dimensions:

The first dimension is the **expansion of the customer base**. Zalando wants to be relevant for different target groups, which is emphasized by the high product diversity of over 2 m SKUs. The company is diversifying its business model, encompassing everything from traditional fashion retail to the Offprice segment. In terms of product categories, Zalando is expanding its portfolio to include pre-owned items, designer collections, and beauty products. In addition, the inclusion of popular brands such as Lululemon and Hoka makes Zalando attractive to both existing and new customers (Zalando, 2023a).

The second dimension addresses the **development of a platform model**. Zalando is expanding the traditional wholesale model by giving brands and retailers the opportunity to operate via a direct-to-consumer (D2C) sales channel. Thereby Zalando generates revenue not only through commissions on products sold via the online shop but also through complementary logistics and marketing services. As mentioned previously, Zalando labels this as Partner Program (PP) internally. The aim is to generate 50% of the Fashion Stores' GMV via the PP by 2025 to capitalize on higher margins in the PP. In the third quarter of 2023, this figure was already 38,8%. This strategic realignment will have a significant impact on Zalando's future development. As the PP expands, the disparity between GMV and revenue increases. The growth in the PP is fully captured in GMV, while in revenue, it is only reflected through the commission rate and service fees. This shift has a variety of effects on the gross margin. On the one hand, the gross margin increases due to the commission-only business, as Zalando has hardly any cost of goods sold (COGS). Revenue from the Zalando Marketing Services (ZMS) business will also contribute to an increase in the gross margin. On the other hand, it is reduced by the growing Zalando Fulfilment Solutions (ZFS) business, which is based on a cost-plus revenue model. In the long term, Zalando's gross margin should nevertheless improve as the magnitude of the first effects is stronger (Zalando, 2023a).

The third dimension includes Zalando's **impact on people and the world**. The company has set itself the goal of having a net-positive impact, i.e. reducing its emissions and encouraging partners to do the same (Zalando, 2023a).

4 Valuation

In the next chapter, the value of Zalando as of 31 December 2023 is determined. Both the DCF method and the Relative Valuation, which have been described in detail in Chapter 2, are applied. In the final step, the two valuation methods are combined to arrive at the final target price.

4.1 DCF Valuation

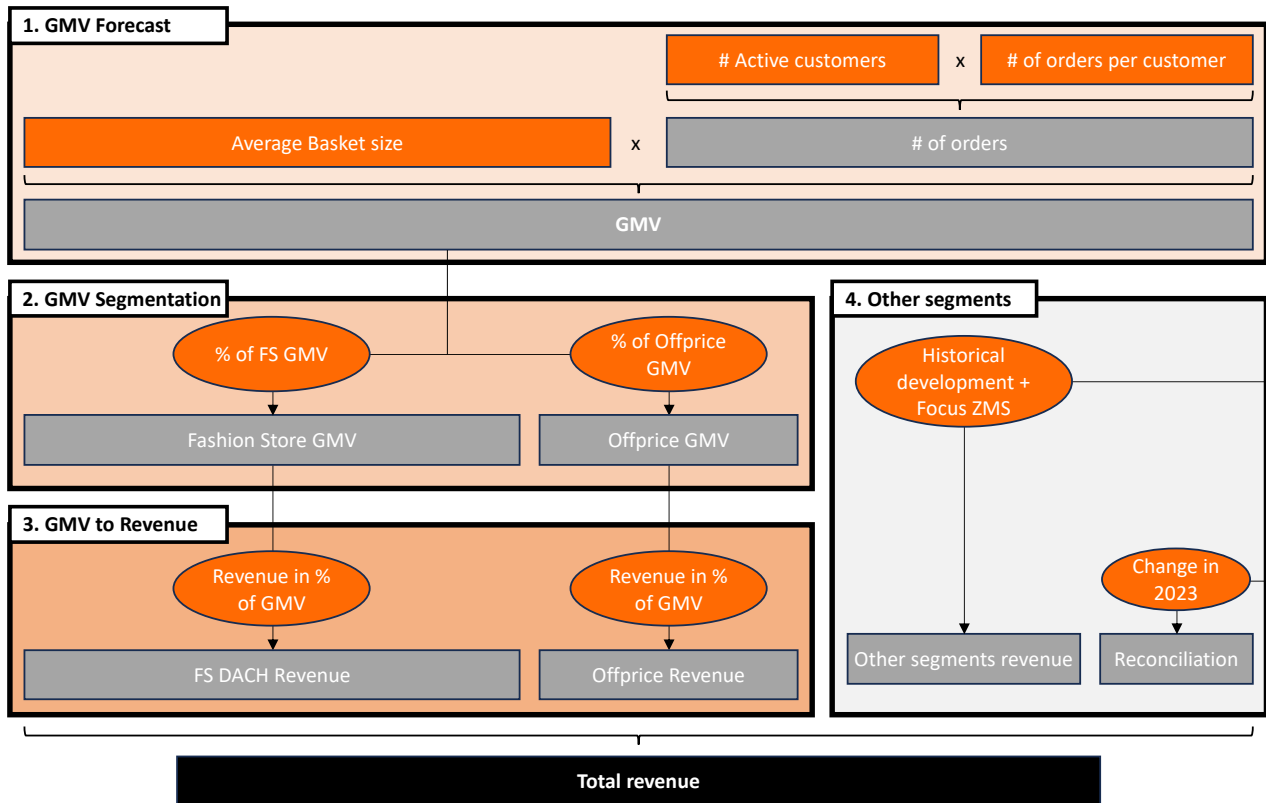
Firstly, the FCFF is forecasted based on assumptions derived from the information presented in the previous chapter. The forecast period is 7 years, at which point it is assumed that e-commerce growth will level off and Zalando's market penetration will reach its final level. Without further expansion into new markets, the organic growth rate will stabilize. The WACC is determined to discount the cash flows appropriately. The equity value is calculated from the resulting enterprise value by subtracting the net debt.

Zalando's main currency is the Euro and most of their operations happen in countries where the Euro is the dominant currency. However, some markets use other currencies and therefore expenses and income from currency exchanges can occur. As the financial figures do not show a trend whether this has a positive or negative effect on the revenues, they are expected to cancel each other out.

4.1.1 Revenue Forecast

The revenue forecast is derived from the GMV, as this is the most appropriate indicator of the scale of an e-commerce business. Assumptions have been defined for the development of GMV and its conversion into actual revenue. In addition, revenues from AOS are projected independently as they are not linked to GMV. The assumptions are underpinned by various factors, ranging from macroeconomic indicators to industry trends, and strategic management guidelines. The goal of the multi-layered approach is to capture all relevant information and minimize estimation uncertainty, as explained in Chapter 2.1. Figure 7 provides a visual overview of the methodology, which is carried out step by step in the following paragraphs. This methodological framework is divided into four different components: GMV forecast, GMV segmentation, conversion of GMV to revenue, and revenue forecasting for other segments.

Figure 7: Revenue forecast methodology; own illustration

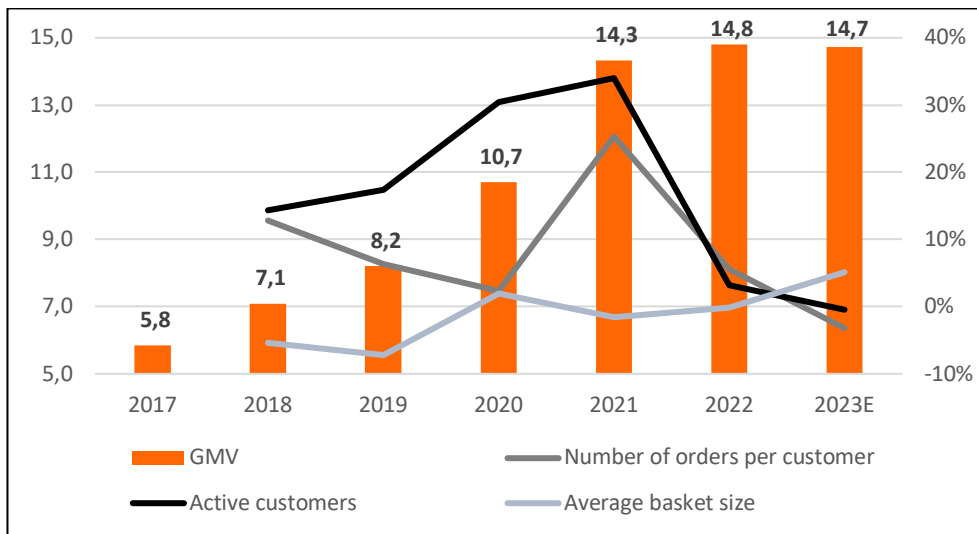


4.1.1.1 GMV Forecast

Zalando's GMV growth projections for 2023 initially ranged between 1% and 7%, this forecast was adjusted to a range between -2% and 1% in Q3 2023. The company's long-term goal is to achieve a GMV of €30 bn (Zalando, 2023b).

As pictured in Figure 7, GMV is derived by multiplying the average basket size per order with the number of active customers, and the frequency of orders per customer. The historical development of those drivers as well as the GMV can be seen in Figure 8. The presentation already includes assumptions for the fourth quarter of 2023. As consumer confidence was already particularly poor in Q4 2022, it is expected that, in contrast to the other quarters, the change in Q4 2023 compared to Q4 2022 will be 0%. The projected change in the GMV for 2023 is therefore -0.5% and thus in the lower half of Zalando's projections.

Figure 8: GMV development (in € bn) and GMV growth drivers in (YoY %); Source: (Zalando, 2023a) & own analysis



Before the forecasted growth rates of the GMV drivers are presented, the most important underlying factors influencing their historical and future development are outlined.

