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Equity Valuation: Amazon

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BUSINESS
SCHOOL

Department of Finance

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Resumo

Este projeto visa determinar o valor justo das ações da Amazon no mercado dos EUA a 31 de dezembro de 2023.

A Amazon, uma empresa estabelecida de retalho e tecnologia, continua a manter o interesse do mercado devido às suas vastas áreas de negócio, que incluem comércio eletrónico, *cloud computing* e serviços de streaming digital. As suas operações diversificadas e estratégias inovadoras tornam-na um tema cativante para avaliação de ações. O objetivo principal é determinar se o mercado reflete adequadamente o valor fundamental da Amazon ou se há discrepâncias que criem oportunidades de investimento.

Este estudo avalia o desempenho financeiro da Amazon, a dinâmica do setor e as condições de mercado atuais, usando abordagens de avaliação como os modelos de Fluxo de Caixa Descontado (DCF) e Avaliação Relativa. As perspetivas dessas técnicas procuram proporcionar uma compreensão profunda do verdadeiro valor da Amazon no dinâmico mercado dos EUA. Todos os pressupostos usados nos modelos de avaliação são apoiados por dados históricos da empresa e perspetivas macroeconómicas e setoriais.

As principais conclusões indicam que o preço das ações da Amazon, avaliado em $189.88 pelo método DCF, está subvalorizado em aproximadamente 24.97% em comparação com o seu preço de mercado de $151.94 a 31 de dezembro de 2023. Esta subvalorização significativa sugere que o mercado pode não reconhecer totalmente o valor intrínseco da Amazon, apresentando potenciais oportunidades de investimento.

Em conclusão, esta avaliação mostra que as ações da Amazon estão significativamente subvalorizadas, destacando a sua forte posição de mercado e potencial de crescimento. Esta tese destaca a importância de os investidores considerarem avaliações intrínsecas e de mercado para decisões de investimento informadas.

Palavras-Chave: Amazon; Avaliação de Empresas; Metodologias de Avaliação; Fluxo de Caixa Descontado; Avaliação Relativa

Sistema de Classificação JEL: G30; G32

Abstract

This project aims to ascertain the fair value of Amazon's stock within the US market on December 31, 2023.

Amazon, an established retail and technology company, continues to maintain market interest due to its broad business areas, which include e-commerce, cloud computing, and digital streaming services. Its diverse operations and innovative strategies make it a compelling subject for equity valuation. The key goal is hereby to determine if the market adequately reflects Amazon's fundamental value or whether there are discrepancies that create investment opportunities.

This study assesses Amazon's financial performance, industry dynamics, and current market conditions using valuation approaches such as the Discounted Cash Flow (DCF), and Relative Valuation models. These techniques' insights attempt to provide an in-depth understanding of Amazon's real value within the dynamic US market landscape. All assumptions used in the valuation models are backed by the company historical data, and by the macroeconomic and industry outlook.

Key findings indicate that Amazon's share price, valued at $189.88 through the DCF method, is undervalued by approximately 24.97% compared to its market price of $151.94 on December 31, 2023. This significant undervaluation suggests that the market may not fully recognize Amazon's intrinsic value, presenting potential investment opportunities.

In conclusion, this comprehensive assessment reveals that Amazon's stock is significantly undervalued. The results emphasize Amazon's strong market position and substantial growth potential, suggesting that the stock presents an attractive investment opportunity. This thesis underscores the need for investors to consider both intrinsic and market-based valuations to make informed investment decisions.

Keywords: Amazon; Company Valuation; Valuation Methodologies; Discounted Cash Flow; Relative Valuation

JEL Classification System: G30; G32

General Index

Glossary

ACP – Average Collection Period

AHP – Average Holding Period

AI – Artificial intelligence

APP – Average Payment Period

APT – Arbitrage Pricing Theory

APV – Adjusted present value

AWS – Amazon Web Services

B2B – Business to business

B2C – Business to costumers

CAGR – Constant Annual Growth Rate

CapEx – Capital Expenditures

CAPM – Capital Asset Pricing Model

CCC - Cash Conversion Cycle

CF – Cash Flow

CRP – Country Risk Premium

D – Debt

D/E – Debt-to-Equity ratio

D&A – Depreciation and Amortization

DCF – Discounted Cash Flow

DDM – Dividend Discount Model

DTM – Domestic Transport Management

E – Equity

EBIT – Earnings Before Interest and Taxes

EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization

EPS – Earnings per share

EQV – Equity Value

EV – Enterprise Value

EVA – Economic Value Added

EV/EBITDA – Enterprise Value to EBITDA

FCFE – Free Cash Flow to Equity

FCFF – Free Cash Flow to the Firm

g – Growth Rate

GDP – Gross Domestic Product
GEO – Global Economic Outlook
GGM – Gordon growth model
IC – Invested Capital
IMF – International Monetary Fund
IPO – Initial public offering
IT – Information technology
M&A – Mergers and Acquisitions
ML – Machine learning
MSM – Multi-Stage Model
MV – Market Value
MVA – Market value added
r_d – Cost of Debt
r_e – Cost of Equity
NOA – Non-operating assets
NOCF – Net cash flows from operating activities
P/B – Price to Book value
PER - Price to Earnings ratios
pp – percentage points
PP&E – Property, plant, and equipment
PV – Present Value
PVGO - Present Value of Growing Opportunities
r – Discount Rate
r_f – Risk-free rate
ROA – Return on Assets
ROE – Return on Equity
ROIC – Return on Invested Capital
t – Corporate Tax Rate
TV – Terminal Value
VAT – Value Added Tax
WACC – Weighted Average Cost of Capital
WC – Working Capital
YTM - Yield to maturity
YoY – Year over Year

Introduction

This thesis aims to determine the fair value of Amazon's stock in the US market as of December 31, 2023. According to (Damodaran, 2002), valuation is the foundation of corporate finance, creating the essential connection between financial decisions, corporate strategy, and a company's enterprise value. This integration's purpose is to maximize a company's total value by connecting its financial decisions with its strategy.

It plays a pivotal role in guiding firms through acquisitions by accurately determining target firm values and is instrumental in investment decision-making, acknowledging market inefficiencies in asset pricing.

There are three primary valuation approaches, according to Damodaran (2012). The first one, intrinsic valuation, goes deeper into an asset's underlying qualities, estimating its future cash flow generation potential along with associated risks by using the discounted cash flow model. The second approach, relative valuation, compares the market value of an asset to similar assets, using indicators such as earnings, cash flow, or book value to estimate pricing. Lastly, valuation of contingent claims uses an option pricing model to value assets with option-like characteristics or uncertain future outcomes. Furthermore, within this literature review, a fourth valuation method will be explored, namely the Economic Value-Added Model.

According to Fernández (2002), the DCF method is often used because it is a conceptually correct valuation method. To undertake an appropriate business valuation analysis, Benninga and Sarig (1997) and several other scholars believe that using more than one valuation approach is desirable. The valuation methods used in this project are the DCF and Relative valuation.

The report comprises six chapters. Firstly, it discusses various valuation methods in the Literature Review. The second chapter analyses Amazon's external environment, covering industry dynamics, macroeconomics, and competitors. Chapter three outlines Amazon's business units and strategy. Chapter four focuses on key value drivers such as revenues, costs, working capital, and Capex, crucial for accurate valuation. Chapter five presents a financial analysis and final chapter delves into an in-depth valuation of the company using the Discounted Cash Flow (FCFF) and Relative Valuation methods.

To conclude, we present the key results and advise investors on whether to sell, hold, or buy Amazon shares. Despite differences in results between the DCF and Relative valuation approaches, the suggestion for December 2023 is to buy Amazon stock.

1 Literature Review

This chapter conducts a thorough literature analysis, focusing on the theoretical foundations required for assessing Amazon's valuation. The chapter will cover key ideas, models, and concepts that support the valuation methodologies and strategies used in this analysis. By exploring these theoretical perspectives, a strong framework is formed for understanding and assessing the numerous elements of Amazon's valuation, providing significant insights into the financial, strategic, and operational factors that influence its position in the tech industry.

1.1 Introduction to Valuation

Corporate finance valuation techniques are extremely important in a variety of financial domains. These techniques serve the unique requirements and goals of every area and are essential to the process of making decisions. Damodaran (2012) contends that valuation is the foundation of corporate finance, forming the crucial link between financial decisions, corporate strategy, and the enterprise value of a company. The goal of this integration is to maximize a company's total value by aligning its financial decisions with its strategy.

A fundamental domain in which valuation plays a noteworthy role is in the context of acquisitions. As both bidding corporations and target organizations depend on valuation to ascertain the right value for the target firm prior to accepting or rejecting an offer, Damodaran (2012) highlights its crucial function. Furthermore, valuation techniques like equity valuation are important because they help investors determine the intrinsic value of a company's stock and make wise investment choices.

In investment decision-making, the utilization of valuation models hinges on the belief that markets exhibit inefficiencies in assessing asset values and in anticipating the timing and method of correcting these inefficiencies. According to Damodaran (2012), within an efficient market, the prevailing market price serves as the most accurate estimation of an asset`s value. Therefore, the role of any valuation model lies in rationalizing or validating this established value.

According to Damodaran (2012) there are three main valuation methods. First, the Intrinsic Valuation, which delves deeper into the inherent characteristics of an asset, assessing its future cash flow generation potential and associated risks. Is computed with a discounted cash flow valuation, with the value of an asset being the present value of expected future cashflows on that asset. Second, the Relative Valuation compares the value of an asset to similar assets in the market, leveraging metrics such as earnings, cash flow, or book value to determine price. The

third method, Valuation of contingent claims, uses an option pricing model to value assets with option-like characteristics or uncertain future outcomes. Furthermore, within this literature review, a fourth valuation method will be explored, namely the Economic Value-Added Model (EVA).

According to Fernández (2002), the DCF method is often used because it is a conceptually correct valuation method. In this approach, the business is considered the generator of cash flows, and the present value of the discounted cash flows is calculated using the appropriate discount rate.

To undertake an appropriate business valuation analysis, Benninga and Sarig (1997) and several other scholars believe that using more than one valuation approach is desirable. The valuation methods used in this project will primarily be the DCF and Relative valuation.

1.2 Valuation Methods

1.2.1 Discounted Cash Flow Approach

The DCF method extends the principles of capital budgeting from individual investments to the broader scope of evaluating entire companies. It estimates a company's value by discounting future cash flows to their present value, utilizing an applicable discount rate or factor Modigliani and Miller (1958).

According to Damodaran (2015), DCF valuation is based on the present value rule. Using this approach, the present value of the projected future cash flows connected to an asset is calculated to assign a value to it as synthesized in the following formula:

$$Value\ of\ an\ asset = \sum_{t=1}^{n} \frac{Cash\ flow_t}{(1+r)^t} + \frac{Terminal\ value_n}{(1+r)^n} \quad (1)$$

where:

1. n: last year of the specified forecast period
2. $Cash\ flow\ t$: Cash Flow in period t
3. t: Current period
4. r: Discount rate
5. Terminal value: Present value of all future cash flow beyond the specified forecast period.

According to the formula presented above, three key variables need to be calculated in this method: terminal value, discount rate, and the future Cash flows.

The DCF method includes two primary versions based on discounted cash flows: free cash flow to the firm (FCFF) and free cash flow to equity (FCFE). When valuing a company, the variables mentioned above consider various factors such as debt and equity components.

1.2.1.1 Terminal Value

In the DCF analysis, the terminal value is the Present value of all future cash flows that occur beyond the specified forecast period. This stage is crucial to assessing the value of a business since it makes a substantial contribution to the total expected future cash flows of the enterprise.

As per Mota et al. (2012), the specified forecast period is a time frame that an equity analyst can realistically use to anticipate a company's cash flows with greater precision and accuracy. It usually takes three to five years for the company's cash flows to stabilize. Consequently, the value of future cash flows beyond this specific projected period is captured by the Terminal value.

According to Damodaran (2012), there are a few methods used to estimate the Terminal value: the multiples approach, the liquidation value, and the stable growth model which is the most used. This model implies that a company's Cash flows will always rise at the same rate. It is important to remember, nevertheless, that the perpetual growth rate ought to ideally match or be less than the Nominal growth rate of the economy in which the business is located. This is consistent with the knowledge that no company can continuously outperform the rate of economic growth.

Placed together, the Terminal value is the discounted value of the perpetuity, starting with the cash flow of n + 1 and growing at a constant rate (Perpetual growth rate).

$$Terminal\ Value_n = \frac{Cash\ Flow_{n+1}}{(Discount\ Rate - Perpetugal\ growth\ rate)} \quad (2)$$

1.2.1.2 Discount Rate

The discount rate, as highlighted in the DCF theory by Damodaran (2012), is instrumental in evaluating a company's future cash flows, aligning with the inherent risk of its business. A higher risk profile correlates with a higher discount rate, emphasizing the sensitivity to risk.

In the assessment of intrinsic value, various methods calculate a company's cost of capital, with the Weighted Average Cost of Capital (WACC) being the most commonly used (Pinto et al., 2010).

WACC represents the minimum return required by investors for investing in the firm's projects and is computed as a weighted average of the cost of equity and the after-tax cost of debt, factoring in their proportions within the firm's capital structure (Fernandéz, 2011).

The WACC brings together the required returns for both debt and equity holders and aligns the Discount rate with the risk profile of the investment (Koller, 2020).

$$WACC = \frac{MV(Equity)}{MV(Equity)+MV(Debt)} \times r_e + \frac{MV(Debt)}{MV(Equity)+MV(Debt)} \times r_d \times (1 - tax\ rate) \quad (3)$$

where:

1. MV (Equity): Market value of equity
2. MV (Debt): Market value of debt
3. r_e: cost of equity
4. r_d: cost of debt.

According to Modigliani and Miller's (1958) Proposition II (without taxes), when a firm increases its reliance on debt, its cost of equity increases. This is because equity holders demand a higher return due to the increased financial risk associated with higher leverage. Modigliani and Miller's original Proposition I (1958) states that in a no-tax environment, the total value of a firm is unaffected by its capital structure. The concept of the tax shield, introduced in Proposition I (with taxes), implies that the interest expense on debt reduces taxable income and thus increases the value of the firm.

Although models based on WACC are characterized by simplicity in their application, they are accompanied by significant limitations. These models function optimally within straightforward and static capital structures. However, in the event of a substantial increase in a company's debt-to-equity ratio, there exists a potential for underestimation of the current cost of capital, possibly neglecting anticipated tax advantages. In instances involving complex and evolving capital structures entailing elements like tax shelters, issue costs, subsidies, or diverse debt securities, adjustments become imperative. In such scenarios, the adjusted present value (APV) model, as suggested by Luehrman (1997), often emerges as a more feasible alternative.

When computing the Market Value of Debt (MV (Debt)), it encompasses the company's interest-related obligations alongside non-operational liabilities, covering short-term debt like commercial paper and notes payable, as well as long-term debt like fixed debt, floating, and convertible debt with maturities exceeding a year, as articulated by Koller et al. (2020). However, elements related to working capital, such as accounts payable and other credit accounts, should not be included in the calculations for MV (Debt).

Conversely, determining the Market Value of Equity (MV (Equity)) commonly involves computing the firm's market capitalization during the valuation period. This number is calculated by multiplying the number of outstanding shares by the share price.

The DCF valuation methodology calculates a company's intrinsic value by projecting future free cash flows, using the appropriate WACC to determine their present value, while considering the market values of both debt and equity.

1.2.1.2.1 Cost of debt

The cost of debt (rd) represents the interest rate a company must pay on the current debt it holds, which reflects the company's risk of default.

The calculation depends on whether the debt security is publicly traded. For listed bonds, it is based on the yield to maturity (YTM), while for non-traded bonds, the standard spread is added to the risk-free rate. (Damodaran, 2002).

The WACC equation uses the after-tax cost of debt to capture the tax effects of borrowing as follows:

$$After\ tax\ cost\ of\ debt = Pre\ tax\ cost\ of\ debt\ \times\ (1 - Tax\ Rate) \qquad (4)$$

Interest payments and the tax effects of debt arising from a company's contractual debt are included in the after-tax cost of debt. As tax rates increase, the tax benefits (or shields or protections) derived from interest payments also increase (Damodaran, 2002).

1.2.1.2.2 Cost of equity

The required rate of return on equity investments in a company is measured by the cost of equity, which is a significant component of the WACC. According to Damodaran (2002), the Capital Asset Pricing Model (CAPM) is frequently used to calculate the cost of equity.

The Arbitrage Pricing Theory (APT), the Fama and French three-factor model, and the CAPM, which is highlighted as the more appropriate model to utilize, are the three approaches to estimate the cost of equity for the WACC in a valuation exercise (Koller et al., 2020).

CAPM has proven to be a popular model for assessing risk and return over time. Its basis is the idea that an investor's expected return on a stock investment depends on both the risk-free return and the stock's responsiveness to market fluctuations measured by the beta (systematic risk). Sharpe (1964) first introduced CAPM, and its development continued with improvements by Lintner (1965) and Mossin (1966). This model has become the standard method for valuing assets with inherent risk.