As discussed in Chapter 3.2.3, **consumer sentiment** significantly impacts the fashion industry and has plummeted in 2022. The recent uptick offers optimism for 2024, though discretionary consumer spending may not return to pre-downturn levels until 2025. This trend is affecting all GMV drivers, contributing to recent stagnation.

The **increasing online penetration** of the fashion industry is another factor influencing Zalando's GMV. The pandemic led to a surge in online shopping, but this growth stagnated in 2022. It seems that the pandemic only anticipated growth, not accelerated it. The growth anticipated by the pandemic now appears to have been made up for, and growth rates are expected to pick up again from mid-2024 (McKinsey, 2022). The number of active online shoppers is expected to increase again, which should also have a positive impact on Zalando's customer base.

As highlighted in Chapter 3.4, Zalando has progressively broadened its **market reach** and operates across 25 distinct European markets today. Zalando's market penetration varies, with 23% in the top 5 markets, 10% in markets launched by 2020, and 3% in newer markets. Significant growth opportunities exist outside the top 5 markets, as evidenced by the 7-fold increase in the number of new customers since 2020 (Zalando, 2023c).

Zalando's original strategy to enter the US market was postponed indefinitely in 2022 due to the deteriorating financial climate. Given the uncertainty surrounding this expansion, it is reasonable to assume that Zalando will not expand its operations to the US in the next years. Nevertheless, it is important to recognize that this expansion, should it materialize, would present significant opportunities and risks that would have a fundamental impact on Zalando's valuation.

Another critical factor influencing GMV growth is Zalando's strategic alignment with evolving short and mid-term **consumer behavior trends**. Particularly during economic downturns, the Offprice segment becomes increasingly appealing to consumers. This is expected to be reflected in an increased order frequency in 2024 and partly mitigate the effects of subdued consumer confidence. With its pre-owned fashion segment, Zalando is well equipped to capitalize on the growing interest in circular fashion that enables a more sustainable lifestyle. While this segment is still under development, it has the potential to stimulate customer growth in all of Zalando's operating markets. In 2023, Zalando dedicated a separate app to the pre-owned segment, which underlines the importance the company attaches to this segment.

Taking these factors and the historical development into account, the growth rates of the GMV driver are explained below and then presented in Table 1.

With a CAGR of 13,8% over the last six years, the number of active customers has been the primary GMV driver for Zalando. However, in 2023 the number of active customers declined by 2,3%. In 2024, the European economy will still be characterized by great uncertainty (McKinsey, 2023). Zalando is still expected to achieve a small increase in its active customer base, driven by new customer growth outside the DACH region. From 2025, the European economy is expected to stabilize, consumer confidence to return to previous levels and Zalando's expansions to bear fruit. This will lead the way back to an earlier growth in the number of active customers of 13,8%. Without further market expansion, growth rates could level off from 2029 due to high market penetration and competition. By 2031 Zalando could serve 90 m active customers in Europe, which will be 12% of the European population².

Between 2017 and 2023, the average number of orders per customer at Zalando demonstrated a CAGR of 4%. However, there was a notable average decline of 2,6% in the final two years of this

² European population 2030: 739m (bpb, 2018)

period. The recent downturn is primarily due to a decrease in consumer confidence, which has resulted in reduced spending. It is assumed that the recent trend will not be halted in 2024. However, an increase in order frequency in the Offprice segment will improve the growth rate slightly compared to 2022. After that, a gradual return to the 2021 level of 5,2 orders per customer is expected, which will be reached in 2028 and remain stable from then on.

Contrary to the other metrics, the average basket size has shown recent improvement, with a 5,1% increase in 2023 despite a 6-year CAGR of -1,3%. The recent development can be attributed to inflation for fashion products which was approximately 5% in 2023 (Chapter 3.1, Figure 2). It is assumed that inflation rates for fashion products will continue to fall in 2024 before reaching a "normal" level in 2025, which is in line with the OECD's forecasts for the development of inflation rates in Europe (OECD, 2023). The expected inflation rate for clothing and shoes in 2024 is 3%. This will be partially offset by rising orders in the off-price segment, where the average basket is lower due to discounts. This results in an increase in the average basket size of 2,5%. The average impact of inflation on clothing and footwear from 2020 to 2021 was 0,5%, a rate that is also forecasted to impact the average basket size from 2025 onwards.

In summary, these factors cumulatively result in a projected GMV growth of 1,5% for Zalando in 2024. This estimate aligns with McKinsey's forecasts for the fashion retail industry, as detailed in their State of Fashion Report 2024 (McKinsey, 2023). After this period, it is anticipated that GMV growth will experience an acceleration, followed by a stabilization phase extending from 2029 to 2031. The exact forecast is as follows:

Table 1: GMV Forecast

	2020	2021	2022	2023E*	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
# of active customers (in m)	38,7	48,5	51,2	50,0	50,5	53,1	60,4	68,7	78,2	85,3	89,5	91,3
YoY Growth (in %)	24,8%	25,3%	5,6%	-2,3%	1,0%	5,0%	13,8%	13,8%	13,8%	9,0%	5,0%	2,0%
Avg. # of orders per customer	4,8	5,2	5,1	4,9	4,8	4,9	5,0	5,1	5,2	5,2	5,2	5,2
YoY Growth (in %)	2,4%	8,6%	-1,9%	-3,2%	-2,0%	1,0%	2,0%	2,0%	2,0%	0,0%	0,0%	0,0%
# of orders (in m)	185,4	252,2	261,1	247,0	244,5	259,3	301,0	349,4	405,6	442,1	464,2	473,5
YoY Growth (in %)	27,8%	36,1%	3,5%	-5,4%	-1,0%	6,1%	16,1%	16,1%	16,1%	9,0%	5,0%	2,0%
Average Basket size (in €)	57,7	56,8	56,7	59,6	61,1	61,4	61,7	62,1	62,4	62,7	63,0	63,4
YoY Growth (in %)	1,9%	-1,6%	-0,2%	5,1%	2,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%
GMV (in € m)	10 696,0	14 325,0	14 805,5	14 724,6	14 938,8	15 921,8	18 579,3	21 680,5	25 299,2	27 722,3	29 262,7	30 006,1
YoY Growth (in %)	30,4%	34,0%	3,4%	-0,5%	1,5%	6,6%	16,7%	16,7%	16,7%	9,6%	5,6%	2,5%

** In 2023 only Q4 was forecasted*

4.1.1.2 GMV-Segmentation

The transition from GMV to revenue is not published exactly by Zalando. One would have to deduct the GMV associated with the PP and deduct the VAT payments. Then add back other merchandise revenue and the reconciliation to get the revenue from the wholesale business. To arrive at the total revenue, the revenue from commission fees in the PP business and other B2B & B2C service revenues must be added. As most of this information is not publicly available, the ratio between GMV and revenue is calculated for the specific segments, and predictions are made about how the ratios will develop in the future.

To determine this, the total GMV must first be divided into Fashion Store GMV and Offprice GMV. For Q4 2023, the expected Year-over-Year (YoY) change in GMV for both the Fashion Store and Offprice segment are anticipated to match the average YoY changes observed in the first three quarters of the year. The GMV of the Offprice segment is thus expected to increase by 17,5% in 2023. Due to the aforementioned preference of consumers to buy discounted and cheaper products in more difficult economic times, an increase of 17,5% is also expected for 2024. This will result in a slight decline in Fashion Store GMV of 1,3%. The Offprice segment is also expected to grow faster than the Fashion Store in 2025, primarily due to the faster expansion of the Zalando Lounge plus 3 countries compared to plus 2 countries in the Fashion Store in 2022. From 2026, the growth of Offprice and Fashion Store will be the same and therefore correspond to the growth of the overall GMV. As the ratios are interdependent, only the annual change in the Offprice segment was forecast and the percentage share of the Fashion Store in the Group's GMV was derived from this.

Table 2: GMV Segmentation

	2020*	2021	2022	2023E*	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Fashion Store GMV (in € m)		12 689,9	13 007,7	12 630,5	12 466,6	13 202,4	15 405,8	17 977,0	20 977,2	22 985,4	24 260,5	24 878,9
% of Group GMV		88,5%	87,9%	85,8%	83,5%	82,9%	82,9%	82,9%	82,9%	82,9%	82,9%	82,9%
Yoy Growth (in %)			2,5%	-2,9%	-1,3%	5,9%	16,7%	16,7%	16,7%	9,6%	5,5%	2,5%
Offprice GMV (in € m)		1 596,2	1 790,2	2 104,0	2 472,2	2 719,4	3 173,5	3 703,5	4 322,0	4 736,9	5 002,2	5 127,2
% of Group GMV		11,1%	12,1%	14,3%	16,5%	17,1%	17,1%	17,1%	17,1%	17,1%	17,1%	17,1%
Yoy Growth (in %)			12,2%	17,5%	17,5%	10,0%	16,7%	16,7%	16,7%	9,6%	5,6%	2,5%

*In 2020 no GMV segmentation was published and in 2023 only Q4 was forecasted

4.1.1.3 GMV conversion to Revenue

In a third step, the segment-specific GMV must be converted into revenue. The historical share of revenue in GMV was analyzed and adjusted for the forecast period to reflect Zalando's strategic shift to a platform model. The change is driven by the growth of the PP.

In the third quarter of 2023, the PP accounted for around 39% of Fashion Store GMV. Zalando aims to expand this percentage to 50% by 2025. Despite this ambition, the recent deceleration in the growth of the PP's share suggests that achieving this target may extend beyond 2025, potentially into 2026. However, it is anticipated that the PP's share will continue to grow, consequently amplifying the disparity between the GMV and revenue. Other factors such as the VAT rate, commission rates, ZFS commission rates, and other merchandise revenue also have an impact on the discrepancy between GMV and revenue. A detailed calculation that includes these variables can be found in the appendix³, where the assumptions and precise calculations are set out in detail.

In the Offprice segment, the share of revenue in GMV is significantly higher. The share fell from 91,3% in 2021 to 89,1% in 2023. The high percentage is attributable to the fact that the PP business only plays a subordinate role in the Offprice segment. It is expected that the PP business will continue to be integrated into the Offprice segment only gradually.

4.1.1.4 Other Segments

In the fourth and last step, AOS as well as the Reconciliation are forecasted. Both figures have no direct connection to the GMV.

AOS have experienced a strong growth phase with a CAGR of 28,9% in the last 3 years. This growth was partly driven by inorganic growth from the acquisition of Highsnobiety (included since 01.07.2022). The ZMS business in particular has a lot of potential. It currently accounts for around 2% of GMV, compared to 6% of a comparable program at Amazon (R. Strauss, personal communication, 9 November 2023). Strong growth is therefore expected to continue. However, the marketing capacities of the online shop are also limited, which implies that growth rates will equalize with those of the Fashion Store in the long term.

Following an internal steering change Zalando by Q1 2023, internal stock transfers and services are no longer reported as Fashion Store revenues. They are directly netted with the corresponding cost lines, leading to less Reconciliation (Zalando, 2023b). Following this, the Reconciliation for 2023 is expected to be €-266,5 m. Due to the change, it is not clear how this will develop, so a stable Reconciliation is assumed.

³ Appendix 2

Steps 3 and 4 result in the following total revenues:

Table 3: Revenue Forecast

	2020*	2021	2022	2023E*	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Fashion Store												
Revenue share of GMV (in %)		73,6%	70,4%	65,1%	63,3%	61,6%	60,4%	60,0%	59,5%	59,1%	58,6%	58,2%
Yoy Growth (in bps)			-320	-537	-175	-172	-118	-45	-44	-44	-44	-43
Revenue	7 257,7	9 342,3	9 160,4	8 216,5	7 891,9	8 130,1	9 305,1	10 777,5	12 483,1	13 577,0	14 224,4	14 479,5
Yoy Growth (in %)	21,7%	28,7%	-1,9%	-10,3%	-4,0%	3,0%	14,5%	15,8%	15,8%	8,8%	4,8%	1,8%
Offprice												
Revenue share of GMV (in %)		91,3%	89,5%	89,1%	88,6%	88,1%	87,6%	87,1%	86,6%	86,1%	85,6%	85,1%
Yoy Growth (in bps)			-178	-47	-50	-50	-50	-50	-50	-50	-50	-50
Revenue	978,1	1 457,5	1 602,8	1 873,8	2 189,4	2 394,7	2 778,7	3 224,3	3 741,1	4 076,6	4 279,8	4 361,2
Yoy Growth (in %)	48,3%	49,0%	10,0%	16,9%	16,8%	9,4%	16,0%	16,0%	16,0%	9,0%	5,0%	1,9%
All other segments												
Revenue	196,0	302,8	373,4	420,2	546,7	683,4	820,0	943,0	1 037,4	1 141,1	1 255,2	1 380,7
Yoy Growth (in bps)	-22,3%	54,5%	23,3%	12,5%	30,1%	25,0%	20,0%	15,0%	10,0%	10,0%	10,0%	10,0%
Reconciliation	-449,8	-748,6	-791,8	-266,5	-266,5	-266,5	-266,5	-266,5	-266,5	-266,5	-266,5	-266,5
Total revenue	7 982,0	10 354,0	10 344,8	10 243,9	10 361,4	10 941,6	12 637,4	14 678,4	16 995,1	18 528,2	19 493,0	19 954,9
Yoy Growth (in %)	23,1%	29,7%	-0,1%	-1,0%	1,1%	5,6%	15,5%	16,2%	15,8%	9,0%	5,2%	2,4%

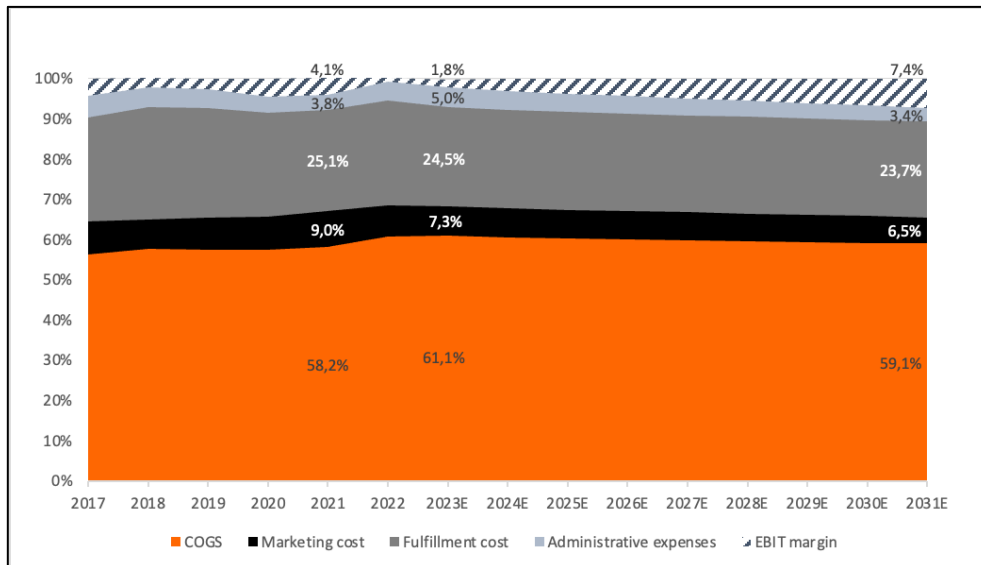
*In 2020 no GMV segmentation was published and in 2023 only Q4 was forecasted

4.1.2 Operating Costs

Zalando classifies its operating costs in cost of goods sold (COGS), selling and distribution costs, which include marketing and fulfilment costs, administrative expenses, other operating income, and other operating expenses. The last two have remained constant over the last few years, at 0,3% and 0,2% of sales respectively, and are not analyzed in more detail due to their minor significance. For the future, the average of the last 3 years is expected as a percentage of revenue, whereby the average of 2020 - 2022 is used for operating expenses due to one-off costs in 2023.

The analysis of Zalando's primary operational expenses, depicted in Figure 9, reveals a dynamic trend. In 2021, COGS amounted to 58,2% of sales. Due to factors such as "extended sales periods and increased price adjustments to reduce excess inventory" and persistent supply chain constraints (Zalando, 2023a), there was a significant increase of 260 basis points in 2022 with no subsequent reduction in 2023. In 2022, the company implemented efficiency measures, which had a particular impact in the second half of the year and were reflected in the reduction in marketing costs. By 2023, these efficiency gains were also visible in fulfilment costs, which were further optimized through the introduction of a minimum order value and efficient parcel bundling.

Figure 9: Operating costs & EBIT margin development (in % of sales)



* In 2023 only Q4 was forecasted

Costs of Goods Sold (COGS)

The main parts of the COGS are materials, personnel costs, allowances on inventories, third-party services, and infrastructure costs. Looking ahead the strategic shift to a marketplace should especially influence Zalando's COGS as no major direct costs are standing against the commission rate. In recent years Zalando was not yet able to gain from the shift. Notably, the costs associated with the ZFS, are included in COGS and not the fulfilment costs. Due to the cost-plus revenue model of ZFS, the margin is assumed to be significantly lower than 40%, thus lowering the gross margin. With increasing economies of scale, resolving value chain shortages, and experience of operating a marketplace it is assumed that Zalando will improve their gross margin.

Selling and Distribution Costs

Selling expenses consist of marketing and fulfilment costs, which are essentially made up of personnel costs, office and storage costs, depreciation and amortization (D&A) as well as legal and consulting costs. With a growing customer base and the associated increase in brand awareness, Zalando can continue to benefit from economies of scale in marketing and gradually reduce the proportion of costs to sales.

Besides the introduction of a minimum order value and improvements in parcel bundling, Zalando's fulfilment cost ratio profited from overall better order economics and the scaling of the PP in 2023. Although these factors will be intensified by Zalando, the share of fulfilment costs in revenue is expected to decrease only minimally. The reason for the opposite trend is rising personnel costs,

driven by inflation and a shortage of skilled labor in Germany, where 30% of the fulfillment centers are located.

Administrative Costs

Most of the administrative costs are personnel costs, additionally, they include office expenses, depreciation as well as legal and advisory expenses. In Q3 2023 they reached 5,6% of revenues and a record high since Q1 2019. The reasons for the increase in administrative costs are, on the one hand, costs in connection with share-based compensation. On the other hand, administrative costs increased due to the acquisition of Highsnobiety. As Highsnobiety and Zalando will not be merged but coexist, no administrative office or personnel costs will be saved. Additionally, an impairment for lease assets that are no longer used was made. Zalando's administrative expenses will benefit from economies of scale, additional potential lies in the inclusion of the administrative tasks of Highsnobiety. Therefore, it is assumed that Zalando will decrease its share of administrative costs of revenue by 20 basis points every year.

EBIT

The Management of Zalando targets an adjusted EBIT range between €300 m and €350 m for 2023. The adjusted EBIT equals the “EBIT before equity-settled share-based compensation, restructuring costs, acquisition-related expenses and significant non-operating one-time effects” (Zalando, 2023a).

In the long term, Zalando is aiming for an adjusted EBIT margin between 10-13%. The forecasted adjusted EBIT for 2023 falls directly in the middle of the targeted range of Zalando with €331,3 m. The long-term goal for Zalando's EBIT margin seems very optimistic, especially in a world in which the sustainable use of resources is becoming increasingly important. Experience shows that this will cause the cost of resources of all kinds to rise rather than fall. Except for the stock-based compensation, which is expected to gradually increase, all other adjustments are forecasted to be 0. The forecasted adjusted EBIT margin of 8,1% in 2031 incorporates increasing economies of scale, the strategic shift from a wholesaler to a hybrid model adding a marketplace, increasing costs of resources, industry trends, and the macroeconomic outlook.