The model comprises the shareholder's required return (r_e) in three main parameters: the risk-free rate (r_f), the market risk premium (MRP), and the firm-specific beta as follows (β):

$$CAPM: r_e = r_f + \beta\left(r_M - r_f\right) \quad (5)$$

1.2.1.2.3 Risk free rate (rf)

The risk-free asset is pivotal in finance, serving as a benchmark for evaluating returns in investments. It must exhibit two crucial characteristics: no default risk and no reinvestment risk, ensuring promised profits and consistent reinvestment at the same risk-free rate (Damodaran, 2008).

The expected return on this asset is represented by the risk-free rate (r_f), which is frequently employed in financial models. It is typically obtained from bonds issued by the government and represents a secure, default-free rate for developed economies. The optimal proxy often involves 10- or 15-year government bonds in the company's country, matching the currency and ideally the investor's investment horizon (Frykman & Tolleryd, 2003).

Aligning Cash flows' timing with the risk-free asset's zero-coupon rate is crucial for an accurate risk-free rate determination to assure it reflects the project's Cash flows timing.

In more risky countries, additional premiums may be included to reflect the higher risks involved, which are determined based on default spreads on country bonds issued by those countries.

1.2.1.2.4 Market Risk Premium $\left(r_M - r_f\right)$

The equity risk premium represents the incremental return investors anticipate earning by investing in stocks, compensating for the higher risk involved in stock market investments (Damodaran, 2002). It reflects the premium demanded by investors for bearing the risk of the market portfolio over a risk-free asset.

This premium, added to the risk-free rate, influences the expected return on an investment. Estimating it involves various methods, such as historical data analysis, as suggested by Damodaran (2012). This historical risk premium, computed from stock returns against default-free assets over time, serves as a credible estimate, particularly in mature markets like the US and Europe.

However, determining the equity risk premium remains uncertain, lacking a universally accepted approach. Damodaran (2009) outlines three primary methods:

1. Conduct surveys with select groups of managers and investors to learn more about their predictions regarding future equity returns.
2. Use the historical premium as the expectation and evaluate prior equity returns in comparison to risk-free assets.
3. Estimate a forward-looking premium based on the market rates or prices on traded assets today and categorize these as implied premiums.

1.2.1.2.5 The beta (β)

Beta measures an investment's systematic risk in relation to the market, showcasing how responsive its returns are to market fluctuations. For positive betas, a higher beta suggests greater vulnerability to market fluctuations, indicating higher volatility in the investment's price. Conversely, a lower beta signifies reduced sensitivity to market changes, implying a more stable performance amid fluctuations Damodaran (2012).

According to Mota et al. (2012), determining the necessary rate of return for investors involves utilizing a proxy or benchmark based on the firm's beta. There exist two primary options:

1. Selecting a comparable company, though this is less common due to the challenge of finding an exceedingly similar company.
2. Utilizing an industry average or a chosen peer average, which is a more prevalent approach.

Once the appropriate benchmark is identified, the relationships between various Betas (such as unlevered, levered, and debt) are employed as outlined below:

$$\beta_L = \beta_U + (\beta_U - \beta_D) \times \frac{D}{E} \times (1 - t) \quad (6)$$

where:

1. β_L = Levered beta
2. β_U = Unlevered beta
3. β_D = Debt Beta
4. $\frac{D}{E}$ = Debt-to-Equity ratio
5. t = Tax rate.

The debt Beta (β_D) can be computed using the cost of debt (r) with the CAPM, as follows:

$$r_d = r_f + \beta_D \times (r_M - r_f) \quad (7)$$

And thus:

$$\beta_D = \frac{(r_d - r_f)}{(r_M - r_f)} \tag{8}$$

Having the β_L, D/E ratio, and the tax rate of the benchmark, the computation of the benchmark's theoretical β_U stands as the preliminary step in this process. Damodaran (2012) argues that if all business risk is borne by the stockholders and debt has a tax benefit to the firm, one should assume that the firm's debt has a zero beta ($\beta D = 0$), which leads to:

$$\beta_U = \frac{\beta_L}{1 + \frac{D}{E} \times (1 - t)} \tag{9}$$

Utilizing this β_U as a foundation, we calculate the firm's β_L, considering the specified target D/E, along with the firm's cost of debt and tax rate (Koller et al., 2020). In practical application, we adjust the benchmark's β_U to align with the firm's capital structure through a process known as re-leveraging.

$$\beta_L = \beta_U \times \left(1 + \frac{D}{E} \times (1 - t)\right) \tag{10}$$

Once more employing the CAPM alongside the calculated β_L, it is possible to ascertain the required rate of return for investors (r_e).

After analyzing various discount rates, their components and how they are computed, the next section will extensively explore each valuation model to determine the most suitable rates for assessing intrinsic value in different scenarios. This comprehensive analysis attempts to provide insight on which rates are most appropriate for specific valuation models.

1.2.1.3 The future Cash flows

There are multiple possible sources of expected cash flows in the DCF approach, depending on the nature of the Cash flows, which leads to the formation of several modifications of the DCF valuation model. The Dividend discount model (DDM), Free cash flow to firm valuation (FCFF), Free cash flow to equity valuation (FCFE), and the Adjusted present value (APV) model are the most essential. These models will be assessed in the sections that follows.

1.2.1.3.1 Dividend Discount Model

The DDM stands as the oldest valuation technique within the DCF theory. Described as the "most conservative way of valuing a stock," it solely accounts for Cash flows distributed to stockholders rather than speculative future earnings (Damodaran, 2015:520).

From a shareholder's perspective, investing in the stock market offers two income sources. Firstly, there is the potential gain or loss stemming from the difference between the market price and the purchase price upon selling shares. Secondly, there is the possibility of receiving dividends while maintaining ownership.

This valuation model emphasizes realized payouts rather than relying on uncertain future projections. Various iterations of the DDM have emerged, each rooted in distinctive dividend growth projections. Among these versions are the Gordon growth model (GGM), recognized for its straightforward approach, and the Multi-Stage Model (MSM), an evolution of the former. Originating from Gordon and Shapiro (1956), the GGM aimed to evaluate companies existing in a steady state, assuming a perpetual and consistent dividend growth rate (g). Consequently, the stock's value can be delineated in the following manner.

$$Share\ price = \frac{D_1}{r_e - g} \tag{11}$$

where:

1. D_1: expected Dividend per share in the next period
2. r_e: cost of equity
3. g: perpetual dividend growth rate.

While certain instances may align with this perspective, empirical evidence contradicts the notion of perpetual, unvarying dividend growth (Fuller, 1979). To enhance the model's fidelity, the application of the MSM becomes imperative. This variant encompasses both the two-stage and three-stage models, enabling analysts to integrate diverse phases of dividend growth projections across a company's lifecycle. For instance, the three-stage model delineates an initial phase characterized by robust, stabilized growth, followed by a linear decline in growth rate until it converges into a sustained, stable growth phase for the long term (Molodovsky et al., 1965).

In dividend-based models, the initial dividend and the perpetual growth rate hold critical importance (Mota et al., 2012). These models capitalize on consistent cash inflows that are regularly produced from the company to the shareholders, offering insights into the value attributed to future growth opportunities, known as PVGO (Present Value of Growing Opportunities).

However, the method's reliance on a company's dividend policy introduces uncertainty and overlooks vital factors like the impact of non-core assets on valuation. The selection of the discount rate, often derived from the CAPM and based on the company's leveraged beta, assumes a stable capital structure, necessitating adjustments if such structures change.

Nonetheless, because of DDM´s simplicity and its intuitive logic, this approach is often used as a complement to other valuation models.

1.2.1.3.1.1 Present Value of Growth Opportunities

The constant growth model offers an estimation of the share price attributed to future growth opportunities through PVGO analysis. This involves comparing the current share price (P_0) with the price that would be generated without growth, calculated as follows:

$$PVGO = P_0 - \frac{EPS_1}{r} \tag{12}$$

Where P_0 is the current market price of the share and EPS_1 is the earnings per share in period 1.

EPS_1, rather than dividend per share, is used assuming a zero-growth scenario where all earnings are distributed to shareholders.

The PVGO can be negative, indicating investor skepticism regarding the company's growth potential and investment strategy. A negative PVGO suggests that investors believe the company could create more value by increasing dividends rather than retaining earnings for future growth investments (Mota et al., 2012).

1.2.1.3.2 Discounted Cash Flow Method – Free Cash Flows to the Firm (FCFF)

The FCFF, often referred to as the DCF-WACC method, denotes the cash available to a company's capital providers (both stockholders and debtholders) after covering all operational expenses and necessary reinvestments. These cash flows include all operating flows and exclude all financing flows (such as interests and capital reimbursements) and investing flows beyond capex that is critical and needed for daily operations (such as proceeds from sale of unrelated assets or proceeds for the acquisition of unrelated companies.

Modigliani's (1958) and Damodaran (2012) outline the computation of FCFF as follows:

$$FCFF = EBIT\ (1 - Tax\ Rate) + DA - CAPEX - \Delta Working\ Capital \tag{13}$$

1.2.1.3.2.1 Working Capital

The concept of working capital, evident in a company's balance sheet through items like accounts receivable, payable, and inventories, often displays a duality when viewed from accounting versus financial standpoints. While accounting positions these items as short-term assets and liabilities, they persist in the balance sheet continually when observed financially.

For instance, accounts receivable reflects ongoing credit provided to customers, symbolizing the payment duration typically extended to them, often spanning a few months (Mota et al., 2012).

From a financial lens, these items remain on the balance sheet as a constant presence due to the cyclical nature of business operations involving purchases, storage, and sales. In this context, these items appear as a permanent fixture in the balance sheet. Consequently, companies necessitate continual financing to support these current assets tied to their operations, while simultaneously leveraging resources generated by the business, notably the credit extended by suppliers (Mota et al., 2012).

The DCF-WACC method is structured around a two-step valuation process. Initially, it focuses on determining the Enterprise Value (EV), reflecting the current total worth of the business. It is the present value of all the Future cash flows generated by the company, in an infinite time horizon assuming the continuity of the company.

This value is obtained by discounting both the explicit forecast period's Free cash flows and the Terminal value using the WACC. This computation yields the EV, marking the starting point for assessing the Equity Value (EQV) Mota et al. (2012).

$$Enterprise\ Value = \sum_{t=1}^{n} \frac{FCFF_n}{(1+WACC)^n} + \frac{Terminal\ value}{(1+WACC)^n} \quad (14)$$

where:

1. $FCFF$t: The free cash flow to the firm in period t
2. WACC: The weighted average cost of capital representing the average rate of return demanded by all stakeholders (both debt and equity holders)
3. Terminal value: The present value of all future expected FCFF that occur beyond the specified forecast period
4. n: last year of the specified forecast period

The subsequent step involves refining the enterprise value to derive the EQV. This adjustment includes adding the value of Non-operating assets (NOA) while subtracting the company's Debt, thus culminating in the determination of the EQV, as follows:

$$EQV = Enterprise\ Value + Non\ operating\ assets - Debt\ and\ Debt\ equivalents \quad (15)$$

1.2.1.3.2.2 Non-operating assets

The concept of non-operating assets encompasses various asset types, whether current or non-current, owned by the company but not integral to its operations. These assets, such as cash,

investments in other companies, and other non-core assets, do not impact the company's future performance, as reflected in its enterprise value (Mota et al., 2012).

Their valuation should consider the market value net of taxes, and should be calculated as follows:

- If the market value exceeds the accounting value, the calculation involves the market value minus the capital gain, multiplied by the tax rate.
- If the market value is lower than the accounting value, it includes the market value plus the capital loss, multiplied by the tax rate, with the capital loss generating tax savings in this scenario.

NOA are included in the equity value, whereas non-equity claims are deducted.

Non-equity claims include financial debt, operating leases, provisions, convertible bonds, minority interests, and other liabilities.

1.2.1.3.2.3 Debt and Debt equivalents

Debt encompasses all company liabilities except those integrated into the working capital. Ideally, debt valuation should be based on market values, although accounting values, increasingly converging with market values, are predominantly utilized in practice (Mota et al., 2012). Typically, debt consists of financial liabilities (interest-bearing) and other non-operational obligations not involved in funding operations or working capital. These may include obligations to other creditors, legal claims, and provisions.

Therefore, EQV represents the business worth along with potential proceeds from selling non-essential assets, minus the company's obligations to creditors.

1.2.1.3.3 DCF Method – Free Cash Flows to Equity (FCFE) or Flow to Equity (FTE)

FCFE relies on Cash flows exclusively accessible to shareholders, representing all the cash flows remaining after clearing operating expenses, loan interests, and principal loan repayments, and considering changes in working capital alongside net CAPEX disposals, as follows:

$$FCFE = Net\ income + DA - CAPEX - \Delta WC + \Delta Debt \quad (16)$$

The valuation of FCFE often involves discounting at the cost of equity, offering insight into the present value of these Cash flows from an equity investor's perspective. This approach assists in appraising the company's stock value by considering the anticipated cash returns for its shareholders. In this context, utilizing cash flows specific to shareholders necessitates

employing a cost of equity that accurately reflects the company's capital structure. For instance, using the CAPM may involve computing the required rate of return based on the company's leveraged beta, ensuring alignment with its financial framework.

While in the FCFF we use a two-staged approach to value (first EV is computed and then the EQV), in this case, as all the cash flows that remain for the shareholders are being discounted at the cost of equity, we obtain the EQV immediately as follows:

$$EQV = \sum_{t=1}^{n} \frac{FCFE_n}{(1+r_e)^n} + \frac{Terminal\ value}{(1+r_e)^n} \tag{17}$$

where:

1. r_e cost of equity
2. $FCFE_n$: The Free Cash Flow to Equity in n.
3. Terminal Value: present value of all FCFE that occur beyond the specified forecast period
4. n: last year of the specified forecast period.

All comments from the previous section about the calculation of FCFF still apply here.

If employing NOA in EQV in the same way, it was done with the FCFF it is vital to ensure that every revenue and/or cost associated with those NOA it is eliminated from the computation of the net income used as an element of the FCFE.

1.2.1.3.4 Adjusted Present Value model

Myers (1974) introduced the APV model, redefining how firms with debt are valued. Myers proposed that the worth of a leveraged firm equals the value of an unleveraged firm plus the present value of tax savings derived from interest payments, as it follows:

$$Firm\ Value = Value\ of\ Unlevered\ Firm + PV\ of\ Interest\ Tax\ Shields - PV\ of\ Expected\ Bankrupcy\ Costs \tag{18}$$

Essentially, once debt becomes part of the company, analysts evaluate the net impact on its value, carefully weighing the benefits and drawbacks of borrowing (Damodaran, 2012).

This methodology hinges on the principle of value additivity, empowering equity analysts to split the company's value into distinct segments and analyze where the value is generated (Luehrman, 1997b). It encompasses two primary components: the value of an unleveraged firm and the value derived from interest tax savings due to debt financing while accounting for anticipated bankruptcy costs.

Despite its advantages over the DCF-WACC method, the APV model faces a notable weakness associated with estimating bankruptcy costs, leading some researchers to discredit its reliability (Damodaran, 2005). Consequently, many scholars still hold the view that the DCF-WACC method remains the most dependable valuation approach due to its broader acceptance and handling of potential risks.

1.2.1.4 Economic Value-Added Model - EVA

The EVA method centers on the concept of driving value within a company. According to Mota et al. (2012), in this methodology, the equity value is determined as the sum of the shareholders' invested capital in the company, represented by the book value of equity, the present value of the EVA that the company will create perpetually, designated as the Market value added (MVA), as it follows:

$$EQV = Equity\ Book\ Value + MVA - NOA \tag{19}$$

1.2.1.4.1 Market Value Added

The MVA in the context of a listed firm's market capitalization represents the difference between the market capitalization value and the equity book value, as it follows:

$$MVA = \sum_{t=1}^{\infty} \frac{EVA_t}{(1 + WACC)^t} \tag{20}$$

where EVA is computed as follows:

$$EVA_t = NOPLAT_t - WACC \times Invested\ capital_t \tag{21}$$

or

$$EVA_t = (ROIC - WACC) \times Invested\ capital_t \tag{22}$$

Where the company is creating value whenever the ROICC exceeds the WACC.

One significant drawback of this approach lies in its reliance on an economic metric (NOPLAT) rather than a Cash flow-based measure, as seen in methods like FCFF and FCFE. By depending on an economic measure, this method becomes susceptible to the discretionary nature and subjectivity of accounting regulations impacting elements utilized in calculating the economic result, such as depreciation, provisions, and similar items (Koller, 2020).

1.2.2 Relative Valuation - Multiples

According to Damodaran (2012), relative valuation involves estimating the value of an asset by observing how the market prices assets that are considered "similar" or "comparable." This

method is founded on the notion that determining the intrinsic value of an asset is exceedingly difficult, if not impossible. Instead, an asset's value is deemed to be what the market is willing to pay for it, based on its specific characteristics.

To conduct a relative valuation, several key components are necessary. These include either an identical asset or a group of comparable assets, a standardized measure of value (such as dividing price by common variables like earnings or book value), and, if the assets are not perfectly comparable, one should identify suitable comparison firms and address any variations present among them. It is crucial to select comparable entities resembling the firm being evaluated and adjust to accommodate differences in size, risk, or other pertinent criteria (Damoradan, 2012).