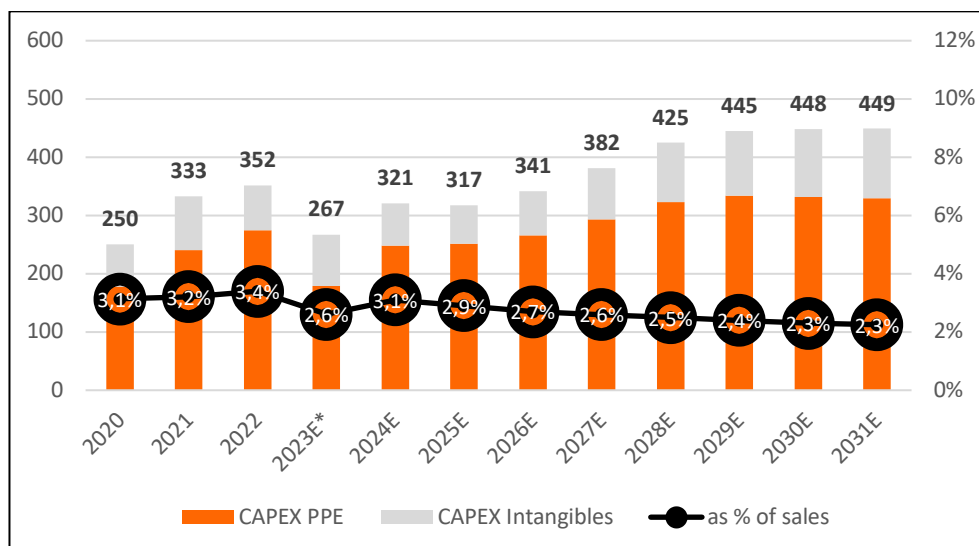
4.1.3 Depreciation & Amortization (D&A) & Capital Expenditures (CAPEX)

Zalando's non-current assets predominantly comprise intangibles, property, plant, and equipment (PPE), and lease assets. The substantial share of PPE reflects Zalando's extensive logistics network,

which includes 17 operational fulfilment centers of which 2 are in construction. In 2022, the company invested a total of €274 m in fulfilment centers across Germany, Poland, the Netherlands, and France. In the same year, Zalando bought the majority stake in Highsnobiety significantly boosting intangibles, adding nearly €80 m in goodwill. The rest of the intangible assets are related to internally developed software. The primary leased assets are buildings, encompassing fulfilment centers, office spaces, and outlet stores.

Due to the challenging macroeconomic climate in 2023, Zalando deferred investments in new fulfilment centers, leading to capital expenditure (CAPEX) of €267 m, about 34% lower than the previous year. In the years 2020 until 2022, CAPEX consistently ranged between 3,1% and 3,4% of revenue, but in 2023, it dropped to only 2,6% due to these postponements. However, CAPEX is anticipated to rebound to its usual levels by 2024. The last scheduled fulfilment center is expected to be completed by 2025. Assuming no major expansions in the USA or Asia, growth-related CAPEX will be significantly reduced, shifting the focus mainly to maintenance-related expenditures from 2025 onward. The fact that Zalando's current capacities are not fully utilized confirms the assumption that Zalando can do without growth CAPEX in the future. This underutilization became clear in 2023 when Zalando opened its logistics network for shipping to external online retailers (Zalando, 2023e). CAPEX is therefore shrinking in relation to revenue.

Figure 10: CAPEX development; Source: (Zalando, 2023a) & own analysis

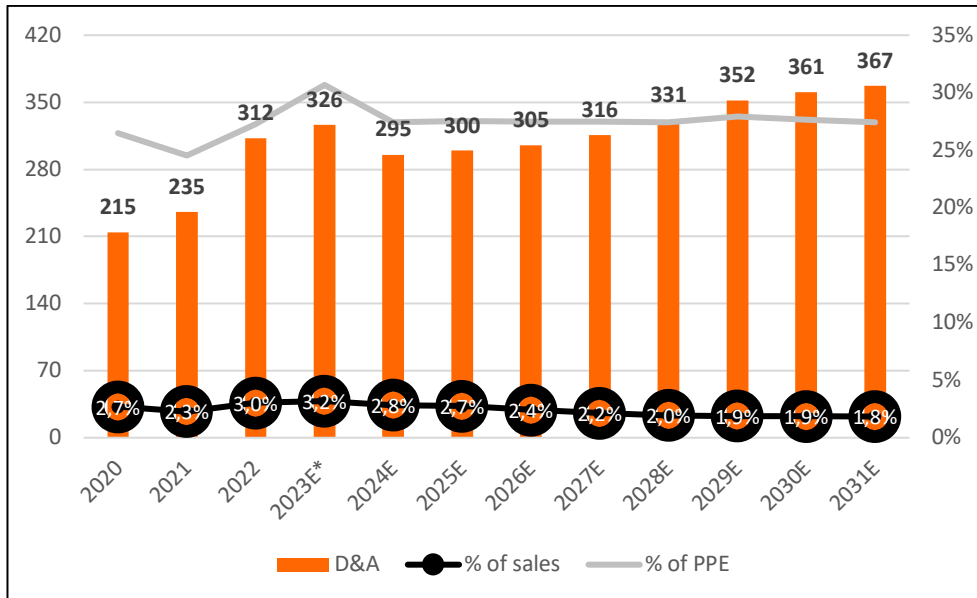


* In 2023 only Q4 was forecasted

Concerning D&A, Zalando not only recognizes intangible assets and PPE but also depreciates its leased assets. However, the bulk of this depreciation is attributed to PPE. In the past three years,

D&A has averaged about 27,5% of PPE and 2,8% of revenues. Compared to PPE, the rate of D&A is expected to remain relatively stable, while regarding revenue, D&A will decrease.

Figure 11: D&A development; Source: (Zalando, 2023a) & own analysis



* In 2023 only Q4 was forecasted

4.1.4 Working Capital (WC)

WC is determined by deducting current liabilities from current assets. In recent years, both these components have witnessed a rise for Zalando, attributable to an uptick in business volume and expansion of operations. Notably, the sum of accounts payables and prepayments received surpassed the sum of inventories and accounts receivable, leading to a negative Working capital. This trend was primarily driven by the increase in PP activities. When a customer purchases a product linked to the PP, Zalando is obliged to transfer the payment less fees to the partner. As Zalando only transfers to the partner once a month, these payments are temporarily categorized as payables (Marketrock, 2023).

Looking ahead, it is projected that the Days Sales Outstanding (DSO) will remain stable at around 30 days, resulting in a proportional increase in receivables as revenues grow. It is therefore to be expected that current payment methods such as "buy now, pay later" will only appeal to a certain target group that is already using them today. Similarly, the Days Inventory Outstanding (DIO) is expected to stay consistently below 100 days. Over the next three years, as the PP continues to expand robustly, payables are anticipated to rise. Following this period of expansion, the growth

rate in trade payables is expected to moderate. It is expected that the advance payments received will amount to 0.5% of revenue and thus follow the revenue growth.

Other financial assets are not included in other assets/liabilities to avoid double counting. They are added to cash and cash equivalents and considered when calculating net debt. The other assets/liabilities shown in Table 4 mainly consist of assets such as VAT receivables and rights to take back goods as well as liabilities such as income tax payables, VAT liabilities and obligations to refund returns to customers.

Table 4: WC Forecast

Working Capital	2020	2021	2022	2023E*	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Accounts receivable (in € m)	602,5	727,4	913,0	842,0	851,6	899,3	1038,7	1206,4	1396,9	1522,9	1602,2	1640,1
as % of sales	7,5%	7,0%	8,8%	8,2%	8,2%	8,2%	8,2%	8,2%	8,2%	8,2%	8,2%	8,2%
Days Sales Outstanding	28	26	32	30	30	30	30	30	30	30	30	30
Inventories (in € m)	1361,2	1547,4	1809,5	1639,0	1644,3	1727,7	1988,9	2302,4	2656,9	2886,8	3026,9	3088,2
as % of sales	17,1%	14,9%	17,5%	16,0%	15,9%	15,8%	15,7%	15,7%	15,6%	15,6%	15,5%	15,5%
Days Inventory Outstanding	108	94	105	96	96	96	96	96	96	96	96	96
Accounts payable (in € m)	2050,5	2437,0	2934,1	2827,3	2836,3	2980,3	3430,8	3730,9	4166,5	4527,1	4746,8	4842,9
as % of sales	44,7%	40,4%	46,7%	45,2%	45,2%	45,2%	45,2%	42,5%	41,1%	41,1%	41,1%	41,1%
Days Payable Outstanding	163	148	170	165	165	165	165	155	150	150	150	150
Prepayments received (in € m)	47,1	40,6	49,2	31,3	31,4	33,0	37,9	43,9	50,7	55,1	57,8	58,9
as % of sales	1,0%	0,7%	0,8%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%
Other assets/ liabilities (in € m)	-94,9	-136,0	-96,0	-115,4	-112,3	-81,6	-88,5	-96,6	-105,4	-109,9	-111,4	-110,4
as % of sales	-1,2%	-1,3%	-0,9%	-1,1%	-1,1%	-0,7%	-0,7%	-0,7%	-0,6%	-0,6%	-0,6%	-0,6%
WC (in € m)	-228,8	-338,8	-356,8	-493,0	-484,1	-467,9	-529,7	-362,6	-268,8	-282,3	-286,8	-283,9
as % of sales	-2,9%	-3,3%	-3,4%	-4,8%	-4,7%	-4,3%	-4,2%	-2,5%	-1,6%	-1,5%	-1,5%	-1,4%
Δ WC (in € m)	27,2	110,0	18,0	136,2	-8,9	-16,3	61,8	-167,1	-93,8	13,5	4,5	-2,9

* In 2023 only Q4 was forecasted

4.1.5 Share-based Compensation

Share-based payments are equity-settled instruments granted to employees and managers. In 2022 expenses of €72,5 m have been recognized as share-based compensation. Zalando adds those back to arrive at its adjusted EBIT. These payments are not added back to the cash flows in the valuation and thus remain an expense. This treatment aligns with the perspective of Damodaran, who asserts that compensation, whether in cash, stock, or options, consistently constitutes an expense for the company (Damodaran, 2005). Additionally, previously granted options have to be incorporated in the valuation as they have a claim on equity. Given the weighted average exercise price of the options is €37,6 per share, and the current share price stands at €22,3, these options are not currently exercisable. Consequently, they do not have a material impact on Zalando's valuation under the prevailing market conditions.

4.1.6 WACC

The formula for calculating the WACC has already been presented in chapter 2. In this chapter, the individual components are worked out to finally determine the appropriate discount rate for the FCFE.

Table 5: WACC Calculation

Bund 10Y Germany	2,3%
Equity risk Premium	5,8%
Beta	1,49
Cost of Equity	10,9%
Bund 10Y Germany	2,3%
Credit Premium	3,2%
Cost of debt before taxes	5,5%
Tax Shield	0,69
Cost of Debt (after tax)	3,8%
Market Value Equity	5 767,6
Market Value Debt	1 473,5
% Equity	79,7%
% Liabilities	20,3%
WACC	9,5%

4.1.6.1 Cost of Equity

To calculate the cost of Equity the CAPM is used as described in formula 7.

The forecasted cash flows are denominated in Euro and have a specific forecasting period of 7 years plus the terminal value which accounts for all cashflows after that period. Due to the characteristics of the cash flows the 10-year German Government Bond was chosen as the proxy for the **risk-free rate**. On December 5, 2023, the bond rate was 2,3% (Bloomberg, 2023).

To calculate the **market risk premium** (MRP) appropriate for Zalando's cash flows, all markets in which Zalando operates today were analyzed as no further expansion plans have been announced. Damodaran publishes the market risk premia for each country and updates them every 6 months. The data obtained was published on July 14, 2023. Zalando's financial reports only provide information on the sales split in DACH and RoE. Therefore, an average is calculated across all

countries in the two categories and the two resulting values are weighted based on revenue to determine the final MRP (Damodaran, 2023). The exact calculation can be seen in the Appendix⁴.

The **beta** was obtained from Refinitv and is calculated using common stock price volatility relative to market price volatility for a 5-year duration using a least square linear regression. The beta amounts to 1,49.

4.1.6.2 Market Value of Equity

The market value of equity is equal to the market capitalization. It is calculated by multiplying the share price, in this case, the closing price from December 4, 2023 (€22,25) times the shares outstanding (259,2m). The market value of equity is therefore €5.767,6m. The capital structure of Zalando only deviates minimally and is therefore expected to be constant over the forecasting period.

4.1.6.3 Cost of Debt

The risk-free interest rate has already been determined for the cost of equity and is identical for the calculation of the cost of debt. As no credit rating of Zalando is publicly available, a synthetic rating was calculated. For this purpose, the interest coverage ratio was obtained to determine the spread using the table published by Damodaran (Appendix X). The interest coverage ratio is 3,2, which results in a credit rating of A- and an according spread of 1,6%. Adding the spread to the risk-free rate brings a cost of debt before tax of 5,5%. The effective tax rate paid by Zalando was relatively constant in the range between 30% and 33% in the last years. Only in 2022, they were at 56% due to one-time effects. The average, excluding 2022 results in an effective tax rate of 31,1% which will be used for the forecasting period. The cost of debt after tax is therefore 3,8%

4.1.6.4 Market Value of Debt

The market value of debt for Zalando is primarily composed of convertible bonds and leases. In its reported figures, Zalando divides the convertible bonds into an equity and debt portion, which is why no further adjustment is required. However, the debt portion of the bond was only measured at market value at the beginning and will be amortized from then on. The market value of Zalando's convertible bond is €802,7m. Zalando measures lease liabilities at fair value, which in the case of lease liabilities is the best determinable market value. The €670,1m of leasing liabilities are therefore

⁴ Appendix 3

added to the market value of the convertible bonds. The total market value of debt is therefore €1.427,8m.

4.1.7 Terminal Growth Rate

The significance of the TV was explained in section 2.2 and is a key component of this valuation. It is assumed that Zalando's market reach is limited to Europe. Consequently, the growth rate is mainly influenced by two factors: the economic dynamics in Europe and the inflation rate of the Euro.

Chapter 3.1 contains a detailed projection that expects an annual increase in the real GDP growth rate in the eurozone of 1,9% until 2028. No specific forecasts are available for the period thereafter, so a constant growth rate of 1,9% is assumed. At the same time, the inflation rate for clothing and footwear is projected at around 0,5%, as described in section 3.1.

As the focus of this assessment is on real GDP growth rates, it is advisable to set the final growth rate so that it does not exceed the sum of the inflation rate and the real GDP growth rate. Therefore, the final growth rate is expected to be exactly equal to the aggregate of these two rates, resulting in a value of 2,4%.

4.1.8 Enterprise Value

The derived enterprise value, which represents the valuation of the entire company, amounts to €9.119m as of 31 December 2023. Table 6 summarizes the most important building blocks of the valuation. The NPV of the FCFF are calculated by discounting the cashflows from 2024 until 2031 with the WACC.

Table 6: Enterprise Value

€m	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Sales	10 244	10 361	10 942	12 637	14 678	16 995	18 528	19 493	19 955
Operating Costs	-10 060	-10 044	-10 530	-12 086	-13 950	-16 050	-17 386	-18 175	-18 486
EBIT	184	317	412	551	729	946	1 142	1 318	1 469
Effectice Tax rate	30%	31%	31%	31%	31%	31%	31%	31%	31%
EBIT * (1-Tax)	128	219	284	380	502	651	787	908	1 012
D&A	326	295	300	305	316	331	352	361	367
Δ Working capital	136	-9	-16	62	-167	-94	14	4	-3
CAPEX	-352	-267	-321	-317	-341	-382	-425	-445	-448
FCFF	239	238	246	430	310	507	728	829	928
Terminal value growth rate		2,4%							
WACC		9,5%							
NPV FCFF		2 601							
PV TV		6 518							
Enterprise Value		9 119							

4.1.9 Equity Value

To arrive at the equity value, non-equity claims must be deducted from the Enterprise value, which includes non-operating assets and non-operating liabilities. The most important figure of these assets is net debt which is the residual of debt and cash and cash equivalents. To better reflect the current solvency of Zalando the market value of debt was used to calculate net debt. Adding Cash and cash equivalents, net debt arrives at €1.000m.

Zalando does not have any preferred stock and minority interest is neglected as the market value of three investments of Zalando as a minority shareholder cannot be quantified. The influence on the total valuation is minor as the value of all investments is expected to be under €10m.

The two issued convertible bonds have a conversion price of €87,6 and €92,3 which represents a conversion premium of 294% and 315% respectively. With remaining maturity of 1,6 and 3,6 years, it is highly unlikely that these bonds will be converted into equity and the options are not further considered in the valuation.

After deducting net debt from the enterprise value, the equity value amounts to €10.119 m. Dividing this equity value by the total number of shares outstanding results in a value per share of €38,9. This calculated value per share corresponds to an increase of 75% compared to the current market price, which indicates considerable upside potential. The summary of this calculation can be seen in Table 7:

Table 7: Equity Value

Enterprise Value	9 119
Net Debt (Cash)	-1 000
Equity Value	10 119
Share count	260,4
Target share price	€38,86
Current share price	22,25
Upside (Downside)	75%

4.1.10 Sensitivity Analysis

The DCF valuation method, being highly sensitive to its assumptions, necessitates a sensitivity analysis, which concentrates on the TV growth rate and the WACC. The corresponding sensitivity of these variables is systematically presented in Table 8. Changes of $\pm 0,02\%$ in the TV growth rate and $\pm 0,05\%$ in the WACC, cause the share price to fluctuate between €35,3 and €43,0. In line with theoretical expectations, the share price increases with a reduction in the WACC or an increase in the TV growth rate, and vice versa. The target price of Zalando is expected to be in the range of €37,0 and €40,8 per share.

Table 8: Sensitivity Analysis

		TV growth rate				
		2,0%	2,2%	2,4%	2,6%	2,8%
WACC	8,5%	39,7	40,5	41,2	42,1	43,0
	9,0%	38,5	39,3	40,0	40,8	41,7
	9,5%	37,4	38,1	38,9	39,6	40,5
	10,0%	36,3	37,0	37,7	38,5	39,3
	10,5%	35,3	36,0	36,6	37,4	38,1

4.2 Relative Valuation

The concept of relative valuation was explained in Chapter 2.3 and is implemented in this Chapter. The two key building blocks of relative valuation are firstly the determination of a suitable peer group and secondly the definition of multiples.

4.2.1 Peer Group

When identifying a suitable peer group, it is important to consider companies in the same industry and region, with comparable size and business activities. In the first step, a longlist containing 32

companies was identified⁵. The list includes companies from the Apparel retail sector, Online services sector, as well as marketplace provider. Zalando is primarily operating in the European e-commerce fashion industry and shares large operational similarities with Aboutyou and Boohoo. These companies also function as e-commerce retailers specializing in fashion products, predominantly in the European market. While Zalando has a higher market capitalization, absolute revenue, and EBITDA, these companies have comparable revenue growth which is why they are included in the Peer group.