The following are three regularly used multiples for valuation:

1. Price to Earnings Ratio (PER) evaluates the present share price against earnings per share. It showcases the price investors are willing to pay per unit of current earnings, reflecting market expectations.

$$Price\ to\ earning\ ratio\ (PER) = \frac{Share\ price_N}{EPS_N} = \frac{Market\ capitalization_N}{Total\ net\ income_N} \quad (23)$$

2. The Enterprise Value-to-EBITDA Ratio contrasts the enterprise value (inclusive of market values of equity and debt) against (EBITDA). This ratio serves to evaluate a company's value relative to its annual EBITDA.

$$Enterprise\ Value - to - EBITDA\ Ratio = \frac{EV_N}{EBITDA_N} \quad (24)$$

The widespread use of these two multiples speaks to their complementarity. Specifically, the limitations inherent in PER are addressed by the $\left(\frac{EV}{EBITDA}\right)$ multiple. While PER connects a firm's share price to its earnings per share, its reliance on earnings and susceptibility to distortion by the company's capital structure, along with non-operating gains and losses, are noted drawbacks (Koller et al., 2020). Conversely, the $\left(\frac{EV}{EBITDA}\right)$ multiple demonstrates less susceptibility to changes in capital structure, remains unaffected by varying tax rules, and relies on the company's operational cash flow.

3. The Price-to-Book Value Ratio measures a company's market value against its book value, signifying the value investors are willing to allocate for each unit of net assets.

$$Price - to - Book\ Value\ Ratio = \frac{Share\ price_N}{Book\ value\ per\ share_N} \quad (25)$$

Relative valuation offers advantages by more accurately mirroring market sentiments compared to discounted cash flow valuation, proving valuable during scenarios requiring

immediate alignment with market perceptions like Initial public offerings (IPOs), Mergers and Acquisitions (M&A), or momentum-based strategies. It caters to portfolio managers' needs, is commonly evaluated relative to market performance, and demands less explicit data than discounted cash flow methods (Damodaran, 2012). However, Damodaran (2012) highlights drawbacks: even with accurate analysis, a portfolio of seemingly undervalued stocks on a relative basis might still be overvalued overall.

This approach assumes market accuracy in the aggregate but allows for errors in individual securities. Additionally, despite needing less explicit information, it relies on implicit assumptions which, if incorrect, can lead to inaccuracies in the valuation process.

1.2.3 Contingent Claim Analysis

The Contingent Claim Valuation assesses assets resembling options, reliant on specific conditions tied to an underlying asset's value and fixed timelines. This method is beneficial for valuing intricate assets like distressed firm equity or nascent biotech stocks, unveiling unique value dynamics by potentially increasing asset worth with higher risk (Damoradan, 2012).

Despite its advantages, challenges persist, particularly in valuing real options (e.g., natural resources or patents) due to limited input data, especially for projects lacking active trading. Option valuation relies on underlying asset assessment, serving as a complementary method, not a standalone.

However, a notable concern is the risk of double counting assets, where analysts must avoid overvaluing assets by incorporating their traits twice, as seen in valuing patents both as options and in discounted cash flow models.

Overall, the Contingent Claim Valuation proves useful for asset sharing option features, but its complex applicability requires supplementation with other valuation methods, as stated by Luehrman (1997a).

2 External Environment

In this chapter, the primary focus will be on understanding the external environment that influences Amazon's valuation. Key areas of focus include macroeconomic issues such as inflation and GDP (Gross domestic growth) growth in the United States, as well as societal, technical, environmental, and regulatory concerns. Furthermore, the industry overview will address the framework, developing trends, and growth patterns of the e-commerce and technology sectors.

Finally, the competitive environment will be analysed by identifying important competitors and market forces that influence Amazon's competitive positioning. This comprehensive research gives critical insights for an accurate equity assessment of Amazon.

2.1 Macroeconomic Overview

Global economic expansion remained in 2023, driven by a recovery in Chinese consumer spending and an acceleration in US economic activity. These factors compensated for a severe decline in Europe caused by the previous year's regional energy crisis. Nonetheless, the continued impact of recent monetary policy adjustments, ongoing challenges in China's real estate market, and the eurozone economy's persistent slowness all contribute to Fitch Ratings' forecast of a significant decline in global growth for 2024, estimated at 2.1% (Fitch Ratings, 2023). As the global economy confronts the economic impact of the pandemic, as well as the consequences of Russia's invasion of Ukraine in 2022, the future remains uncertain, although current predictions suggest that yearly growth will recover to a steady rate of around 3% in 2028, as illustrated in Figure A1.

A considerable slowdown in the US economy is expected, but a recession is not on the horizon. The resiliency of US economic development is due to current fiscal stimulus measures, consumers continuing to use extra savings, and the private sector's strong financial position. Thus far, the consequences of monetary tightening, largely through the 'cash flow' channel characterized by increasing debt-service costs, have been limited. However, growth is likely to decrease considerably in the coming year due to lower household income and profits, deteriorating credit and investment dynamics, and higher real interest rates. Despite these obstacles, a good growth trajectory is expected to continue until 2024 (Fitch Ratings, 2023).

In March 2024, Fitch Ratings raised its prediction for global GDP growth in 2024 by 0.3 percentage points to 2.4%, citing stronger near-term world development prospects. This revision is principally driven by a significant increase in the US prediction, which is now at

2.1% vs the previous estimate of 1.2% in the December 2023 GEO (Global Economic Outlook). Despite a slight reduction in the projection for China's 2024 growth to 4.5% from 4.6% and a minor adjustment to the eurozone forecast to 0.6% from 0.7%, the greater expectations for US growth outweigh these concerns. Additionally, growth forecasts for emerging markets excluding China have been revised upward by 0.1 percentage points to 3.2%, with increases noted for India, Russia, and Brazil. Looking ahead to 2025, Fitch Ratings expects a small increase in global growth to 2.5%, unchanged from the December GEO. This estimate is predicated on the expectation that the eurozone will recover, led by a rise in real wages and consumption, regardless of if US GDP decelerates (Fitch Ratings, 2024).

Despite the economic challenges caused by the coronavirus pandemic, the global inflation rate witnessed a decline to 3.25% during the pandemic's first year. However, in 2021, it increased to 4.7%. This escalation corresponded with the growing impact of supply chain disruptions on consumer prices, worsened by the Russia-Ukraine conflict. A confluence of factors, including escalating energy and food prices, fiscal instability stemming from the pandemic consequences, and consumer uncertainty, have triggered an economic downturn. As shown in Figure A2, which displays worldwide inflation patterns, the inflation rate for 2024 is expected to reach 5.9%.

In conclusion, the macroeconomic environment in 2023 showed resilience. Despite expectations of an economic downturn and high inflation in 2024, the global economy is predicted to stabilise, with GDP growth projected to be around 3% by 2028 and inflation rates decreasing. These economic factors are critical to Amazon's valuation because they influence customer spending, operating costs, and overall market stability.

2.2 Industry Overview

Amazon, a worldwide leader in commerce and technology, has a large presence in a variety of industries, making it an important player in the global economy. With its revenue sources divided into seven categories, each of which may include multiple industries, understanding Amazon's growth patterns and prospects for the future requires a thorough assessment of its diversified operations. This information is critical for determining the company's valuation because it illustrates the degree of Amazon's market dominance and revenue diversification efforts. The following industries represent some of Amazon's operational domains:

Retail E-commerce: Amazon's retail sector includes its online retail operations, grocery store services like Whole Foods and Amazon Fresh, and physical stores like Amazon Go and

Amazon Style. Amazon takes a regional approach to retail fulfillment, dividing its national logistics infrastructure into eight regional networks. These networks include fulfillment centers, intermediate sorting facilities, last-mile delivery hubs, and Amazon's transportation fleet.

The retail e-commerce industry is witnessing substantial development as global access to the internet increases, with over five billion users globally. Retail e-commerce sales are estimated to exceed $6.3 trillion by 2024, with further growth expected in the future Statista, 2024).

One important characteristic of the e-commerce business is the wide range of platforms available to consumers for exploring, comparing, and purchasing goods and services. While some platforms focus on B2B customers, there are other possibilities for private consumers as well. As of 2023, online marketplaces will dominate the internet retail sector, with Amazon leading the way as the global leader in website traffic.

Over the last decade, the United States e-commerce business has grown steadily, establishing itself as one of the world's largest. Retail e-commerce sales are predicted to grow rapidly in the following years, rising from around $925 billion in 2023 to more than $1.4 trillion by 2027. Amazon is the top e-retailer in the United States, with the largest market share and the highest e-commerce sales. Amazon significantly outperformed its US competitors in 2022, with retail e-commerce sales of over $130 billion. Other important competitors in the online shopping landscape include eBay, Walmart, Target, and Apple (Statista, 2023).

Cloud Computing (Amazon Web Services (AWS)): In the current digital landscape, cloud computing is a critical component of the IT sector. It consists of using networks of remote servers connected through the internet to store, manage, and process data. Cloud computing was expected to generate more than half a trillion dollars in revenue in 2023, showing very few signs of slowing down. This indicates that it is a solid and everlasting component of the IT industry that is consistently growing.

Cloud computing provides users with access to a wide range of technologies while lowering entry barriers, such as technical expertise and cost. This sector is often divided into three main service models: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS). Customers can choose between private, public, and hybrid cloud deployment strategies according to their business needs and security concerns (Vailshery, 2024).

The use of cloud computing in business is growing, driven by an increasing migration of operations online and the growing popularity of remote and hybrid work arrangements. Even sectors that have traditionally not been associated with technological education such as law

companies and financial services, are adopting cloud technology. Over 98% of organizations globally use the cloud in some capacity, resulting in a considerable increase in cloud infrastructure spending. The cloud market is projected to be worth $376.36 billion by 2029.

According to Imber (2024), a study conducted in 2022 found a significant growth in cloud use, with 63% of technical and business professionals primarily relying on cloud services, up from 59% in 2021 and 53% in 2020. This change is also shown by a decrease in 'light' cloud usage, which fell from 19% in 2020 to 14% in 2022, showing a broader integration of cloud-based services across organizations

End-user spending on public cloud services was expected to reach approximately $600 billion by 2023, with SaaS accounting for the highest portion ($208 billion), followed by IaaS at $156.2 billion and PaaS at $136.4 billion. Notably, operator and vendor revenues for core public cloud and infrastructure services climbed to $544 billion in 2022, a 21% increase over the previous year, with IaaS and PaaS contributing $195 billion of total income.

In 2023, the leading cloud services comprised AWS, Microsoft Azure, and Google Cloud Platform, with AWS commanding the largest market share globally and experiencing significant year-over-year growth. AWS has demonstrated remarkable expansion, growing by 34% annually over the last two years (Imber, 2024).

Food delivery and Grocery: The most established delivery markets globally, such as Australia, Canada, the United Kingdom, and the United States, experienced significant growth from 2018 to 2019, with the United States doubling its market size and Australia quadrupling it according to Ahuja et al. (2021). This growth trend persisted into 2020 and early 2021, resulting in these markets being four to seven times larger than their size in 2018.

Since the start of pandemic-induced lockdowns in March 2020, the food delivery industry has experienced remarkable growth, particularly in established markets. Before the pandemic, the US restaurant business had consistent yearly growth of 3 to 4 percent, with delivery sales increasing at double that rate, reaching 7 to 8 percent. The spike in delivery sales, fuelled primarily by millennials and Gen Zers who prefer the convenience of prepared meals to traditional supermarket shopping, has exceeded population growth.

This need for convenience has only grown stronger during the epidemic, particularly during the peak lockdown period from March to May 2020 in Europe and the United States. Despite the hurdles faced by the pandemic, the food delivery sector enjoyed a major spike during this time and has continued to develop into 2020 and 2021 (Ahuja et al., 2021).

According to Simmons et al. (2022), the COVID-19 pandemic has accelerated the expansion of grocery shopping, leading to a substantial shift in consumer behavior. Previously,

online grocery services primarily attracted young, urban, affluent families seeking convenience. However, the pandemic has increased the popularity of online food shopping among new customer categories and shopping missions. Click-and-collect models have also gained popularity, especially in the early stages of the pandemic when delivery options were limited. These methods have enabled retailers to reach customers in suburban, small city, and rural locations, hence expanding the market reach of online grocery services.

Looking ahead to 2030, the growth of online grocery is likely to continue, fuelled by a variety of variables driving demand. Disruptive market players can modify consumer expectations and behaviors, especially in countries that have been reluctant to accept online offerings. As online grocery spreads its reach to new customer demographics and shopping missions, it is prepared to become an increasingly important element of the grocery retail environment (Simmons et al., 2022).

Video streaming: According to Fortune Business Insights (2024), the global video streaming market is expected to reach $671.89 billion in 2024 and $2,486.51 billion by 2032, with a Compound Annual Growth Rate (CAGR) of 17.8% throughout the forecast period (2024-2032).

This spike is primarily driven by an increase in Global video-on-demand (VoD) service customers, which is driven by rising consumer spending on media and entertainment. Particularly noteworthy is the 14% increase in online video subscriptions reported by streaming service providers such as Netflix Inc. and Disney+ in 2021, which amounts to approximately 1.3 billion new subscriptions over 2020. Such a substantial increase in subscribers has resulted in high demand for streaming services (Fortune Business Insights, 2024).

The COVID-19 pandemic is expected to have a significant positive impact on the worldwide market size over the analysis period (2024-2032). According to Fortune Business Insights (2024): “This is attributed to the substantial acceleration in the adoption of online live streaming supported by favorable regulations and a decline in in-person visits to physicians.”. The global market experienced a massive growth rate of 5.7% in 2020, compared to 9.8% in 2019.

Furthermore, the expanding VoD sector is likely to maintain its lead in worldwide Over-The-Top (OTT) revenue, owing to a substantial number of VoD users planning to renew their services and a preference among subscribers for mid-tier platforms. Furthermore, factors such as rising connectivity to the internet and the growing prominence of social media platforms contribute to the market's growth, along with an increase in demand for higher resolution-based videos.

North America leads the worldwide video streaming industry, accounting for nearly forty percent of the total by 2023. This dominance is attributed to the presence of major players like Netflix, Inc., Alphabet Inc., Amazon.com, Inc., and Microsoft Corporation. The region has a strong technological basis, including extensive smartphone use and high-speed internet connectivity, which creates an ideal environment for the development of video streaming solutions. Furthermore, the growing number of users of video-on-demand and video gaming platforms across the US and Canada further accelerates market growth (Fortune Business Insights, 2024).

Logistics and transportation: According to Fortune Business Insights (2023), the global transportation and logistics services market has grown significantly, with a size of $1,149.92 billion in 2021 and expected to grow to $1,804.49 billion by 2029, representing a CAGR of 5.11%. However, the market decreased by 8.3% in 2020 compared to 2019, because of the enormous impact of the global COVID-19 pandemic. The pandemic impacted supply chain operations globally, resulting in lower-than-expected demand in all regions.

In recent years, technological improvements have enabled real-time monitoring of goods across numerous locations, driving up demand for transportation and logistics services. The rising use of cloud-based technologies, as well as the rise in trade agreements, are likely to drive market expansion.

However, the COVID-19 crisis has created enormous challenges for the transportation and logistics industry. Supply chain operations were affected, with uncertainty in the transit of goods as a result of exit restrictions in certain countries. Logistics activities were further limited by the supply-demand imbalance, coupled with limited staff and reduced working hours. The pandemic also influenced services like Domestic Transport Management (DTM), resulting in delivery delays and reduced truck traffic.

Despite these obstacles, the transport and logistics business are likely to benefit from increased global commercial activity and the growing popularity of e-commerce. The increase in demand for online services, particularly following the pandemic, has contributed to the growth of the logistics and transportation sector. Last-mile delivery, particularly in the pharmaceuticals and food and beverage industries, has grown significantly as e-commerce has expanded. Furthermore, the growth of global markets and increasing commercial activities as a result of globalization, along with trade agreements between various countries, are likely to accelerate market expansion (Fortune Business Insights, 2023).

IT Hardware and Devices: The IT hardware market is experiencing substantial expansion, with an estimated size of $130.86 billion in 2024, projected to reach $191.03 billion by 2029,

at a CAGR of 7.86%. This growth is primarily driven by the rapid expansion of the IT industry, which is critical in a variety of sectors including business, healthcare, education, finance, entertainment, and government. As these businesses expand, the demand for IT hardware also grows (IT Hardware Market Size, n.d.).

However, the sector faces obstacles such as increased concern over electronic waste, which is a substantial constraint. Electronic waste, which is generated from discarded electronic equipment, including IT hardware components, has increased because of reduced device lifespans caused by rapid technological improvements.

The COVID-19 pandemic produced a significant impact on the industry, driving organizations and educational institutions to embrace remote work and distance learning methods. This unexpected shift increased demand for IT hardware devices such as laptops, desktops, webcams, and accessories to support remote work and learning environments.

Despite these issues, the rise of cloud computing, big data analytics, artificial intelligence (AI), Machine learning (ML), and Internet of Things (IoT) technologies has helped to boost the IT hardware market. Cloud service providers and companies require sophisticated hardware infrastructure to host and analyze massive volumes of data in real time, resulting in increased demand for specialized hardware components.