The Chinese company VIPshop is similar in terms of its business activity and size. It shares characteristics with Zalando in terms of both absolute figures and growth rates for sales and EBITDA. But VIPshop represents a unique context due to its primary activity in the Chinese market. The geographic focus introduces distinct regulatory, economic, and political risk factors. Such factors lead to being valued at a discount compared to an otherwise equivalent company operating in the US or European markets (McGeever, 2023). VIPshop was therefore not included in the final Peer group.

In addition, traditional fashion companies such as H&M, Puma, and Hugo Boss were also considered. Despite deriving most of their revenue from brick-and-mortar stores, these companies are increasingly focusing on digitalization, evidenced by a significant percentage of their sales occurring online. Their online shops make them comparable to Zalando. The initial consideration for the peer group included H&M, Adidas, and Next. However, significant disparities in their sizes and growth rates led to their exclusion from the final selection. Hugo Boss and Puma are more common with Zalando in terms of revenue and EBITDA growth. Even though their margin is slightly higher they were considered in the final peer group.

Moreover, the shift in Zalando's strategy towards emphasizing marketplace operations necessitates a comparison with platform companies like eBay, Etsy, and Allegro. This strategic pivot might lead investors to assess Zalando in a similar light to these marketplace platforms, given the increasing alignment in their business models. The marketplace models are characterized by a significantly higher margin than Zalando. However, as Zalando plans to generate almost 50% of its sales with the marketplace model in the future, an independent check regarding the marketplace multiples will be done.

⁵ Appendix 4

The final Peer group as well as the additional marketplace group and their characteristics can be seen in Table 9.

Table 9: Peer group

Company Name	Industry Group	Market Capitalization (in € m)	Revenue 2022 (in € m)	Revenue CAGR 19-22 (in %)	EBITDA 2022 (in € m)	EBITDA margin (in %)
Zalando SE		5 876,7	10 344,8	16,9%	393,1	3,8%
Peer group						
ABOUT YOU Holding SE	Fashion e-commerce	790,8	1 904,6	36,8%	-151,5	-8,0%
Boohoo Group PLC	Fashion e-commerce	554,6	2 010,2	11,9%	35,6	1,8%
Puma SE	Traditional fashion reta	8 446,2	8 465,1	15,4%	999,2	11,8%
Hugo Boss AG	Traditional fashion reta	4 711,2	3 651,4	8,2%	676,5	18,5%
Marketplace Group						
eBay	Marketplace	19 914,0	9 152,4	5,9%	2 927,5	32,0%
ETSY Inc	Marketplace	8 911,1	2 397,8	48,6%	454,2	18,9%
Allegro.eu SA	Marketplace	7 379,9	1 922,1	46,6%	441,3	23,0%

4.2.2 Multiple Calculation

For the valuation of Zalando, the chosen multiples are EV/EBITDA and EV/Sales. These metrics are advantageous as they remain unaffected by the company's capital structure. The PER multiple was excluded from consideration due to the negative earnings reported by other fashion e-commerce companies, such as Aboutyou and Boohoo. Comparing Zalando solely with Puma and Hugo Boss would not adequately mirror the diverse operations of Zalando.

Forward-looking multiples for the upcoming 12 months were employed to better align with the DCF valuation projected for December 31, 2023. The multiples were sourced from Refinitiv (Refinitiv, 2023) and to arrive at the final multiple the revenue-weighted average across the peer group was considered. This average was then multiplied by Zalando's anticipated 2024 revenue and EBITDA, resulting in an estimated EV. After adjusting for net debt, the equity value was derived and then divided by the forecasted average number of diluted shares for 2024 to arrive at the price per share. The selection of diluted shares aims to more accurately reflect the impact of issued options. Detailed insights of the multiples and the Zalando share price derived from them are shown in Table 10.

Table 10: Multiple Valuation

Company Name	Revenue 2022 (in € m)	Forward EV/ EBITDA	Forward EV/ Sale
Peer group			
ABOUT YOU Holding SE	1 904,6	37,0x	0,4x
Boohoo Group PLC	2 010,2	8,8x	0,4x
Puma SE	8 465,1	8,5x	1,0x
Hugo Boss AG	3 651,4	6,6x	1,3x
Weighted Average		11,5x	0,9x
Median		8,7x	0,7x
Value per share		33,5	39,9
Marketplace Group			
eBay	7 542,1	6,3x	2,0x
ETSY Inc	2 397,8	14,1x	3,8x
Allegro.eu SA	1 922,1	13,0x	3,2x
Weighted Average		9,0x	3,2x
Median		13,0x	3,2x
Value per share		26,9	104,0

The relative valuation results in a price range for Zalando between €33,5, as suggested by the EV/EBITDA multiple, and €39,9, as suggested by the EV/Sales multiple. The EV/Sales value falls directly in the range derived from the sensitivity analysis, therefore confirming the DCF value. The slightly lower valuation by the EV/EBITDA multiple could be due to the composition of the peer group. The selected peer group hypothesizes that Zalando is valued partly as a fast-growing e-commerce company and partly as a traditional mature retail business. However, the significant influence of Puma in the peer group, a company with similar growth rates as Zalando, could lead to an overemphasis on traditional retail characteristics in the valuation of Zalando.

Building on the previously discussed point, it is conceivable to consider Zalando's valuation as being similar to that of a marketplace. Under this assumption, the share prices are estimated at €26,9 and €104,0. However, this valuation approach does not seem to be in line with Zalando's current operational reality. Although Zalando has initiated a strategic realignment, the company has yet to demonstrate the margins and growth rates characteristic of a marketplace business model. Under the hypothesis that Zalando will generate 50% of sales from the PP by 2026, the valuation of €104,0 per share derived from the EV/sales multiple indicates significant potential for the stock. If Zalando

succeeds in increasing its profit margins in parallel with sales growth, the company could justifiably be partially valued as a marketplace.

4.3 Final Target Price

To arrive at the final target price the relative valuation is combined with the DCF valuation. The share price derived from the DCF is weighted with 80% as it is assumed, that the DCF valuation better reflects the fair value of Zalando. The EV/EBITDA and EV/Sales multiple valuations are weighted with 10%, respectively. The final target price is therefore €38,4, which is equal to a buy recommendation.

Table 11: Final Target Price

	Target share price (31.12.2023)	Weight
DCF	€38,86	80%
EV/EBITDA	€33,53	10%
EV/Sales	€39,95	10%
Total	€38,43	100%

5 Comparison with Investment Bank

In this section, the previously determined valuation of Zalando is compared with the equity research paper published by Credit Suisse on 3 August 2023. Their target share price for the next 12 months was determined at €42,0 and thus 8% above the price level determined by the DCF in this dissertation. The upside potential related to the share price at the time of the valuation is still lower in the Credit Suisse valuation as the stock price of Zalando decreased by 24% between the two valuation dates.

In terms of general methodology, Credit Suisse uses a DCF valuation with a specific forecast period until 2030 in combination with a relative valuation. They argue that the relative valuation is needed to reflect that Zalando's peers are trading towards a record-low multiple. Credit Suisse does not disclose the peer group it uses for the relative valuation or the weighting of the multiples and the DCF valuation. The methodology itself is therefore quite similar, while the final value is different.

To better understand the differences in the value, in Table 12, the key parts of the DCF valuation are shown for both Credit Suisse and this Dissertation.

Table 12: Comparison of Dissertation forecast with Credit Suisse forecast

in € m	Dissertation		Credit Suisse	
	2024	2030	2024	2030
GMV	14 939	29 263	16 404	26 745
Group Revenues	10 361	19 493	10 894	17 722
<i>CAGR</i>	11,1%		8,4%	
EBIT	317	1 318	473	1 077
<i>EBIT margin</i>	3,1%	6,8%	4,3%	6,1%
FCFF	238	829	360	755
<i>WACC</i>	9,5%		8,5%	
<i>Terminal Growth rate</i>	2,4%		1,0%	

It is noticeable that Credit Suisse assumes higher GMV, revenue, EBIT, and FCFF in 2024, while the dissertation shows higher figures in 2030. The Credit Suisse Equity Report was published after the disclosure of the Q2 statement, which is why the revision of the GMV and sales targets for 2023 could not yet be considered. Credit Suisse therefore assumes that revenue will increase again by 1% in 2023 and by 5% in 2024. Based on the canceled targets in Q3 2023 and the recently published State of Fashion Report 2024 by McKinsey, which addresses great uncertainty in the fashion

industry, the dissertation assumes that the fashion industry will not recover until mid-2024. Revenue will therefore fall by 1% in 2023 and rise by 1% in 2024. After that, both the Credit Suisse forecast and the dissertation predict rising growth rates, whereby the growth rates in the Credit Suisse report are at a maximum of 11% and reach up to 16% in the dissertation. This explains the catch-up effect of the dissertation until 2030.

The Credit Suisse Report doesn't go into great detail about the reasoning of the forecast. In terms of GMV growth, they say that Zalando is on a good track to reach the targeted €30bn GMV in the mid-term. A differentiated customer offering, the onboarding of new brands such as Hoka and Lululemon, the scope for higher penetration rates outside the top 5 markets, and the rising number of insolvencies in Europe are the main reasons that should lead to higher market shares for Zalando and thus to rising GMV and revenue. Regarding the EBIT margin, they forecast an increase due to the increasing PP.

In general, the argumentation is very similar to the dissertation. Due to the lack of detail in the Credit Suisse report, more factors are cited in the dissertation, particularly concerning macroeconomic figures. It is unclear whether these factors were not included in the valuation or simply not included in the report.

The WACC and Terminal growth rate also differ from the dissertation. If the Credit Suisse figures for WACC and terminal growth rate are used in the dissertation, this results in a share price of €36,4. This shows that the higher growth rates of Credit Suisse in the FCFF 2024 have a greater impact on the valuation than higher growth in the dissertation in later years.