Furthermore, ongoing improvements in IT hardware, such as faster processors, larger storage capacity, improved networking technologies, and energy-efficient designs, keep drawing companies seeking to reinforce their IT infrastructure. Additionally, upcoming technologies such as 5G networks, cloud computing, and quantum computing increase the demand for improved hardware infrastructure.

E-commerce platforms help to drive revenue by making it easy for customers to buy IT hardware. Furthermore, the expansion of digital services, cloud computing, and data centers increases the demand for IT hardware infrastructure. Overall, the IT industry's continuous growth, combined with investments in infrastructure and developing technologies, is projected to support demand for IT hardware in the near future.

Advertising: The worldwide advertising sector is expected to expand even further, with estimates indicating consistent growth across mediums and countries.

All advertising marketplaces around the world succeed, although some do better than others. The global advertising market size reached $647.3 billion in 2023. Looking ahead, IMARC Group estimates the market to reach $978.5 billion by 2032, with a CAGR of 4.6% from 2024 to 2032 (Global Advertising Market Report, Trends and Forecast 2024-2032, n.d.-b).

Digital advertising is predicted to dominate the market, accounting for about two-thirds of total spending in 2024, followed by television, outdoor, and radio. The United States leads the sector, with predictions indicating that it will account for the majority of ad spending in 2024, exceeding the combined expenditure of the next ten largest markets.

TV and radio are following different paths after the pandemic, with TV advertising income already exceeding pre-pandemic levels by 2022, while global radio advertising expenditure stays below pre-COVID-19 levels. Out-of-home (OOH) advertising is regaining popularity, particularly digital out-of-home (DOOH) media, which is predicted to grow significantly in revenue between 2023 and 2027.

The internet remains the most appealing channel for advertisers, with global digital advertising revenue projected to surpass $835 billion by 2026. More than half of these revenues come from mobile ad expenditure, reinforcing the trend towards mobile advertising (Navarro, 2023).

The advertising market is growing moderately, driven by technological developments and a shift towards online advertising. Technological improvements, such as the integration of AI and data analytics, play an important role in improving advertising capabilities. These technologies enable targeted and personalized advertising, resulting in more effective marketing methods. Furthermore, there is a growing demand for advertising in a variety of industries, including retail, healthcare, automotive, and e-commerce. This increase in demand boosts sales and brand visibility, leading to the expansion of the advertising sector (IMARC Group, n.d.).

North America dominates the market, while Asia Pacific is developing as a rapidly increasing region as a result of the rise of digital advertising and an expanding middle class.

Key players in this industry are investing in digital and data-driven strategies to precisely target audiences, leveraging massive amounts of user data and advertising platforms. While issues such as advertising fraud and privacy concerns exist, there are several potentials for creative advertising formats and expansion into other countries. Overall, the future of the advertising sector is bright, powered by emerging technology and the incorporation of advertising into everyday life (IMARC Group, n.d.).

2.3 Competition

Amazon operates in a highly competitive environment, with competitors across multiple industries and locations. Competitors have significant resources, large consumer bases, and

strong brand recognition, which increases pressure. The introduction of new business models and well-funded new competitors affects the competitive landscape. Furthermore, technological advances drive competition, while internet access allows smaller enterprises to challenge Amazon's dominant position in the market. Amazon's success depends on effectively navigating the competitive landscape and consistently delivering value to clients despite shifting preferences.

According to Keenan (2023), these are some of the major competitors of Amazon:

1. Walmart, Inc., a US-based company with revenue exceeding $599 billion, holds the title of the world's largest distributor. It derives over 78.1% of its revenue from the same market where Amazon operates primarily, namely the United States. However, Walmart has a more limited international presence and lacks the diversification seen in Amazon's business model.
2. eBay, Inc., also based in the US, stands out as a significant player in the consumer-to-consumer (C2C) market globally. While eBay competes directly with Amazon in the online marketplace, its influence is notably less significant.
3. In contrast to Amazon's dominance in the United States, Alibaba Group has emerged as a significant participant in China's e-commerce market. Alibaba was founded in 1999 by Jack Ma, and its primary retail businesses include AliExpress, Taobao, and Tmall. Each subsidiary presents a distinct challenge to Amazon. Taobao, which operates on a business-to-consumer (B2C) basis, competes with Amazon by offering a diverse range of products, including clothing, accessories, electronics, and computer gear, at affordable costs. Additionally, Alibaba is a powerful competitor to Amazon Web Services (AWS) in the field of cloud computing, with a turnover of $11.7 billion in 2022. The company recorded around $134 billion in revenue in 2021 and maintained a consistent revenue stream of $131 billion for the year ended September 30, 2022.
4. Rakuten, a well-known Japanese e-commerce company founded in 1997 in Tokyo, provides a multidimensional environment that extends beyond traditional e-commerce. In addition to its broad online retail platform, Rakuten offers a wide range of services such as streaming (Rakuten TV), banking, payments, telecommunications, and insurance, making it one of the most flexible competitors in the e-commerce sector.

   Unlike traditional e-commerce platforms, Rakuten uses a unique cash-back system to incentivize users, promote brand loyalty, and encourage shopping on its platform. Rakuten's creative approach, combined with its broad nature, has propelled it to spectacular double-digit growth, with a 13.5% gain year over year. In the second quarter

of 2022, Rakuten earned a total revenue of 456.5 billion yen, further strengthening its position as a powerful participant in global e-commerce.

5. Newegg Commerce, Inc., a major North American e-commerce corporation, specializes in technological products. It operates through both B2B and B2C channels and is tightly aligned with Amazon's core product offerings. With comparable revenue to Amazon, totalling $628 billion in fiscal year 2021, Newegg Commerce is a key competitor in the technology sector.
6. Flipkart, an important competitor in India's e-commerce business, presents a challenge to Amazon's dominance. Flipkart was acquired by Walmart in 2018 and operates on a similar premise to Amazon, but with unique features such as the Flipkart Plus SuperCoins reward plan. Its revenue increased by 12% in 2021, indicating a solid performance. With a 39.7% market share in India, Flipkart competes hard with Amazon in a variety of product categories, including mobile phones and digital content. Flipkart is also growing into digital distribution and content offerings, resembling Amazon's plan.
7. Target, based in Minneapolis, Minnesota, has a similar history to Walmart, which was founded the same year. Target emphasizes itself as a "general merchandise retailer," having an extensive reach with 75% of the US population living within 10 miles of its stores. Its revenue in 2022 is $108 billion, with an impressive growth rate of 12.7%. Although Target is not as large as Walmart or Amazon, its strength lies in its loyal customer base and convenient shopping experience. Target has entered the world of online, providing services such as same-day delivery and order pickup, offering a competitive challenge to Amazon's market dominance.
8. Netflix, a major competitor of Amazon Prime Video, transformed the entertainment sector with its video-on-demand service. Netflix is known for its huge library of original programming and has almost 208 million customers globally Keenan (2023). Its revenue increased to $8 billion in the third quarter of 2022, indicating a continued growth trend. Despite competition from growing rivals in the video streaming field, Netflix maintains a strong market share, accounting for 20% of the US market.
9. Temu has emerged as a potential challenger to Amazon's dominance in the ever-changing e-commerce environment. Temu's aggressive pricing approach and vast product selections have quickly gained attention and market share, making it a viable option for cost-conscious consumers. Although Temu has gained significant popularity in Europe, it has expanded its reach and influence in the United States.

3 Company Overview

This chapter dives deeply into Amazon, attempting to shed light on the broad characteristics of this dynamic company. The review begins with a thorough examination of Amazon, including its historical development, underlying mission, and strategic orientation. Following that, a comprehensive analysis of the company's many operating segments and business units takes place, revealing their respective responsibilities in determining Amazon's overall performance and competitive position. Furthermore, Amazon's strategic orientation is evaluated, identifying important efforts and competitive measures used by the corporation to maintain market leadership. Additionally, the inherent risks connected with Amazon's operational landscape are considered while considering external factors that may impact the company's future trajectory.

Finally, a SWOT analysis is conducted to methodically examine Amazon's strengths, weaknesses, opportunities, and threats, providing useful insights into its strategic landscape.

3.1 Overview

Amazon, founded in 1994 by Jeff Bezos in Bellevue, Washington, immediately ascended to popularity as a global commerce pioneer. Originally known as "Cadabra," the company was quickly renamed to "Amazon Inc." to avoid affiliation with the word "cadaver." Amazon began as an online bookstore from Bezos' garage and swiftly grew to service clients in all 50 US states and 45 countries. Despite initial losses, Amazon achieved amazing growth, increasing revenue and lowering losses in just a year. By 2001, after expanding its product offers beyond books, Amazon had made its first profit, indicating the start of a revolutionary journey.

Amazon's evolution was marked by the introduction of "Amazon Prime," which provided users with unlimited two-day delivery for an annual price. Despite initial scepticism, Prime steadily gained popularity, increasing Amazon's net sales and building a devoted client base. Amazon Prime has over 200 million subscribers worldwide, with 167.2 million in the United States alone as of 2023, up 14.44% from 146.1 million in 2020, according to Feger (2024). Prime Day sales in 2023 totalled $12.9 billion, demonstrating the initiative's considerable impact. Amazon Prime, which is available in 25 countries, generated $40.2 billion in yearly membership income in 2023, highlighting its importance to Amazon's overall financial success.

Looking ahead, Amazon continues to innovate, aiming to revolutionize delivery services with initiatives such as "Amazon Prime Air" and "Amazon Scout." Amazon's logistics network will be further integrated through experimental programs employing drones and autonomous delivery vehicles. Concurrently, strategic alliances and acquisitions, such as Amazon's recent

$8.5 billion purchase of MGM Studios, demonstrate the company's dedication to diversification and growth. As Amazon navigates the future, its consistent commitment to innovation and strategic growth plans positions it as a strong player in the global market (Mje, 2023).

Amazon is a well-diversified firm that generates multiple successful revenue streams. The company specializes in disruptive innovation and can afford to invest in new industries to gain market share from competitors. Net sales increased 14% to $170.0 billion in the fourth quarter, compared with $149.2 billion in the fourth quarter of 2022 (Amazon.com Announces Fourth Quarter Results, n.d.).

Amazon had an unusually eventful year in 2022, with important changes and challenges. It was the first full year after founder and former CEO Jeff Bezos stepped away from an active position in the company, resulting in a period of substantial change. This move was marked by a shift from hyper-growth to cost optimization, as Amazon reduced plans to establish additional fulfillment centers and acknowledged overexpansion in response to COVID-19.

As a result, Amazon's market value fell to $856.94 billion, down 49.32% from the previous year. However, the company's market capitalization returned dramatically in 2023, reaching nearly $1.6 trillion, up 83.23% from 2022. As of May 2024, Amazon's market capitalization is $1.884 trillion, ranking it as the world's sixth most valuable firm.

The disparity in results shows that, while 2022 was an anomaly with weaker financial outcomes, it does not represent the company's overall trajectory. This is the reason why the analysis in the following chapters yields unsatisfactory results for 2022.

3.2 Business units

According to Amzn-20230331 (n.d.) *"We have organized our operations into three segments: North America, International, and Amazon Web Services ("AWS"). These segments reflect the way the Company evaluates its business performance and manages its operations."*

The North American and International segments are geographical divisions of Amazon's retail operations, with revenue derived from retail sales in their respective regions, as well as subscriptions and export sales. Within the retail industry, internet stores account for the majority of sales, with physical stores accounting for a lower percentage.

Ultimately, the focus of this study will be on analyzing Amazon as a unified entity, considering the synergies and interdependencies between its divisions for a comprehensive understanding of its intrinsic value. See Figure A3.

3.3 Strategy

Jeff Bezos, Amazon's founder, former CEO, and Chairman has consistently emphasized the company's devotion to three basic goals: (i) *low price*, (ii) *fast delivery*, and (iii) *wide selection of products*. However, over the last two decades, Amazon's business model has considerably evolved, changing its value proposition towards providing "online convenience", a concept that now underpins all of Amazon's goods and business areas. Moreover, Amazon's business strategy is guided by four principles "*We seek to be Earth's most customer-centric company. We are guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking. In each of our segments, we serve our primary customer sets, consisting of consumers, sellers, developers, enterprises, content creators, advertisers, and employees."* (Amzn-20231231, n.d.).

Amazon's business strategy is strategically designed to ensure long-term growth and sustainable success. This approach is built around a rigorous focus on long-term perspectives, prioritizing sustainable initiatives that drive the business ahead.

Furthermore, Amazon prioritizes producing Free cash flow (FCF), adopting advanced strategies in accounts receivable, accounts payable, inventory management, cash capital expenditures, and debt repayment to optimize cash flow. The strategy emphasizes operational leverage, with a focus on lowering both variable and fixed costs through effective supplier management, operational innovations, and an efficient operating model.

The organization also maintains a simplified cash conversion cycle, which allows for faster inventory turnover and ensures a liquid cash position. Furthermore, Amazon makes significant investments in technology, hardware infrastructure, and engineering, leveraging its tech culture to drive innovation and develop new technologies. A meaningful shareholders' care plan is also required, along with effective control of shareholder dilution, share prices, and stock-based remuneration.

Finally, Amazon actively analyzes and handles currency fluctuations as well as foreign cash management procedures, recognizing the relevance of worldwide sales and macroeconomic factors to its financial performance.

3.4 SWOT Analysis

This section provides a comprehensive overview of Amazon's strategic landscape. The analysis includes a comprehensive examination of Amazon's core strengths and opportunities for improvement, which sheds light on its internal dynamics. Furthermore, external factors

impacting Amazon's strategic trajectory are explored, presenting both intriguing opportunities and potential challenges. Relying on Amazon's 2023 Annual report and other relevant sources, the goal is to provide investors with a complete knowledge of Amazon's strategic orientation and help them navigate the fast-paced technological industry. Table A1 provides a succinct overview of the analysis.

3.4.1 Strengths

Strong brand recognition and reputation: Amazon's reputation in online retail shows dedication to innovation and customer happiness. Amazon has built a loyal client base with its user-friendly interface, reasonable prices, and wide product offers. The broad adoption of Amazon Prime, which offers a variety of incentives, has strengthened the company's market position. Beyond basic familiarity, Amazon's brand is a representation of reliability and security, encouraging customer loyalty and repeat purchases.

Technological Innovation: AWS is a technological power in the cloud computing space, providing a full array of on-demand services. Amazon's commitment to innovation is seen in its investment in AI and machine learning, enhancing current offerings and creating new revenue streams. Amazon remains a technological leader, supported by a large patent portfolio and ongoing research and development efforts.

Financial Stability: Amazon's financial resilience is reflected in its strong balance sheet, which includes significant cash reserves and a solid cash flow. This financial strength allows the company to make strategic investments and pursue acquisitions with certainty. Diversified revenue streams, such as the profitable AWS and advertising services, add to Amazon's financial stability and resistance to market fluctuations. This financial expertise demonstrates Amazon's constant commitment to operational excellence and innovative strategies.

Well-established distribution network: Amazon leverages its extensive distribution network to gain a competitive advantage by delivering goods to customers all over the world quickly and affordably. The company effectively stores and transfers goods to customers using a meticulously planned worldwide infrastructure that includes fulfilment centers, distribution hubs, and sorting facilities. In addition to these facilities, Amazon uses a variety of delivery techniques, including its fleet of cars and collaboration with third-party delivery services, to ensure that customers receive products in a timely manner.

Wide Product Selection: Amazon's success is mostly driven by its wide product offers. The company's dominance in the world of e-commerce can be attributed in large part to the wide range of products it offers, which appeal to a variety of consumer demographics. Furthermore,

Amazon's strong brand identity, combined with its consistent commitment to customer satisfaction, enables it to attract and keep a wide client base.

Strong partnerships and collaborations: Amazon's ability to create and nurture collaborations across industries demonstrates its collaborative strength. This ability is demonstrated most clearly by its partnerships with suppliers and vendors. Amazon has diversified its product offers by cooperating with a wide range of brands and service providers, reducing its reliance on single suppliers. Furthermore, relationships beyond supplier networks, such as those with transportation and logistics companies, have improved delivery services. In addition, collaborations with healthcare organizations to develop novel solutions demonstrate its broad approach. These strategic collaborations have not only driven Amazon's economic growth but also contributed considerably to its overall success.

Global presence, with operations in many countries: Amazon's global reach spans multiple countries, demonstrating its resilience and adaptability on a global scale. Amazon's global success is largely due to its wide e-commerce infrastructure, which allows the company to connect with customers all over the world. This vast reach has enabled sizable online retail market share, strengthening its position as the industry's leader. Beyond e-commerce, Amazon has expanded through AWS and Prime. Amazon's diversification efforts have not only broadened its revenue streams but also strengthened its global presence in a variety of sectors.

3.4.2 Weaknesses

Market Saturation: With its diverse product offering and global presence, Amazon faces the challenge of market saturation, particularly in its core retail sector. As growth prospects become scarcer, the company must strategize to maintain its pace and ensure long-term profitability.

Regulatory Scrutiny: Amazon's large market size has drawn regulatory scrutiny around the world, resulting in inquiries and possibly legal challenges. Scrutiny of its competitive strategies and data privacy protections creates regulatory risks that may limit its operations and increase compliance costs.

Reliance on Third-Party Sellers: While Amazon's marketplace model promotes growth, it additionally places the company's stability at risk. A heavy reliance on third-party sellers for product diversification and inventory management might create quality control issues and jeopardize the company's reputation. Furthermore, changes to seller policies or fees may have an impact on seller participation rates, lowering overall sales and consumer satisfaction.

Data Security: Amazon, with access to personal and financial information, is a major target for cyberattacks. A compromise in data security could have serious consequences for both

Amazon and its customers, including identity theft and financial harm. To protect against these threats, Amazon implemented security measures such as encryption and hardened servers. However, the evolving cyberattack scenario requires continuous focus to protect data integrity. Any breaches in data security could undermine customer trust and cause significant damage to the company's reputation.

Business model easy to copy: Amazon's business model is easily replicated, creating vulnerability. Amazon's success as an online retail pioneer is built on a broad product offering, quick shipping, and convenience. However, this approach is easy for competitors to copy, making differentiation challenging. To maintain its market dominance, Amazon must constantly innovate and adjust its business strategy to remain ahead of competitors.

Limited customer loyalty: Despite its large clientele, Amazon confronts the difficulty of low consumer loyalty. Some customers value brand loyalty over the Amazon platform, complicating efforts to keep them. This offers a risk since customers may defect to competitors if they find better value or service elsewhere, potentially resulting in lost sales and market share. Furthermore, Amazon's development into new markets may be constrained by this loyalty limitation, as established businesses have greater influence over client commitment

Limit product control: As a marketplace, Amazon does not have complete control over the goods that are sold through its website. While the company has established specific standards for third-party vendors, it cannot guarantee the quality or availability of all products presented on its website. This insufficient product control may cause issues for Amazon in terms of customer satisfaction and product safety.

3.4.3 Opportunities

Expansion into Emerging Markets: Amazon may profit from emerging regions with low e-commerce penetration by adapting its services to local preferences. This strategy allows Amazon to reach into the increasingly growing middle class and considerably increase its market share.

Advancements in Technology: Continuous advancements like AI, machine learning, and IoT, enable Amazon to innovate and improve. By investing in these technologies, Amazon can improve operational efficiency, customize customer experiences, and generate new revenue sources, thereby consolidating its position as a tech leader.

Diversification of Services: Amazon's expansion into healthcare, media creation, and advertising offers opportunities for growth and diversification. Amazon may use its

infrastructure and user base to create additional products and services that generate more money, expanding beyond its main business and capturing new market segments.

Expanding physical stores: Amazon has the opportunity to increase its physical retail presence, attracting new customers and providing a tangible shopping experience. While Amazon's offerings currently have limitations in comparison to competitors, the company has experimented with new formats such as Amazon Go locations, which improve convenience and user engagement.

Planned Entry into Crypto: Amazon plans on offering cryptocurrency payment options, such as Bitcoin and Ethereum, allowing customers to use virtual currencies to make purchases on its site.

More acquisitions: Acquiring related businesses enables Amazon to broaden its product offering, improve operational capabilities, and accelerate growth by exploiting synergies and strengths gained from these acquisitions.

3.4.4 Threats

Strong Competition: Intense competition from established rivals such as Walmart and Microsoft threaten Amazon's market dominance. To sustain its competitive advantage, Amazon must prioritize ongoing innovation and smart investments in its retail, cloud computing, and digital media businesses.

Economic Uncertainty: Global economic fluctuations and uncertainties, such as changes in consumer purchasing habits and currency exchange rates, have the potential to impact Amazon's sales and profitability. Economic downturns or geopolitical events have the potential to lower consumer confidence and spending, thereby hurting Amazon's growth trajectory.

Technological Disruptions: The rapid advancement of technology constitutes an ongoing threat to Amazon's economic model. Disruptive technology and new business models have the potential to undermine Amazon's dominance in a variety of industries. To maintain its leadership, Amazon must stay adaptable and aggressive, anticipating and adjusting to technological challenges.

Cybersecurity threats: Amazon's vulnerability to cybersecurity attacks, given to its massive customer data, poses significant dangers, including potential compromises of sensitive information and subsequent loss of customer trust. These challenges highlight the need of Amazon's ongoing investment in strong security measures and proactive monitoring of its systems to successfully handle evolving threats.

4 Value Drivers

This chapter focuses on examining the fundamental drivers of Amazon's financial performance: revenue generation, cost management, and other key drivers that significantly impact the company's valuation. It will provide a comprehensive analysis of the numerous sources of Amazon's revenue, highlighting the complex variety of revenue streams required for the company's growth. Furthermore, the chapter will explore factors influencing expenses, providing insights into profitability and operational efficiency. Additionally, it will delve into elements such as working capital and cash flow, including insights from historical numbers and assumptions used for valuation in forecasted periods.

Specifically, it will analyse the Cash Conversion Cycle (CCC) to forecast Inventories, Accounts payable, and Accounts receivable, as well as CapEx in property and equipment (P&PE). By the end of the chapter, readers will have a thorough understanding of how Amazon generates revenue, manages expenses, and navigates critical drivers impacting its financial health and sustainability, providing insights into how these drivers contribute and will impact the company's valuation.

4.1 Revenue breakdown

In its quarterly and annual financial statements, Amazon breaks down where it receives its revenue into five major categories:

Retail sales: Amazon sells consumer products through both its online and physical stores. Revenue is recognized when control of the products is transferred to the customer, which normally occurs upon delivery to a third-party carrier or, in the case of Amazon delivery, directly to the consumer.

Although online sales account for most of the company's revenue, Amazon significantly increased its presence in the physical retail industry with the 2017 acquisition of grocery chain Whole Foods Market. Amazon also has four different types of physical stores: Amazon Books, Amazon 4-star, Amazon Go, and Amazon Pop Up (Segal, 2022).

Third-Party Seller Services: Amazon provides programs that allow retailers to sell their products in its stores and to fulfil orders using its services. Amazon is not the seller of record in these transactions. The commissions and any associated fulfilment and shipping costs received from these arrangements are recognised when the services are performed, often upon delivery of the corresponding goods to a third-party carrier or, in the case of an Amazon delivery, directly to the consumer.

Advertising: Amazon offers advertising services to sellers, suppliers, publishers, authors, and other businesses through a variety of programs, including sponsored commercials, display advertisements, and video advertising. Revenue is calculated as commercials are delivered based on the number of clicks or impressions.

Subscription Services: Amazon's subscription sales include fees for Amazon Prime memberships and access to a variety of content, including digital video, audiobooks, digital music, e-books, and non-AWS subscription services. Prime memberships provide clients with access to a variety of changing advantages while requiring only a single stand-ready obligation. Subscriptions are often paid for at the time of or before receiving services. Revenue from these arrangements is recognized during the subscription period.

Amazon Web Services ("Cloud Computing Services - AWS"): Amazon's AWS agreements cover global sales of computing, storage, databases, and other services. Revenue is allocated to services using independent selling prices and is primarily recognized when the customer uses these services, based on the number of services provided, such as compute or storage capacity delivered on-demand. Certain services, such as computing and databases, are also given in a predetermined amount over a specified period, with revenue recognized consistently. Sales commissions paid on contracts lasting more than one year are capitalized and amortized over the contract term.

Other Revenue: Other revenue includes sales from a variety of other offerings such as video content licensing and distribution, healthcare services, shipping services, and co-branded credit cards. Revenue recognition occurs when content is licensed or transmitted, and it also takes place when services are performed. See Figure A4 for Amazon Revenue breakdown.

In 2023, Amazon's net sales increased by 12% over the previous year, due to growth across the company's various segments. North American sales increased by 12%, due primarily to increasing unit sales from third-party sellers, advertising, and subscription services. Similarly, international sales increased by 11%, driven by higher unit sales and supported by favorable foreign exchange rates, adding $88 million to net sales. Amazon Web Services (AWS) also experienced a significant rise in sales, up 13%, primarily due to increased customer usage, but this was partially offset by pricing modifications arising from long-term client contracts. Overall, Amazon's sales growth demonstrates its constant dedication to providing competitive pricing, a diverse selection, and increased convenience to its global consumer base.

In 2023, Amazon recorded an operating income of $36.9 billion, up from $12.2 billion in 2022. Due to Amazon's diversified product categories and services, this measure is considered more important than gross profit and margin. Notably, North America's operational income

improved significantly from a loss the previous year to a profit in 2023. This shift can be attributed to increasing unit sales and advertising revenue, which were slightly offset by higher shipping, fulfilment, and technology costs. Similarly, the international segment's operating loss decreased due to increasing unit sales and advertising revenue, despite higher fulfillment, shipping, and technology costs. Additionally, AWS had a substantial improvement in operating income, mainly driven by increased revenues, but this was partially offset by rising payroll and technology infrastructure expenses. Foreign exchange rate variations had a favourable influence on both operational loss and income across segments in 2023, highlighting Amazon's worldwide reach and operations. (Amzn-20231231, n.d.)

Amazon's net sales across all segments have continuously increased year over year, demonstrating the company's strong performance and market expansion initiatives. Table A2 reveals a growth pattern: 2021 showed significant expansion, while 2022 experienced lower growth due to exceptional circumstances, as detailed later. By 2023, there was an effort to rebound toward 2021 levels, indicating a positive trend despite not surpassing the previous peak. This persistent expansion underscores Amazon's ability to acquire market share while capitalizing on evolving consumer preferences and behaviors. As the e-commerce landscape evolves, Amazon remains well-positioned to sustain its growth momentum and drive innovation across its diverse categories. See Table A2.

Amazon's projected revenue for the valuation period will be calculated using a process that considers previous growth trends across its revenue segments. Given the complexity of Amazon's revenue breakdown, which includes various industries within each revenue segment, average historical growth rates from 2020 to 2023 will serve as the basis for future growth. As seen in Table A2, this period saw growth across all areas, with retail sales, third-party seller services, advertising, subscription services, and Amazon Web Services all expanding significantly. By averaging these growth rates across each segment over the historical period, the implementation of this average growth rate for every revenue segment in the forecasted years will be determined. Refer to Table B9 for forecasted revenue.

This approach allows for a well-informed prediction of future revenue, which is supported by the trend observed in the industries examined in Chapter 2.2. All industries demonstrated a trend with projections of expansion for the forthcoming years. See Figure A5.

4.2 Costs Breakdown

This subchapter focuses on Amazon's operating expenses. It involves evaluating several cost categories, including the cost of sales, fulfillment, technology and infrastructure, sales and marketing, general and administrative, and other operating expenses. The approach requires employing relevant comments and informed assumptions to estimate expenses, delivering valuable insights to stakeholders.

Cost of Sales includes the purchase price of consumer products, inbound and outbound shipping expenses, and digital media content fees. Shipping expenses for receiving products from suppliers are included in inventory and recognised as part of the cost of sales when the products are sold to customers. Amazon forecasts an increase in shipping costs as customers adopt more expensive shipping methods and more services. Efforts to reduce shipping costs include increasing sales volumes, optimising the fulfilment network, acquiring better supplier terms, and improving operational efficiencies.

Fulfillment costs primarily include the operation and personnel of North American and International fulfilment centres, physical stores, and customer care centers, as well as payment processing costs. While AWS payment processing falls under fulfillment, AWS costs are mostly classified as "Technology and Infrastructure." These costs can vary depending on a number of factors, including payment processing and transaction costs, productivity levels, volume variations, and the mix of items and services sold. Furthermore, third-party sellers face higher payment processing fees than retail sales.

Technology and infrastructure costs include payroll for research and development, store development and maintenance, and infrastructure-related expenses. These expenses fund the development and deployment of novel software and electronic devices, as well as initiatives such as a satellite network for worldwide broadband service and autonomous vehicles. Infrastructure costs include the server, networking, and data centre charges required to support AWS and other Amazon operations.

Sales and Marketing costs include advertising, salaries for marketing professionals, and AWS-related sales commissions. Amazon uses a variety of marketing platforms to promote customer traffic, including sponsored search, social media advertising, and television advertisements. While the costs of Amazon Prime membership benefits and delivery incentives are not in sales and marketing expenses, these services are powerful global marketing strategies.

General and administrative costs typically include wages and professional fees.

Other operating expenses (income), net are mostly related to asset impairments and intangible asset amortization. In 2022 and 2023, these costs were attributed to store closures and fulfilment network facility closures. See Figure A6 for Amazon Costs breakdown.

Amazon's cost of sales rose in 2023 due to higher product and transportation costs as sales increased. This increase was partially offset by improved fulfillment network efficiencies and lower transportation costs. Changes in foreign exchange rates lowered sales costs by $254 million in 2023. Shipping expenses totalled $83.5 billion in 2022 and $89.5 billion in 2023, respectively. Increased sales and investments in the fulfillment network drove the rise in fulfillment expenses in 2023, although foreign exchange rate fluctuations added $52 million to these costs.

Amazon invests in technology and infrastructure to improve the customer experience and operational efficiency. The rise in technology and infrastructure costs in 2023 compared to the previous year is due to greater infrastructure spending and higher payroll costs associated with technical teams expanding existing products and services. With expectations of continued growth, Amazon anticipates increased spending on technology and infrastructure over time.

Amazon's sales and marketing costs are essentially variable expenses that fluctuate following sales growth. The rise in sales and marketing costs in 2023 over the previous year is mostly due to greater wages and related expenses for marketing and salespeople.

For Amazon's cost breakdown, a similar methodology will be used over the predicted years, using the average of historical growth rates for each operating expense. Similar to revenue forecasting, this approach seeks to capture the underlying trends and dynamics within Amazon's cost structure. These trends, as shown in Table A3 suggest that overall costs have been decreasing during this period. As a result, it is reasonable to use the average growth rates generated from this historical data to forecast the future trajectory of each operating expense. This ensures that Amazon's cost structure is accurately estimated in the valuation study. Refer to the Table B10 for cost projections.

However, it is worth noting that "other operating expenses" increased significantly in 2022. To maintain accuracy, the average growth rate for "other operating expenses, net" will not be used. Instead, the average of all operating expenses (14.17%) will be used for this cost in specific. This change is required to preserve realism and sustainability in the forecasted period, as it is impossible to expect "other operating expenses" to grow at a rate of 571%, as evidenced by the anomalous growth in 2022. This careful approach enables a more accurate estimate of Amazon's cost structure for valuation purposes.

4.3 Working Capital and Cash Flow

Working capital and cash flow are fundamental concepts in financial analysis, with working capital demonstrating the difference between a company's current assets and current liabilities and cash flow showing the net amount of cash entering and exiting the company. Changes in working capital can have a substantial impact on a company's cash flow, affecting its financial health and operational efficiency.

Amazon's net working capital dynamics between 2020 and 2023 show significant changes and volatility, as showed in Table A4, the positive improvements in net working capital indicate Amazon's ability to increase its current assets relative to its current liabilities.

This increase indicates that Amazon effectively managed its short-term resources, improving its capacity to meet operational expenses, investments, and debt commitments. Favorable shifts in net working capital indicate a strong financial position, allowing Amazon to pursue growth opportunities despite economic challenges. However, the decrease in net working capital in 2022 diverged from this pattern. Despite this, Amazon's rebound in 2023 demonstrates its resilience and ability to re-establish financial equilibrium.

Positive fluctuations in net working capital reflect Amazon's competent management of short-term assets and commitments, which strengthens its financial stability and investor trust. These patterns demonstrate Amazon's tactical awareness in improving operating efficiencies and fostering long-term growth. Furthermore, the favorable patterns witnessed in the predicted years demonstrate Amazon's capacity to maintain its financial strength and operational effectiveness, indicating great prospects for future growth and success.

The CCC is a key metric for assessing a company's operational efficiency and financial health. It measures the time in days it takes for a company to convert cash invested on inventory into cash from sales, including inventory turnover, accounts receivable collection, and accounts payable payment operations. A shorter CCC is often preferred because it signals faster cash turnover and less cash locked up in working capital. Amazon's analysis of the CCC from 2020 to 2023 shows interesting behaviours, shown in Table A5. Despite changes in individual components the overall CCC remained negative across the duration.

The CCC's application differs by industry. Retailers such as Walmart Inc., Target Corp., and Costco Wholesale Corp. benefit from its use due to their involvement in inventory purchase and management. Notably, online retailers such as eBay Inc. and Amazon.com Inc. frequently have negative CCCs due to their business strategies. Online retailers frequently receive payments in their accounts for sales of goods that are owned and served by third-party sellers

who use the online marketplace. These companies, however, do not pay the sellers immediately after the sale, but rather on a monthly or threshold-based payment cycle.

This method allows these companies to hold onto the cash longer, resulting in a negative CCC. Furthermore, if the products are provided directly by a third-party seller, the online retailer never keeps any inventory in-house. For these companies, a negative CCC can act as a source of capital, increasing their financial flexibility and resilience. The forecast for inventories, accounts payable, and accounts receivable, assuming a constant Cash Conversion Cycle (CCC), is detailed in Chapter 6.3.

4.4 Capital Expenditures (CapEx)

CapEx is a crucial indicator of a company's commitment to maintaining or expanding its business activities. It shows the amount invested in existing and new fixed assets, demonstrating the company's strategic focus on expanding its asset base. Unlike regular expenses on the income statement, CapEx is capitalized and recorded as an investment on the balance sheet, with the cost spread over the asset's useful life.