It can be concluded that both analyses issue a buy rating and see significant upside potential for Zalando's stock. The discrepancy is mainly due to the time difference. The Credit Suisse report assumes a faster recovery, which could not be emphasized by the key financial figures published in Q3.

6 Conclusion

This dissertation set out to enable the reader to make a better investment decision and issue a recommendation on whether to buy, hold, or sell the Zalando share. The detailed analysis of the historical financial performance, strategic alignment, macroeconomic situation, and industry drivers ultimately led to a target share price of €38,4. Compared to today's share price, the upside potential is 73% and therefore a buy recommendation is issued for the Zalando share.

The price is predominantly determined by the DCF method, as Zalando's business model is considered unique, and the relative valuation can therefore only be utilized to a limited extent. However, in order not to neglect the market sentiment, the peer group was put together in such a way that it reflects Zalando as closely as possible. The comparison with Credit Suisse's Equity report reveals few differences primarily attributed to varying publishing dates, as Zalando's revised goals for 2023 resulted in a more pessimistic short-term outlook in the dissertation. Credit Suisse is also issuing a buy recommendation and set the price target to €42,0.

The limitations of the determined target price lie in the uncertainties of the valuation. Slower-than-expected online channel growth post-Covid-19, changing consumer fashion trends, loss of key third-party brands, disruptive competitor action, and an extended consumer demand slowdown could influence the target share price. The assumptions are designed to reflect all risks and opportunities for the development of Zalando as accurately as possible. However, as we have already described in Chapter 2, it is impossible to eliminate all uncertainties.

The Investment hypothesis can be summarized as the following:

After difficult years 2023 and 2024, which are mainly due to uncertain consumer demand, Zalando is expected to enter a growth phase from 2025 onwards, driven by rising consumer demand and the improvement of the customer offering. This growth could be further supported by a shift in consumer behavior towards more online fashion purchases, enabling Zalando to target €30bn in GMV in the mid-term. The company's transition to a marketplace model, combined with cost-efficiency strategies, has already improved profitability and holds promise for further margin enhancements in the mid-term. If Zalando transitions effectively to an authentic marketplace model and is perceived as such by investors, the company's previous peak valuations could be attainable once more. This prospect should not be seen as anything more than a potential future opportunity.

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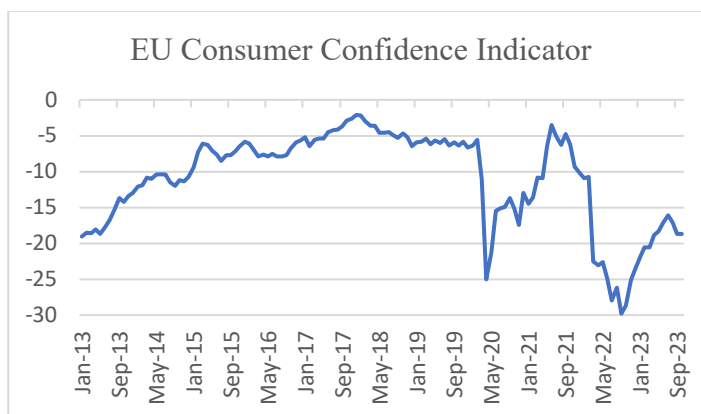
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7 Appendix

7.1 Appendix 1: Consumer Confidence

Figure A1: EU Consumer Confidence Indicator



7.2 Appendix 2: GMV to Revenue Conversion Fashion Store

Table A1: Assumptions for revenue percentage of GMV in the Fashion Store:

Assumptions for Fashion store Revenue/GMV share	2023E*	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Wholesale share of Fashion Store GMV	61%	57%	53%	50%	49%	48%	47%	46%	45%
1-VAT	84%	84%	84%	84%	84%	84%	84%	84%	84%
Other merchandise revenue	4%	4%	4%	4%	4%	4%	4%	4%	4%
PP sshare of Fashion Store GMV	39%	43%	47%	50%	51%	52%	53%	54%	55%
Comission rate	14%	14%	14%	14%	14%	14%	14%	14%	14%
% of Partner GMV shipped with ZFS	58%	64%	70%	75%	76%	77%	78%	79%	80%
ZFS comission rate	20%	20%	20%	20%	20%	20%	20%	20%	20%
Revenue share of GMV	65,1%	63,3%	61,6%	60,4%	60,0%	59,5%	59,1%	58,6%	58,2%

The following is an approximation and is completely based on assumptions. All content points published by Zalando have been taken into consideration, but deviations may still occur:

Zalando published a GMV to revenue bridge in their Financial Update 2022 on slide 18 (Zalando, 2023d). They do not provide the exact numbers, but the methodology is visualized. In Q3 Zalando published that the PP share of Fashion Store GMV is 38,8% we forecast a slight further increase to 39% by the end of the year, resulting in a Wholesale percentage of 61%. The VAT rate is given by Zalando in the financial update and is 16%. We forecast that other merchandise value like B2B bulk sales revenue or Zalon by Zalando will be 4% of total GMV. The commission rate for products sold via the PP is expected to be 14%, Zalando published that the rate is currently between 5% and 25% and depends on the product category. The % of PP GMV shipped with ZFS is expected to be the same as in Q3 2023 with 58% and the commission rate for ZFS is expected to be at 20%. This number was derived from the information that ZFS is a cost-plus revenue model and the fulfilment

cost ratio lies at 24,5%. However, in addition to the actual logistics costs, this also includes warehouse costs, R&D, and other costs that are not calculated for ZFS. In addition, a Zalando parcel contains on average 3-4 products from 2 different brands, which means that the fulfilment costs are also shared. As a result, the commission rate for ZFS is set lower than the fulfilment cost ratio.

7.3 Appendix 3: Equity Risk Premium Calculation

<i>Country</i>	Equity Risk Premium	Weight
Belgium	5,9%	
Croatia	7,9%	
Czech Republic	5,9%	
Denmark	5,0%	
Estonia	6,1%	
Finland	5,6%	
France	5,7%	
Hungary	7,9%	
Ireland	5,9%	
Italy	8,3%	
Latvia	6,8%	
Lithuania	6,3%	
Luxembourg	5,0%	
Netherlands	5,0%	
Norway	5,0%	
Poland	6,3%	
Romania	8,3%	
Slovakia	6,3%	
Slovenia	6,8%	
Spain	7,4%	
Sweden	5,0%	
Switzerland	5,0%	
United Kingdom	5,9%	
MRP - RoE	6,2%	56,4%
Austria	5,6%	
Germany	5,0%	
Switzerland	5,0%	
MRP - DACH	5,2%	43,6%
Total ERP	5,8%	

7.4 Appendix 4: Market Value of Debt

Formula 11: Market Value of Debt

$$\text{Market Value Debt} = C * \left(\frac{1 - \frac{1}{(1 + K_D)^t}}{K_D} \right) + \frac{\text{Total Debt}}{(1 + K_D)^t}$$

where,

C = Interest Expense

K_D = Current Cost of Debt

t = Weighted average maturity

The convertible bonds lead to total interest costs of €3,4m, the cost of debt before taxes is 5,5% and the weighted average maturity is 2,7 years. This results in a market value of debt of €802,7m.

7.5 Appendix 4: Long list peer group

Company Name	GICS Industry Name	Market Capitalization (in € m)	Revenue 2022 (in € m)	Revenue CAGR 19-22 (in %)	EBITDA 2022 (in € m)	EBITDA CAGR 19-22 (in %)	EBITDA margin (in %)	Free Cash Flow 2022 (in € m)
Amazon.com Inc	Broadline Retail	1 415 704,9	480 265,7	24,3%	35 275,5	9,3%	7,3%	-38 179,6
Industria de Diseno Textil SA	Specialty Retail	118 121,1	32 569,0	4,8%	8 441,0	2,3%	25,9%	2 594,0
Adidas AG	Textiles, Apparel & Luxury Good	34 819,2	22 511,0	-1,6%	2 219,0	-17,6%	9,9%	170,0
H & M Hennes & Mauritz AB	Specialty Retail	24 992,2	20 480,7	-2,5%	2 746,2	0,6%	13,4%	731,7
eBay Inc	Broadline Retail	19 914,0	9 152,4	5,9%	2 927,5	8,3%	32,0%	-1 645,5
Next PLC	Broadline Retail	11 907,8	5 742,7	4,3%	1 526,0	1,3%	26,6%	507,9
ETSY Inc	Broadline Retail	8 911,1	2 397,8	48,6%	454,2	53,5%	18,9%	-589,7
Puma SE	Textiles, Apparel & Luxury Good	8 467,3	8 465,1	15,4%	999,2	13,3%	11,8%	385,7
Delivery Hero SE	Hotels, Restaurants & Leisure	8 432,4	8 577,3	90,7%	-995,8	22,2%	-11,6%	-2 734,6
Ralph Lauren Corp	Textiles, Apparel & Luxury Good	7 913,8	5 944,8	2,4%	914,0	14,7%	15,4%	302,1
Vipshop Holdings Ltd	Broadline Retail	7 688,5	13 974,6	5,5%	1 063,5	11,4%	7,6%	627,1
Allegro.eu SA	Broadline Retail	7 376,3	1 922,1	46,6%	441,3	12,3%	23,0%	-377,2
Cts Eventim AG & Co KgaA	Entertainment	6 086,4	1 925,8	10,1%	321,6	4,0%	16,7%	260,8
Marks and Spencer Group PLC	Consumer Staples Distribution &	6 017,0	13 575,8	6,0%	1 351,9	-1,7%	10,0%	605,8
Zalando SE	Specialty Retail	5 834,5	10 344,8	16,9%	393,1	1,7%	3,8%	-39,3
Rightmove PLC	Interactive Media & Services	5 424,6	376,0	3,2%	278,0	2,6%	73,9%	146,6
Scout24 SE	Interactive Media & Services	4 894,5	447,5	8,6%	243,4	14,1%	54,4%	60,6
Hugo Boss AG	Textiles, Apparel & Luxury Good	4 701,3	3 651,4	8,2%	676,5	-1,5%	18,5%	310,8
Just Eat Takeaway.com NV	Hotels, Restaurants & Leisure	3 265,6	5 561,0	137,4%	-226,0	34,0%	-4,1%	-5 302,0
Deliveroo PLC	Hotels, Restaurants & Leisure	2 689,2	2 232,1	34,7%	-121,1	-28,9%	-5,4%	-295,1
ABOUT YOU Holding SE	Specialty Retail	758,0	1 904,6	36,8%	-151,5	29,2%	-8,0%	-208,4
RVRC Holding AB	Specialty Retail	558,5	132,7	53,1%	27,9	50,8%	21,0%	13,4
ASOS PLC	Specialty Retail	548,8	4 147,5	4,3%	-70,2	-161,3%	-1,7%	-254,5
Boohoo Group PLC	Specialty Retail	546,9	2 010,2	11,9%	35,6	-36,2%	1,8%	-111,6
Farfetch Ltd	Specialty Retail	403,0	2 164,7	33,5%	-321,0	6,8%	-14,8%	473,5
MYT Netherlands Parent BV	Specialty Retail	279,3	768,6	19,6%	6,5	-39,1%	0,8%	-26,2
Apranga APB	Specialty Retail	146,2	242,9	5,8%	37,8	6,9%	15,6%	2,6
Wittchen SA	Specialty Retail	121,7	86,6	9,0%	24,1	16,9%	27,8%	5,0
Global Fashion Group SA	Specialty Retail	53,4	1 102,1	-6,4%	-22,9	-15,6%	-2,1%	-164,7
Superdry PLC	Specialty Retail	48,5	710,2	-4,1%	19,1	-32,0%	2,7%	-122,0
Mothercare PLC	Specialty Retail	39,4	83,1	-23,3%	7,6	0,6%	9,2%	-2,2
Platform Group AG	Specialty Retail	39,4	164,7	31,1%	-1,3	-158,2%	-0,8%	-2,1