It is typically identified in the cash flow statement from investment operations, which are classified as capital spending, purchases of Property, Plant, and Equipment (PP&E), or acquisition expenses. Tracking CapEx provides crucial details into a company's investment plan, operational efficiency, and long-term growth potential, which are important concerns for investors and stakeholders.

CapEx also has an impact on Amazon's balance sheet by increasing the value of fixed assets, classified as PP&E. In line with Amazon's strategic emphasis on cash growth, the proportion of CapEx relative to revenues will be used for the projected growth in the forecasted years. The proposed approach involves sustaining an annual CapEx growth rate of 11%, which corresponds to the average porportion of CapEx relative to Revenues over the previous 4 years. Table A6 describes the estimated CapEx trajectory.

The Capital Asset Turnover ratio was used to calculate the balance sheet forecasts of PP&E used in Amazon's valuation. Table A7 shows the capital asset turnover, expected to remain constant at its historical average of roughly 3 for the foreseeable future. This methodology aims to align PP&E with long-term revenue growth projections. By keeping capital asset turnover at its historical level, realistic assessments for short-term PP&E investments can be provided. It is realistic to anticipate Amazon to continue investing in CapEx to sustain its operations and expand its operational capabilities.

5 Financial Analysis

This chapter will conduct an in-depth financial assessment of Amazon, focused on the period between 2020 and 2023. The analysis will look at numerous critical areas, including profitability, liquidity, solvency, capital structure, and EVA. The purpose of evaluating these areas is to acquire a comprehensive knowledge of Amazon's financial health and performance during the last few years. The information gathered is critical for assessing the company's current situation and will provide significant insights into estimating its valuation from 2024 to 2031. The following sections will go into each of these components, providing a thorough analysis of Amazon's financial trajectory and the implications for future growth and stability.

5.1 Profitability Analysis

Analysing profitability ratios is critical for evaluating a company's financial health and performance. These indicators provide critical information about how successfully a company uses its resources to generate profits and provide returns to shareholders. This analysis focuses at three major profitability indicators: return on assets (ROA), return on equity (ROE), and return on invested capital (ROIC).

Return on Assets (ROA) is an important profitability ratio that measures a company's ability to use its assets to generate profits. It can be calculated by dividing the EBIT by the Total Assets. It assesses how much operating profit a company makes for every dollar of assets it has. Amazon's ROA for 2020, 2021, 2022, and 2023 was 7.53%, 9.07%, -1.28%, and 7.12%, respectively, as presented in Table A8 Amazon's ROA in 2023 was 7.12%, indicating that the company generated $7.12 in operating profit for every $100 in assets. This large rise of 8.40 percentage points over the previous year indicates better asset utilization and profitability. Investors and stakeholders frequently view a greater ROA positively, signalling financial health and efficiency.

ROE, or Return on Equity, is an important metric for determining how effectively a company uses shareholder capital to generate profits. It can be calculated by dividing the Net Income by Equity. Amazon's ROE in 2020, 2021, 2022, and 2023 was 22.85%, 24.14%, -1.87%, and 15.07%, respectively, as shown in Table A8. In 2023, Amazon's ROE was 15.07%, which means that the company earned 15.07 cents on each dollar of shareholder equity. Despite market volatility, Amazon has proved its capacity to successfully utilize shareholder assets, demonstrating good financial performance and a commitment to providing returns to investors. Investors and analysts regularly track ROE because it provides information about a company's

ability to generate profits from shareholder investments. A higher ROE usually indicates successful use of shareholder capital, whereas a lower ROE may imply inefficiencies or difficulties in generating returns for shareholder investments.

Finally, the ROIC assesses how efficiently a company's capital assets generate earnings, regardless of the financing structure. Amazon's ROIC in 2020, 2021, 2022 and 2023 was 10.32%, 10.91%, -1.80% and 8.23%, respectively, as shown in Table A8. In 2023, Amazon's ROIC was 8.23%, which means the company generated around $8.23 in earnings for every $100 invested. This represented an impressive rise of 10.04 percentage points over the previous year, demonstrating Amazon's improved capacity to generate returns on capital investments. Regardless of market volatility, ROIC provides vital insights into Amazon's basic business operations and its ability to generate cash flow from invested capital.

Despite not reaching the peak ratio achieved in 2021, there was improvement from 2022 to 2023. However, 2022 exhibited a downturn, which is an exceptional occurrence we have observed. By 2023, Amazon showed substantial recovery across all analysed ratios, although it did not exceed the peak ratio of 2021. This trend highlights Amazon's resilience in adapting to market challenges and optimizing financial performance across various metrics.

In summary, these profitability statistics indicate that Amazon encountered some difficulty in 2022, with decreases in ROA, ROE, and ROIC over the previous year, signalling possible difficulties in generating earnings and returns on assets, equity, and invested capital.

Table A9 illustrates how Amazon's EBITDA fluctuated over time. Beginning at $48,079 million in 2020, it increased to $59,312 million in 2021, followed by a slight decline to $54,169 million in 2022, possibly impacted by market dynamics and operational changes. However, Amazon experienced a considerable rebound in 2023, with EBITDA reaching $85,515 million. Similarly, EBITDA margins were between 12.45% and 10.54% from 2020 to 2022, before rising to 14.88% in 2023. This increase represents improved operational efficiency, corresponding to about 14.88 cents of operational profit per dollar of sales generated in 2023.

The EBITDA margin represents a company's operating profit as a percentage of its revenue. Knowing the EBITDA margin enables a comparison of one company's actual performance to that of others in the same industry. The larger a company's EBITDA margin, the lower its operating expenses in proportion to total revenue.

Amazon's net income fluctuated over the studied period, reaching $21,331 million in 2020, rising to $33,364 million in 2021, falling to a loss of $2,722 million in 2022, and returning to $30,425 million in 2023. These fluctuations can be attributed to a variety of reasons such as market conditions, operational costs, and strategic initiatives. Despite the slowdown in 2022,

Amazon demonstrated perseverance and strategic adaptation, as seen by its rebound and positive net income for 2023.

The net profit margin illustrates how much of each dollar in revenue collected by a company translates into profit. For every dollar of revenue generated by Amazon in 2023, approximately 5.29 cents translate into profit after accounting for all expenses, including operating costs, taxes, and interest. See Table A10.

5.2 Liquidity Analysis

Liquidity analysis enables us to assess Amazon's ability to meet its short-term financial commitments. Essentially, the goal is to determine whether Amazon can use its current assets to cover its current liabilities. Table A11 provides an overview of these ratios.

Between 2020 and 2023, Amazon's Current Ratio remained above one except for 2022. In 2023, the Current Ratio was 1.05, demonstrating Amazon's ability to service immediate obligations exclusively using current assets. Essentially, for every dollar in current liabilities, the company had $1.05 in current assets.

Furthermore, the Quick Ratio is evaluated, which is a more rigorous measure of liquidity because it eliminates inventories from current assets. Amazon's Quick Ratio in 2023 was 0.84, indicating that the business had $0.84 in highly liquid assets (including cash, marketable securities, and receivables) to cover its short-term obligations. As shown in Table A11, this ratio remained below 1 during the study period.

Finally, the analysis includes the Cash Ratio, which evaluates the company's capacity to cover short-term obligations with its cash and cash equivalents. In 2023, Amazon's Cash Ratio increased to 0.44, showing that it has $0.44 in cash and cash equivalents for every dollar in short-term commitments. This improvement indicates an improved liquidity position for Amazon in 2023 compared to the previous two years, although it still falls short of the optimal threshold of 1.

It is essential to note that a ratio greater than 1 implies a stronger liquidity situation, whilst a ratio less than 1 may signal possible liquidity issues. These liquidity measures provide crucial insights into Amazon's ability to meet short-term financial obligations.

Over the years spanning from 2020 to 2023, Amazon showcased a dynamic cash flow landscape demonstrated in Table A12. Notably, the company generated constant positive net cash flows from operating activities (NOCF), which increased significantly during the period. Beginning with $66,064 million in 2020, these operating cash flows increased to $84,946

million in 2023. These strong operating cash flows efficiently supported the company's investment operations, which fluctuated during the same period. Amazon continuously experienced negative net cash flows from investing activities from 2020 to 2023, which were largely offset by positive net cash flows from financing activities, having 2020 as an exception, illustrating its strategic financial management in the context of investment hurdles.

As a result, Amazon's average net cash flow from 2020 to 2023 surged significantly, reaching $73,890 million. This strong cash flow performance shows Amazon's effective financial management and demonstrates its ability to efficiently allocate resources to fund growth plans and produce long-term shareholder value.

5.3 Solvency Analysis

This solvency analysis provides insights about Amazon’s capacity to meet its long-term obligations, through an in-depth assessment of the components of its financial structure. See Table A13.

In 2023, Amazon's equity multiplier of 2.61 indicates a capital structure primarily reliant on debt financing, with a notable portion of assets funded through borrowing rather than shareholder investment. The company's total debt-to-total assets ratio of 0.62 further emphasizes this reliance, with around 62% of assets financed by debt and 38% by equity. While this demonstrates financial stability, it also highlights potential risks associated with higher debt levels, including increased interest expenses and vulnerability to economic downturns. Monitoring Amazon's debt management strategies is essential for assessing its long-term viability amidst evolving market conditions.

Amazon's interest coverage ratio demonstrates its strong financial condition, with the value of 11.58 in 2023, which means that Amazon’ EBIT could cover approximately 12 times its interest payments. However, a significant drop to 5.17 in 2022 suggests a divergence, caused by extraordinary circumstances. Despite this abnormality, the overall trend highlights Amazon's strong capacity to easily cover interest expenses, indicating solid financial management and a healthy debt-to-profitability ratio.

Amazon's Net debt-to-EBITDA ratio of 2.95 in 2023 means that the company would take approximately 2.95 years to repay its debt assuming both net debt and EBITDA stayed constant. This ratio measures financial leverage, with lower values suggesting a healthier financial condition. While Amazon's ratio is greater than some industry benchmarks, it is important to note the company's considerable cash reserves and outstanding EBITDA performance.

5.4 Capital Structure

Amazon's capital structure experienced significant changes between 2020 and 2023. Equity not only expanded in absolute value but also gained significance in the capital structure, rising from $93,404 million in 2020 to $201,875 million in 2023. Meanwhile, total asset value increased significantly, from $321,195 million in 2020 to $527,854 million in 2023, mostly to cash increase. However, the book value of debt has increased, rising from $227,791 million in 2020 to $325,979 million in 2023. As a result, the debt-to-equity ratio fluctuated, decreasing from 2.44 in 2021 to 1.61 in 2023. Refer to Table A14 to see the capital structure overview of the company.

5.5 Economic Value Added

An Economic Value Added (EVA) analysis was performed to evaluate Amazon's asset utilization efficiency as part of an in-depth review of its financial performance. Amazon's ROIC was 8.24% in fiscal year 2023, with a WACC of 8.4%. The result of subtracting the WACC from the ROIC and then multiplying by the invested capital (IC) was a negative $603 million. This negative EVA indicates that Amazon's assets do not generate returns that exceed the cost of capital, implying potential inefficiencies in capital allocation and utilization. The EVA computation takes into account the capital utilized by the company, which is calculated as (Total Assets - Accounts Payable - Cash).

As a result, Amazon will need to address these inefficiencies while also increasing profitability and operational efficiency to generate a positive EVA, ultimately improving its financial performance and maximizing shareholder value in line with its strategic objectives.

6 Valuation

In this chapter, Amazon's fair value as of December 31, 2023, will be calculated using two different methodologies: DCF and Relative valuation analysis. In addition, we will use secondary approaches such as market pricing and consensus analysis to gain significant insights into market players' viewpoints and judgments.

For the FCFF analysis of Amazon, the valuation model is rooted in historical data from 2020 to 2023. Cash flow projections extend from 2024 to 2031, with a terminal value established beyond this period to account for perpetual cash flows. The terminal value assumes continued growth at a fixed growth rate, providing an estimate of Amazon's intrinsic value. This method combines near-term estimates with perpetual cash flows to provide a comprehensive assessment of Amazon's future financial performance and value potential.

In the previous section, we described the approaches used to analyze various factors such as revenues, costs, capital expenditures, depreciation, and working capital. Now the attention changes to an in-depth analysis of the forecasted cash flows based on these assumptions and a breakdown of the computations made.

6.1 Operating Expenses and EBIT

Amazon distinguishes itself in the technology business by offering numerous advantages across a wide range of categories. With its solid infrastructure, Amazon Web Services (AWS) stands out as a prominent participant in the cloud computing sector, providing a wide range of services to organizations of every nature. With its deep knowledge and creative solutions, AWS continues to dominate the market and produce significant revenue growth for Amazon.

Additionally, Amazon's e-commerce platform continues to be a powerhouse in the retail sector, with its vast product selection, streamlined logistics, and exceptional customer service. The company's constant dedication to customer satisfaction and ongoing innovation allows it to maintain a competitive advantage and generate substantial improvements in online retail sales.

Furthermore, the company's expansion into new industries, such as digital streaming, artificial intelligence, smart home devices, advertising, and subscription services, broadens its revenue sources and strengthens its total market position. Amazon is continuing to extend its ecosystem and generate long-term value for shareholders by focusing on emerging trends and investing in new technology.

Having said that, given Amazon's strong position across several industries and the anticipated expansion in various sectors, it is likely that Amazon's operational income will continue to be strong, as projected (see Table A15). This is a strong indicator of Amazon's overall financial health and capacity to make the most on its diversified revenue streams and strategic investments in the years ahead.

The analysis of Amazon's operating expenses and EBIT projection often assumes that there will be no change in the current cost structure. Historical data from 2020 to 2023 was used to calculate averages for each expense category, which serve as a reference for estimates in 2024 and beyond. Considering our extensive market overview and company study, Amazon's continued expansion is well supported by its diverse business model, creative solutions, and persistent commitment to customer pleasure.

6.2 CapEx and Depreciation

Amazon's CapEx strategy shows the company's commitment to long-term growth and increased competitiveness in the rapidly changing e-commerce and cloud computing industries. Amazon understands that making prudent investments in infrastructure and technology is critical for sustaining operating efficiency, meeting customer demands, and promoting innovation.

Amazon intends to not only meet but even outperform market expectations by constantly enhancing its operational capabilities and investing in cutting-edge technologies.

Amazon's CapEx primarily consists of expenditures in data centres, fulfilment centres, and digital infrastructure to support its vast e-commerce platform and cloud services arm, AWS. Furthermore, Amazon's CapEx frequently outpaces its D&A expenses, reflecting the company's determined development strategy and continual attempts to restore and extend its asset base. This disparity shows that Amazon is constantly reinvesting its revenues in infrastructure upgrades, product expansion, and technical advancements.

Amazon reduces the risk of equipment obsolescence, improves operational performance, and protects its intellectual property by precisely monitoring depreciation and ensuring that assets preserve their worth over time. This proactive approach enables Amazon to capitalize on growing market possibilities, retain its highly qualified workers, and sustain technological innovation. Refer to Table A6 and Table A15.

6.3 Working Capital

Except for 2022, historical data show that Amazon consistently holds more current assets than current liabilities (See Table A16). The forecast for the values of Accounts Receivable, Payable, and Inventory for the coming years used a methodology based on the three-year average holding period, average collection period, and average payment period (See Table A17).

This technique sheds light on Amazon's expert working capital management and dynamic allocation of short-term assets and liabilities. Positive changes in net working capital across time confirm Amazon's successful management of short-term financial commitments.

6.4 WACC

In this subchapter the focus will be on each subcomponent of WACC, that is crucial for the FCFF valuation method.

6.4.1 Capital Structure

The Market value of Equity and Market value of Debt were calculated to quantify the Debt-to-Capital structure and set a Target Capital Structure that follows the current one which will be 0.2. See Table A18.

For the MVE the closing price on December 31, 2023, was multiplied by the number of shares outstanding and the MVD was assumed to be the same as the Book Value of Debt.

6.4.2 Risk-free rate

The risk-free interest rate was estimated based on the yield on US Treasury 10-year zero-coupon issues, with a value of 3.86%, as of December 31, 2023 (2023-12-31, Release Tables: Fitted Yield on Zero Coupon Bonds by Maturity, Monthly | FRED | St. Louis Fed, 2023b).

6.4.3 Beta Value

Beta value was retrieved from Yahooh Finance , being 1.16 5Y (Monthly) for Amazon.

6.4.4 Market risk premium

The Premium on Equity Risk is determined using the Damodaran website, with the market Equity Risk for US stocks set at 4.6%.

The Country-Risk Premium for Amazon's primary operations in the US is 0%, based on the US Country Risk premium from the Damodaran website. Incorporating this market risk

premium into our analysis ensures that we account for the anticipated compensation for the risks linked with investments in the overall market.

6.4.5 Cost of Equity

Based on the Cost-of-Equity factors indicated at the beginning of the section, the following data comprises every pertinent variable required for calculating the Cost of Equity parameter through CAPM.

The 9.19% cost of equity reflects the baseline return that investors expect when holding the company's shares, considering both the inherent risks of the investment and the potential rewards offered by the broader market.