7.6 Appendix 5: Income Statement

€ m	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
GMV	10 696	14 333	14 793	14 725	14 939	15 922	18 579	21 680	25 299	27 722	29 263	30 006
<i>Growth YoY</i>		34%	3%	0%	1%	7%	17%	17%	17%	10%	6%	3%
Sales	7 982	10 354	10 345	10 244	10 361	10 942	12 637	14 678	16 995	18 528	19 493	19 955
<i>Growth YoY</i>		30%	0%	-1%	1%	6%	15%	16%	16%	9%	5%	2%
Costs	-7 615	-9 929	-10 264	-10 060	-10 044	-10 530	-12 086	-13 950	-16 050	-17 386	-18 175	-18 486
COGS	-4 588	-6 028	-6 289	-6 254	-6 274	-6 593	-7 589	-8 786	-10 138	-11 016	-11 551	-11 784
<i>as %Sales</i>	-57,5%	-58,2%	-60,8%	-61,1%	-60,6%	-60,3%	-60,1%	-59,9%	-59,7%	-59,5%	-59,3%	-59,1%
Marketing	-661	-930	-795	-751	-749	-780	-888	-1 017	-1 161	-1 247	-1 292	-1 303
<i>as %Sales</i>	-8,3%	-9,0%	-7,7%	-7,3%	-7,2%	-7,1%	-7,0%	-6,9%	-6,8%	-6,7%	-6,6%	-6,5%
Fulfillment	-2 055	-2 599	-2 713	-2 513	-2 531	-2 662	-3 062	-3 542	-4 084	-4 433	-4 645	-4 735
<i>as %Sales</i>	-25,7%	-25,1%	-26,2%	-24,5%	-24,4%	-24,3%	-24,2%	-24,1%	-24,0%	-23,9%	-23,8%	-23,7%
Administrative	-319	-393	-480	-515	-500	-506	-560	-621	-685	-709	-707	-684
<i>as %Sales</i>	-4,0%	-3,8%	-4,6%	-5,0%	-4,8%	-4,6%	-4,4%	-4,2%	-4,0%	-3,8%	-3,6%	-3,4%
Other operating income	27	33	28	22	28	29	34	39	46	50	52	53
<i>as %Sales</i>	0,3%	0,3%	0,3%	0,2%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%
Other operating expenses	-19	-12	-15	-49	-17	-18	-21	-24	-28	-30	-32	-33
<i>as %Sales</i>	-0,2%	-0,1%	-0,1%	-0,5%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%
EBIT	367	425	81	184	317	412	551	729	946	1 142	1 318	1 469
<i>Ebit margin</i>	4,6%	4,1%	0,8%	1,8%	3,1%	3,8%	4,4%	5,0%	5,6%	6,2%	6,8%	7,4%
Interest and other financial income	-49	-70	-42	-57	-83	-88	-101	-117	-136	-148	-156	-160
<i>as %Sales</i>	-0,2%	-0,1%	-0,1%	-0,5%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%	-0,2%
Tax Charges	-92	-120	-22	-38	-73	-101	-140	-190	-252	-309	-362	-407
<i>Tax rate</i>	29,0%	33,8%	56,7%	30,3%	31,1%	31,1%	31,1%	31,1%	31,1%	31,1%	31,1%	31,1%
Net income	226	235	17	88	162	223	310	421	558	685	801	902
<i>Net profit margin</i>	2,8%	2,3%	0,2%	0,9%	1,6%	2,0%	2,5%	2,9%	3,3%	3,7%	4,1%	4,5%
Average number of shares	251	258	258	260	263	266	268	271	274	276	279	282
Average number of shares diluted	262	265	260	262	265	267	270	273	275	278	281	284

7.7 Appendix 6: Quarterly Income Statement

€ m	Q1 2022	Q2 2022	H1 2022	Q3 2022	Q4 2022	2022	Q1 2023	Q2 2023	H1 2023	Q3 2023	Q4 2023E	2023E
GMV	3 153	3 787	6 940	3 281	4 572	14 793	3 233	3 718	6 951	3 202	4 572	14 725
<i>Growth YoY</i>	0%	0%	0%	7%	5%	3%	3%	-2%	0%	-2%	0%	0%
Sales	2 205	2 623	4 828	2 349	3 168	10 345	2 256	2 556	4 812	2 275	3 157	10 244
<i>Growth YoY</i>	-1%	-4%	-3%	3%	2%	0%	2%	-3%	0%	-3%	0%	-1%
Costs	-2 273	-2 562	-4 835	-2 357	-3 072	-10 264	-2 282	-2 470	-4 751	-2 294	-3 015	-10 060
COGS	-1 352	-1 547	-2 899	-1 431	-1 960	-6 289	-1 401	-1 519	-2 920	-1 440	-1 894	-6 254
<i>as %Sales</i>	61,3%	59,0%	60,0%	60,9%	61,9%	60,8%	62,1%	59,4%	60,7%	63,3%	60,0%	61,1%
Marketing	-168	-209	-377	-168	-250	-795	-164	-175	-339	-159	-253	-751
<i>as %Sales</i>	7,6%	8,0%	7,8%	7,2%	7,9%	7,7%	7,3%	6,8%	7,0%	7,0%	8,0%	7,3%
Fulfillment	-651	-683	-1 334	-655	-724	-2 713	-595	-625	-1 219	-567	-726	-2 513
<i>as %Sales</i>	29,5%	26,0%	27,6%	27,9%	22,9%	26,2%	26,4%	24,4%	25,3%	24,9%	23,0%	24,5%
Administrative	-107	-126	-234	-108	-139	-480	-119	-123	-241	-128	-145	-515
<i>as %Sales</i>	4,9%	4,8%	4,8%	4,6%	4,4%	4,6%	5,3%	4,8%	5,0%	5,6%	4,6%	5,0%
Other operating income	7	4	12	7	10	28	5	8	13	2	6	22
<i>as %Sales</i>	-0,3%	-0,2%	-0,2%	-0,3%	-0,3%	-0,3%	-0,2%	-0,3%	-0,3%	-0,1%	-0,2%	-0,2%
Other operating expenses	-3	-2	-4	-2	-9	-15	-9	-36	-45	-1	-3	-49
<i>as %Sales</i>	0,1%	0,1%	0,1%	0,1%	0,3%	0,1%	0,4%	1,4%	0,9%	0,0%	0,1%	0,5%
EBIT	-68	61	-7	-8	96	81	-26	87	61	-19	142	184
<i>Ebit margin</i>	-3,1%	2,3%	-0,1%	-0,3%	3,0%	0,8%	-1,2%	3,4%	1,3%	-0,8%	4,5%	1,8%
Interest and other financial income	-21	-2	-24	-31	13	-42	-26	-3	-29	-3	-25	-57
<i>as %Sales</i>	1,0%	0,1%	0,5%	1,3%	-0,4%	0,4%	1,1%	0,1%	0,6%	0,8%	0,8%	0,6%
Tax Charges	28	-45	-17	3	-9	-22	13	-27	-13	14	-39	-38
<i>Tax rate</i>	31,5%	76,2%	-54,6%	8,7%	8,0%	56,7%	25,6%	32,1%	42,4%	62,3%	33,0%	30,3%
Net income	-61	14	-47	-36	99	17	-39	57	18	-8	78	88
<i>Net profit margin</i>	-2,8%	0,5%	-1,0%	-1,5%	3,1%	0,2%	-1,7%	2,2%	0,4%	-0,4%	2,5%	0,9%