6.4.6 Cost of Debt

Amazon's 5.46% cost of debt was calculated using a snapshot of the interest expenses ($3,182 million) and financial debt ($58,314 million) given in the 2023 annual report (See Table A19). This value shows the interest rate that the company must pay on its existing debt, indicating its risk of default. However, it is essential to note that the cost of debt varies over time, driven by factors such as current interest rates, the company's creditworthiness, and broader market conditions.

WACC uses the after-tax cost of debt, and the tax rate that will be considered for Amazon's projected Cash flows will be the corporate tax rate fixed at 25% for the United States according to Damodaran (2024).

6.4.7 Computation of WACC

After all the above components are determined, it is now possible to calculate the WACC of the company, this being 8.4%. This means that to Amazon generate value for its shareholders, it needs to generate a return higher than this rate. See Table A19.

6.5 DCF Valuation

In this subchapter, Amazon's valuation will be assessed using the FCFF method. For this, all the assumptions made in the previous sections will be used to calculate FCFF using Equation 13. Discounting future cash flows is crucial for determining their present value, which in turn assists in evaluating a company's financial performance and attractiveness for investment. The previously calculated WACC will be used as the discount factor.

6.5.1 Terminal Value and Growth Rate

As previously stated in the sections, the historical average growth rate will be used for revenue growth, with an assumption that the company will maintain its historical growth trajectory and that external factors affecting revenue generation will remain generally stable.

Determining the company's Terminal Value requires estimating the growth rate for perpetual cash flows, which will be assumed in this analysis based on the predicted GDP growth rate. As of March 2024, Fitch Ratings reduced its global GDP growth forecast to 2.4%. According to Statista (2024), the GDP growth forecast until 2028 appears stable, therefore a perpetual growth rate of 2.4% will be assumed. See Figure A1.

It is critical to recognize that the perpetual growth rate is an assumption that must be examined and adjusted regularly to account for changes in the company's performance and market conditions. Terminal value is $ 3,415,566 million and, the discounted Terminal value at WACC is $1,791,426 million. This represents the present value of the perpetual cash flows of the company. See Table A20.

6.5.2 Fair Value

DCF method’s core concept is the use of a two-step approach to value. Firstly, we compute the value of the business (EV). Then we move to the computation of the EQV, adjusting the enterprise value by adding the value of non-operating assets and subtracting financial debt.

After having the FCFF in the projected years, the computation of EV can be assessed, being the PV of all free cash flows generated by the company, leading to $2,039,252 million.

To compute the EQV, it is necessary to make adjustments in the EV where Cash and cash equivalents ($69,782 million) were added and financial debt ($58,314 million) was subtracted to the EV.

Finally, the EQV is $2,050,720 million and using 10,800 millions of shares outstanding we have a target price of $189.88, representing a upside potential of 24.97%, when compared to the closing price on $151.94. See Table B11

6.5.3 Sensitivity Analysis

A sensitivity analysis was conducted to assess how alterations in certain variables might impact the share price, based on the underlying assumptions.

Two key elements were selected for this analysis: the perpetual growth rate and the WACC. The perpetual growth rate plays a significant role in valuing perpetual cash flows, thus directly

influencing the share price. Given that the perpetual growth rate is derived from GDP forecasts and considering the current instability of the world economy, it was considered prudent to evaluate the sensitivity of the share price to changes in this variable. Similarly, the WACC, serving as the discount rate in the DCF method, has a profound impact on both the firm's valuation and its share price.

Adjustments were made within specific ranges: 0.2 percentage points up or down for the perpetual growth rate and ±0.5 percentage points for the WACC. See Table A21.

The sensitivity analysis reveals that Amazon's share price is extremely sensitive to changes in both the perpetual growth rate and the WACC. The share price fluctuation, which ranges from a potential increase of 36.45% to a reduction of -22.38%, highlights the significance of these variables in financial modelling. Investors and analysts must carefully analyse these elements, as changes in economic conditions or company-specific risks that affect these inputs can have a major impact on the perceived value of Amazon's shares.

6.6 Relative Valuation

A Relative Valuation analysis was used to evaluate and benchmark Amazon's share price against that of comparable companies. Data from trustworthy sources, including Refinitiv, were combined with insights from Amazon's financial statements and risk analysis section to identify important competitors in various market areas. Considering that Amazon has five business divisions as was explored in the above sections, within each subsegment of Amazon, it was found the following peers in each market:

First Party Retail Group: Lowe's, Inc., Walmart, Inc., Target Corp

Third-Party Retail Group: Alibaba Group Holding Limited, Ebay, Inc., Etsy, Inc., Rakuten Group Inc

*Retail Subscription Services (*Prime Video*)*: Netflix, Inc., Spotify Technology S.A., Roku, Inc.

Cloud Computing Services (AWS): Oracle Corp., SAP, S.E., Salesforce, Inc.

Advertising: Alphabet, Inc.,

Following the identification of the peer group for Amazon's Relative Valuation, the methodology involved:

1. Calculating the average and standard deviation for each multiple within the peer group.
2. Employing a rule to identify and exclude outliers, defined as values falling outside the interval between the average minus and plus standard deviation.

3. Computing the new average for Amazon's peers after the exclusion of outliers.

For EV/EBITDA, multiplying the adjusted average with Amazon's EBITDA value for 2023 determined Amazon's EV to be $1,190,506 million. Amazon's Equity Value (EQV) was derived by incorporating non-operating assets and deducting financial debt from the EV. This implies a share price of $110.23, representing a decrease of approximately 27% compared to the share price as of December 2023. See Table B12.

Similarly, for the P/E multiple, the average multiple was computed by multiplying the adjusted average with Amazon's 2023 Net Income, and Amazon's EQV was calculated to be $726,245 million. This suggests an implied share price of $67.24, reflecting a substantial decrease of about 56% compared to the current share price. See Table B13.

Finally, for the P/B ratio, multiplying the adjusted average of 5.62 with Amazon's Equity Book Value yielded an EQV of $1,134,172 million. This implies a share price of $105.02, indicating a downsizing of 31%. See Table B14.

6.7 Valuation Results

As of December 31, 2023, an equity valuation of Amazon was conducted, revealing significant insights into the company's share price through different valuation methods. The DCF approach estimated Amazon's share price at $189.88, indicating an upside potential of 24.97% compared to the actual share price of $151.94 on the same date. This suggests that Amazon's stock was undervalued at the end of 2023, with the DCF model highlighting the potential for future growth based on assumptions about future cash flows, growth rates, and the WACC.

In contrast, the relative valuation methods, which included EV/EBITDA, P/E, and P/B ratios, pointed towards a downside. The EV/EBITDA ratio suggested a share price of $110.23, reflecting a downside potential of -27%. The P/E ratio indicated a share price of $67.24, with a significant downside potential of -56%. The Price/Book Value ratio estimated a share price of $105.02, implying a downside potential of -31%. These results suggest that, when compared to its peers, Amazon's stock appeared overvalued at the end of 2023.

The discrepancies between the DCF and relative valuation methods highlight different perspectives on Amazon's fair value. The DCF approach, with its optimistic outlook, suggests significant upside potential, while the relative valuation methods caution against possible overvaluation relative to peer companies.

The prior sensitivity analysis indicates that Amazon's share price might vary from $259.14 in the best-case scenario to $147.42 in the worst-case scenario. This range illustrates the various

outcomes depending on variations in the discount rate, and growth rate, including both optimistic and pessimistic scenarios. Notably, under the worst-case scenario considered (with a growth rate of 2% and a WACC of 9.4%), the projected share price of $147.42 does not differ considerably from Amazon's actual share price of $151.94 on December 31, 2023. This comparison highlights the relative stability of the share price even in less favourable situations, implying that while there is variability, the actual market price remains within a close range of the worst-case estimate.

Since January 2024, Amazon's share price has shown an increasing trend, reaching approximately $180 as of May 2024. This upward movement supports the positive outlook indicated by the DCF valuation and reflects favorable market projections for Amazon's future performance. The recent rise in share price suggests that investor sentiment is becoming more optimistic, aligning more closely with the higher valuation indicated by the DCF method.

Conclusion

The major goal of this project was to calculate the fair value of Amazon's shares and compare them to the stock price as of December 31st, 2023. This valuation processes consisted of a DCF analysis, a relative valuation, and a sensitivity analysis.

To establish a solid foundation for this thesis on Amazon's equity valuation, the Theoretical Overview section provided a thorough understanding of the key methodologies used in equity valuation. This theoretical foundation was critical in guiding the subsequent analysis. Furthermore, a thorough assessment of Amazon's industry, macroeconomic environment, and company-specific factors showed various growth potential, which influenced the valuation approaches and assumptions.

For the DCF valuation, the FCFF method was employed. This process involved projecting future cash flows and discounting them using the WACC, which accounts for the expected returns for both equity and debt investors. For the relative valuation approach, a peer group of companies with comparable risk profiles and cash flow potential was identified. Three multiples were utilized for comparison: the P/E ratio, EV/EBITDA, and P/B.

The DCF analysis indicated that as of December 31st, 2023, Amazon's share price was undervalued by approximately 24.97%, suggesting a target price of $189.88 compared to the actual price of $151.94. The sensitivity analysis further explored different scenarios, highlighting situations where the share price could vary in terms of undervaluation or overvaluation, showing how sensitive it is to changes in the variables used (growth rate and WACC).

In contrast, the relative valuation approach yielded consistently negative results across all three multiples: EV/EBITDA, P/E, and P/B. The multiples indicated overvaluation by 27.45%, 55.74%, and 30.88%, respectively. This suggests that, based on the relative valuation method, Amazon's shares appeared to be trading above their intrinsic value, which would typically imply a recommendation to sell.

Despite the mixed signals, the final recommendation is to buy Amazon shares for 31st December 2023, following the DCF method results. This decision is justified for two main reasons. Firstly, the objective of discounted cash flow valuation is to find the value of an asset based on its cash flow, growth, and risk characteristics. The DCF analysis indicated that Amazon's share price was undervalued, with a target price aligning closely with the current price of $189.08 as of June 23rd, 2024.

Secondly, Relative valuation aims to value an asset based on how similar assets are currently priced by the market. However, Amazon is a highly diversified company with multiple business units, making it very difficult and tricky to find comparable peers. This complexity reduces the reliability of the relative valuation results, which indicated overvaluation across all three multiples (EV/EBITDA, P/E, and P/B).

Furthermore, it is important to consider that data limitations affected the quality of the model's assumptions and final results. The analysis relied heavily on publicly available data due to restricted access to internal and external information, which could have impacted the overall accuracy.

Given these considerations, the recommendation in December 2023 is to buy Amazon shares, acknowledging the robust performance indicated by the DCF analysis and the challenges associated with relative valuation for such a diversified company. This recommendation is based on the evaluation for the end of 2023. Furthermore, even if this evaluation were current and not targeted for December 2023, the current market price already aligns closely with the calculated target of $189.08 as of June 23rd, 2024. Therefore, the rationale for buying at this moment is less clear.

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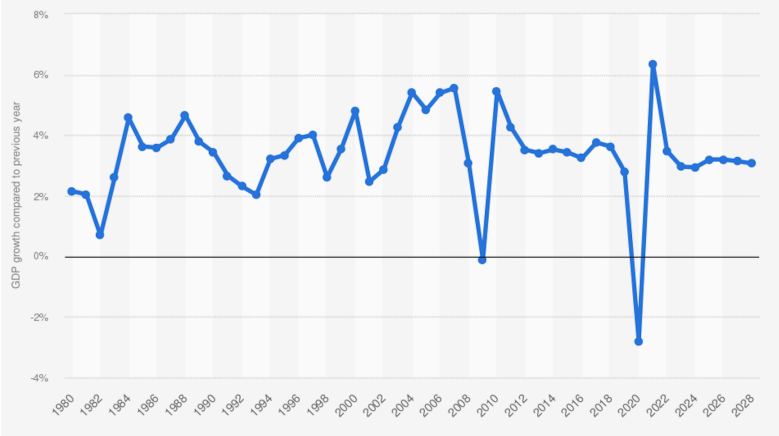
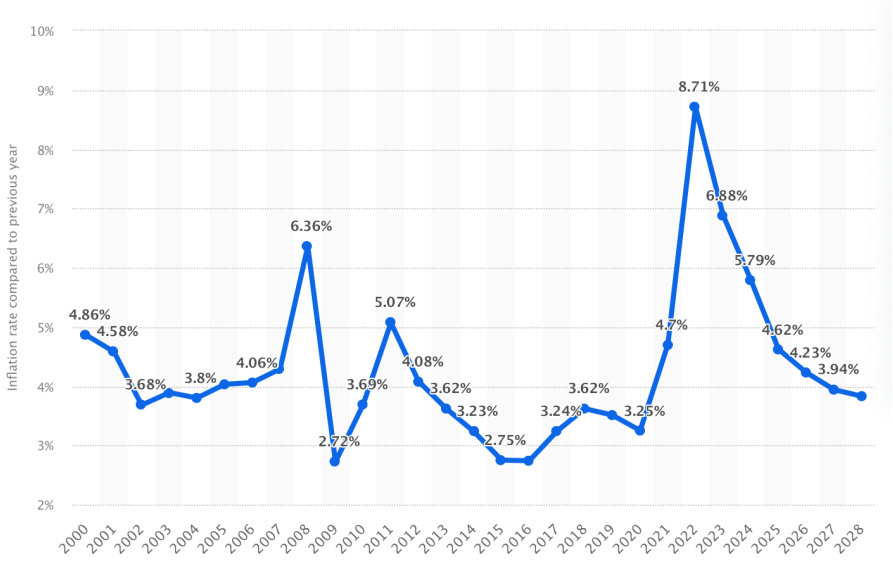
Appendix A

Figure A1 - Growth of the global gross domestic product (GDP) from 1980 to 2023 with forecasts until 2028



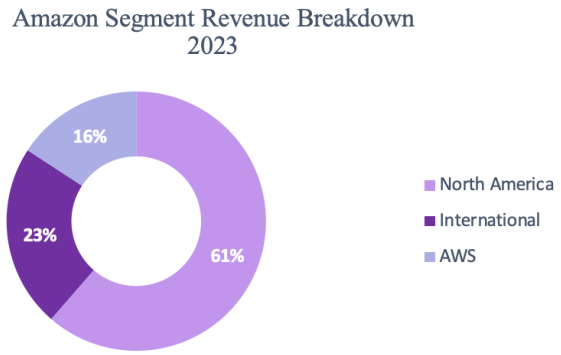
Source: IMF, World Economic Outlook Database October 2023

Figure A2 - Global inflation rate from 2000 to 2023 with forecasts until 2028



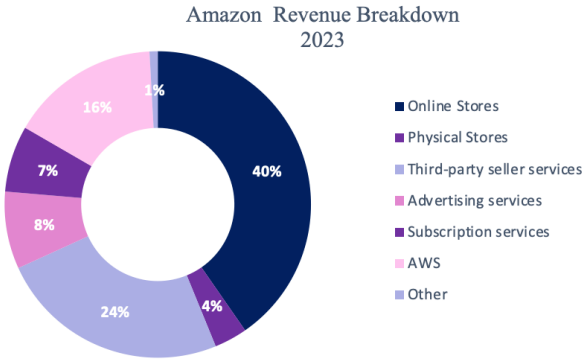
Source: IMF, World Economic Outlook Database October 2023

Figure A3 - Amazon Segment Breakdown



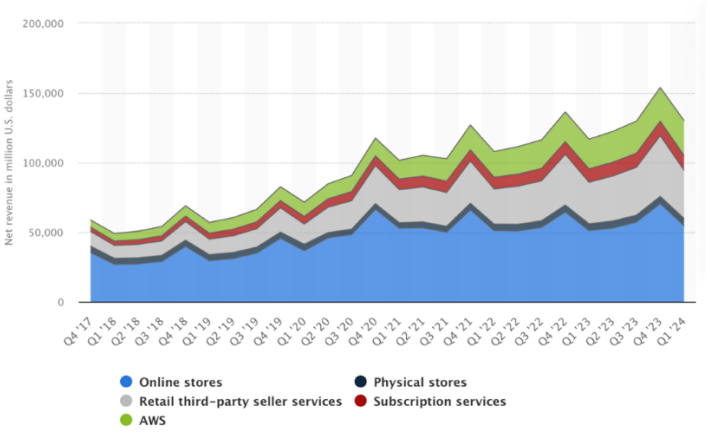
Source: Own Elaboration. Based on Amzn-20230331 (n.d.)

Figure A4 - Amazon Revenue Breakdown



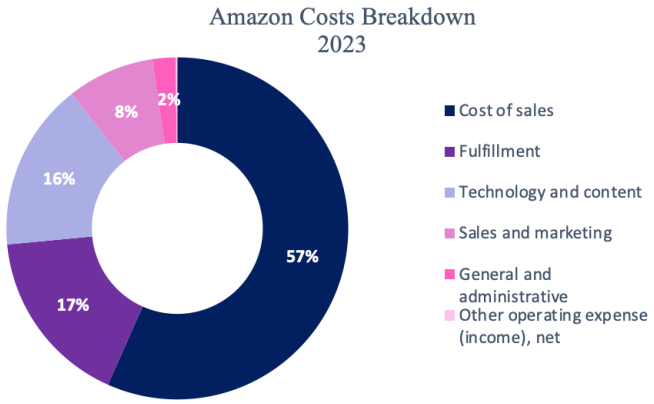
Source: Own Elaboration. Based on Amzn-20230331 (n.d.)

Figure A5 - Amazon Global Net Revenue Growth



Source: Amazon Q1 2024 Earnings Release, page 15. (Amazon: Global Net Product Revenue by Quarter 2024 | Statista, 2024b)

Figure A6 - Amazon Cost Breakdown



Source: Own Elaboration. Based on Amzn-20230331 (n.d.)

Table A1 - SWOT Analysis

Strengths	**Weaknesses**
Strong brand recognition and reputation Technological Innovation Financial Stability Well-established distribution network Large customer base Strong partnerships and collaborations Global presence, with operations in many countries	Market Saturation Regulatory Scrutiny Reliance on Third-Party Sellers Data Security Business model easy to copy Limited customer loyalty Limit product control
Opportunities	**Threats**
Expansion into Emerging Markets Advancements in Technology Diversification of Services Expanding physical stores Planned Entry into Crypto More acquisitions	Strong Competition Economic Uncertainty Technological Disruptions Cybersecurity threats:

Source: Own elaboration

Table A2 - Net sales by Segment growth YoY

Values in millions ($)	2020	2021	2022	2023	Average	Change YoY 2020/2021	Change YoY 2021/2022	Change YoY 2022/2023
Net sales:								
Online Stores	197,346	222,075	220,004	231,872	5.66%	12.53%	-0.93%	5.39%
Physical Stores	16,227	17,075	18,963	20,030	7.30%	5.23%	11.06%	5.63%
Third-party seller services	80,461	103,366	117,716	140,053	20.44%	28.47%	13.88%	18.98%
Advertising services	25,207	31,160	37,739	46,906	23.01%	23.62%	21.11%	24.29%
Subscription services	19,773	31,768	35,218	40,209	28.57%	60.66%	10.86%	14.17%
AWS	45,370	62,202	80,096	90,757	26.39%	37.10%	28.77%	13.31%
Other	1,680	2,176	4,247	4,958	47.15%	29.52%	95.17%	16.74%
Total segment net sales	**386,064**	**469,822**	**513,983**	**574,785**	**14.31%**	**21.70%**	**9.40%**	**11.83%**

Source: Own elaboration

Table A3 - Operating Expenses Growth YoY

Growth YoY Operating Expenses	2021	2022	2023	Average	Change YoY 2020/2021	Change YoY 2021/2022	Change YoY 2022/2023
Operating Expenses:							
Cost of sales	16.73%	6.05%	5.51%	9.43%	16.73%	6.05%	5.51%
Fulfillment	28.36%	12.23%	7.50%	16.03%	28.36%	12.23%	7.50%
Technology and content	31.15%	30.62%	16.95%	26.24%	31.15%	30.62%	16.95%
Sales and marketing	47.91%	29.76%	5.05%	27.57%	47.91%	29.76%	5.05%
General and administrative	32.32%	34.77%	-0.63%	22.15%	32.32%	34.77%	-0.63%
Other operating expense (income), net	-182.67%	1937.10%	-39.27%	571.72%	-182.67%	1937.10%	-39.27%
Total operating expenses	**22.52%**	**12.76%**	**7.21%**	**14.17%**	**22.52%**	**12.76%**	**7.21%**

Source: Own elaboration

Table A4 - Net Working Capital

Values in millions ($)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Net Working Capital	6,348	19,314	(8,602)	7,434	13,267	19,788	28,468	39,934	54,996	74,699	100,397	133,852
Changes in Net Working Capital		*12,966*	*(27,916)*	*16,036*	*5,833*	*6,521*	*8,680*	*11,466*	*15,062*	*19,703*	*25,698*	*33,454*

Source: Own Elaboration

Table A5 - Cash Conversion Cycle

Cash Flow Management ($)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Inventories	23,795	32,640	34,405	33,318	37,541	41,081	44,956	49,195	53,835	58,912	64,468	70,549
Cost of Sales	233,307	272,344	288,831	304,739	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Avg Holding Period	**37.2**	**43.7**	**43.5**	**39.9**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**
Receivables	24,542	32,891	42,360	52,253	51,143	59,712	70,187	83,048	98,909	118,556	142,995	173,530
Sales	386,064	469,822	513,983	574,785	666,579	778,263	914,781	1,082,406	1,289,135	1,545,196	1,863,731	2,261,704
Avg Collection Period	**23.2**	**25.6**	**30.1**	**33.2**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**
Payables	72,539	78,664	79,600	84,981	96,227	105,302	115,233	126,101	137,994	151,008	165,250	180,835
Cost of Sales	233,307	272,344	288,831	304,739	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Avg Payable Period	**113.5**	**105.4**	**100.6**	**101.8**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**
Cash Conversion Cycle	**-53.1**	**-36.1**	**-27.0**	**-28.7**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**

Source: Own elaboration

Table A6 - Investment in PP&E Cash flow Statements

Values in millions ($)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Purchases of P&E	(40,140)	(61,053)	(63,645)	(52,729)	74,904	89,089	101,176	116,137	143,332	171,344	204,996	248,426
% revenue	*10.4%*	*13.0%*	*12.4%*	*9.2%*	*11%*	*11%*	*11%*	*11%*	*11%*	*11%*	*11%*	*11%*

Source: Own elaboration

Table A7 - Capital Asset Turnover

Capital Asset Turnover ($)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Sales	385,964	469,822	513,983	574,785	666,579	778,263	914,781	1,082,406	1,289,135	1,545,196	1,863,731	2,261,704
PPE	113,114	160,281	186,715	204,177	223,847	261,353	307,197	363,489	432,911	518,901	625,869	759,515
Capital Asset Turnover	**3.4**	**2.9**	**2.8**	**2.8**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**

Source: Own elaboration

Table A8 - Profitability Ratios

Profitability Ratios ($)	2020	2021	2022	2023	Change YoY 2020/2021	Change YoY 2021/2022	Change YoY 2022/2023
EBIT	*24,178*	*38,151*	*(5,936)*	*37,557*			
Assets	*321,195*	*420,549*	*462,675*	*527,854*			
ROA	**7.53%**	**9.07%**	**-1.28%**	**7.12%**	*1.54%*	*-10.35%*	*8.40%*
Net Income	*21,347*	*33,368*	*(2,725)*	*30,413*			
Equity	*93,404*	*138,245*	*146,043*	*201,875*			
ROE	**22.85%**	**24.14%**	**-1.87%**	**15.07%**	*1.28%*	*-26.00%*	*16.93%*
Noplat	*21,315*	*33,360*	*(5,936)*	*30,437*			
IC	*206,534*	*305,665*	*329,187*	*369,486*			
ROIC	**10.32%**	**10.91%**	**-1.80%**	**8.24%**	*0.59%*	*-12.72%*	*10.04%*

Source: Own elaboration

Table A9 - EBITDA Evolution

Values in millions ($)	2020	2021	2022	2023
EBITDA	48,079	59,312	54,169	85,515
EBITDA margin (% Revenue)	12.45%	12.62%	10.54%	14.88%

Source: Own elaboration

Table A10 - Net profit Evolution

Values in millions ($)	2020	2021	2022	2023
Net income	21,331	33,364	(2,722)	30,425
Net margin (% Revenue)	5.53%	7.10%	-0.53%	5.29%

Source: Own elaboration

Table A11 - Liquidity Ratios

Liquidity analysis ($)	2020	2021	2022	2023
Current Assets	132,733	161,580	146,791	172,351
Current Liabilities	126,385	142,266	155,393	164,917
Current Ratio	**1.05**	**1.14**	**0.94**	**1.05**
Currrent Assets - Inventories	108,938	128,940	112,386	139,033
Current Liabilities	126,385	142,266	155,393	164,917
Quick Ratio	**0.86**	**0.91**	**0.72**	**0.84**
Cash and Cash Equivalents	42,122	36,220	53,888	73,387
Current Liabilities	126,385	142,266	155,393	164,917
Cash Ratio	**0.33**	**0.25**	**0.35**	**0.44**

Source: Own elaboration

Table A12 - Cash Flow Evaluation

Vallue in millions ($)	2020	2021	2022	2023
Cash flow at the beging of the period	36,410	42,377	36,477	54,253
Net cash provided by operating activities	66,064	46,327	46,752	84,946
Net cash used in investing activities	(59,611)	(58,154)	(37,601)	(49,833)
Net cash used in financing activities	(1,104)	6,291	9,718	(15,879)
Net cash flow	42,377	36,477	54,253	73,890

Source: Own elaboration

Table A13 - Solvency Ratios

	2020	2021	2022	2023
Equity Multiplier	3.44	3.04	3.17	2.61
Debt To Capital	0.71	0.67	0.68	0.62
Interest Coverage Ratio	13.90	13.75	5.17	11.58
Net Debt to EBITDA	3.86	4.15	4.85	2.95

Source: Own elaboration

Table A14 - Capital Structure

Vallue in millions ($)	2020	2021	2022	2023
Book Value of Equity	93,404	138,245	146,043	201,875
Book Value of Debt	227,791	282,304	316,632	325,979
Assets	321,195	420,549	462,675	527,854
Debt to Equity Ratio	2.44	2.04	2.17	1.61

Source: Own elaboration

Table A15 - EBIT Analysis

Condensed Consolidated Statements of Operations
In millions, except per share amounts

In millions ($)	2024	2025	2026	2027	2028	2029	2030	2031
Total net sales	666,579	778,263	914,781	1,082,406	1,289,135	1,545,196	1,863,731	2,261,704
Cost of sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Gross Profit	**333,099**	**413,333**	**515,433**	**645,396**	**810,909**	**1,021,868**	**1,291,046**	**1,635,009**
Depreciation and amortization of property and equipment and capitalized content costs, operating lease assets, and other	51,925	61,757	70,137	80,508	99,360	118,778	142,106	172,212
	69.32%	*69.32%*	*69.32%*	*69.32%*	*69.32%*	*69.32%*	*69.32%*	*69.32%*
Operating Expenses:								
Cost of sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Fulfillment	105,144	121,998	141,553	164,243	190,570	221,116	256,559	297,683
Technology and content	108,087	136,446	172,246	217,438	274,488	346,506	437,420	552,187
Sales and marketing	56,603	72,209	92,118	117,515	149,915	191,248	243,976	311,243
General and administrative	14,434	17,631	21,537	26,308	32,137	39,256	47,953	58,576
Other operating expense (income), net	876	1,000	1,141	1,303	1,488	1,698	1,939	2,213
Total operating expenses	618,623	714,214	827,943	963,819	1,126,823	1,323,153	1,560,531	1,848,598
EBITDA	**99,880**	**125,805**	**156,974**	**199,095**	**261,671**	**340,820**	**445,304**	**585,318**
Operating Income (EBIT)	**47,955**	**64,048**	**86,837**	**118,587**	**162,312**	**222,042**	**303,199**	**413,106**

Source: Own elaboration

Table A16 - Working Capital

Working Capital

Values in millions	2024	2025	2026	2027	2028	2029	2030	2031
Current assets:								
Cash and cash equivalents	69,782	81,474	95,766	113,314	134,956	161,762	195,109	236,772
Marketable Securities	48,589	56,730	66,681	78,900	93,969	112,634	135,853	164,862
Inventories	37,541	41,081	44,956	49,195	53,835	58,912	64,468	70,549
Accounts receivable, net and other	51,143	59,712	70,187	83,048	98,909	118,556	142,995	173,530
Total current assets	**207,055**	**238,997**	**277,589**	**324,457**	**381,669**	**451,864**	**538,425**	**645,712**
Current liabilities:								
Accounts payable	96,227	105,302	115,233	126,101	137,994	151,008	165,250	180,835
Accrued expenses and other	80,471	93,954	110,435	130,671	155,628	186,540	224,995	273,039
Unearned revenue	17,090	19,953	23,453	27,751	33,051	39,616	47,782	57,986
Total current liabilities	**193,788**	**219,209**	**249,121**	**284,523**	**326,673**	**377,165**	**438,027**	**511,860**
Net Working Capital	13,267	19,788	28,468	39,934	54,996	74,699	100,397	133,852
Changes in Net Working Capital	*5,833*	*6,521*	*8,680*	*11,466*	*15,062*	*19,703*	*25,698*	*33,454*

Source: Own elaboration

Table A17 - Inventories, Accounts Receivable, and Accounts Payable calculation for the forecasted years

Cash Flow Management	2024	2025	2026	2027	2028	2029	2030	2031
Inventories	37,541	41,081	44,956	49,195	53,835	58,912	64,468	70,549
Cost of Sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Avg Holding Period	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**	**41.1**
Receivables	51,143	59,712	70,187	83,048	98,909	118,556	142,995	173,530
Sales	666,579	778,263	914,781	1,082,406	1,289,135	1,545,196	1,863,731	2,261,704
Avg Collection Period	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**
Payables	96,227	105,302	115,233	126,101	137,994	151,008	165,250	180,835
Cost of Sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Avg Payable Period	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**	**105.3**
Cash Conversion Cycle	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**	**-36.2**

Source: Own elaboration

Table A18 - Capital Structure

Capital Structure	2023
Number of shares outstanding (in millions $)	10,800
Share price (a.o. 31/12/2023)	151.94
Market Value of Equity	1,640,952
Book Value of Debt	325,979
Debt to Equity Ratio	0.20

Source: Own elaboration

Table A19 - WACC components and calculation

Millions ($)	
Interest Costs	*3182*
Financial Debt	*58,314*
Cost of debt	**5.46%**
Risk free rate	*3.86%*
Beta	*1.1600*
Market Risk Premium	*4.60%*
Cost of equity	**9.19%**
Equity	*1,640,952*
Debt	*325,979*
Equity + Debt	*1,966,931*
WACC	**8.40%**

Source: Own elaboration

Table A20 - Terminal Value

(values in millions $)	2024	2025	2026	2027	2028	2029	2030	2031
EBIT	47,955	64,048	86,837	118,587	162,312	222,042	303,199	413,106
Tax Rate (%)	25%	25%	25%	25%	25%	25%	25%	25%
NOPLAT	35,966	48,036	65,128	88,940	121,734	166,532	227,399	309,830
D&A	51,925	61,757	70,137	80,508	99,360	118,778	142,106	172,212
Changes in NWC	5,833	6,521	8,680	11,466	15,062	19,703	25,698	33,454
CAPEX	74,904	89,089	101,176	116,137	143,332	171,344	204,996	248,426
FCFF	**7,153**	**14,184**	**25,409**	**41,845**	**62,699**	**94,262**	**138,810**	**200,161**
WACC	**8.40%**							
Growth Rate	**2.4%**							
Discounted FCFF	**6,599**	**12,070**	**19,947**	**30,305**	**41,889**	**58,095**	**78,921**	**104,982**
Terminal Value								**3,415,566**
Dicounted TV	**1,791,426**							

Source: Own elaboration

Table A21 - Sensitivity Analysis

	Share Price	WACC				
	189.88	7.4%	7.9%	8.4%	8.9%	9.4%
Perpetual Growth Rate	2.00%	17.38%	4.77%	-5.78%	-14.72%	-22.38%
	2.20%	21.60%	8.18%	-2.98%	-12.39%	-20.42%
	2.40%	26.15%	11.83%	0.00%	-9.93%	-18.36%
	2.60%	31.09%	15.77%	3.19%	-7.30%	-16.17%
	2.80%	36.45%	20.01%	6.61%	-4.51%	-13.85%

Source: Own Elaboration

Table A22 - Amazon Relative Valuation

Company	Country	EV/EBITDA	P/E	P/B
(a. o. Dec 2023)				
Amazon	USA	20.60	75.60	8.30
Walmart Inc.	USA	12.20	25.20	5.20
Lowe's Companies	USA	11.20	15.30	-
Target Corporation	USA	9.50	17.10	5.00
Alibaba Group Holding Limited	CN	6.90	10.00	1.30
eBay Inc.	USA	6.90	8.00	3.70
ETSY Inc	USA	24.30	29.40	-
Alphabet Inc.	USA	16.10	24.80	6.10
salesforce.com, inc.	USA	27.90	102.90	4.60
Oracle Corp	USA	18.80	31.80	83.30
SAP SE	DE	21.20	32.00	4.00
Netflix, Inc.	USA	10.10	45.10	9.20
Roku Inc	USA	-	-	6.40
Ratuken Group Inc	JP	11.20	-	1.20
Spotify Technology AS	LU	-	-	15.10
Standard Deviation		6.93	26.18	22.73
Average + Standard Deviation		21.62	57.24	34.82
Average - Standard Deviation		7.76	4.87	(10.63)
Average Amazon Peers		**14.69**	**31.05**	**12.09**
New average without outliers		**13.79**	**23.87**	**5.62**
Amazon Multiple Equity Value		1,190,499	726,234	1,134,172
Number of shares Outstanding		10,800	10,800	10,800
Amazon Multiple Share Price		**110.23**	**67.24**	**105.02**
Actual Price at 31st Dec 2023		151.94	151.94	151.94
Upside/ Downside		-27.45%	-55.74%	-30.88%

Source: Own elaboration; Data retrieved from (Amazon.com Inc (NASDAQ:AMZN), n.d

Appendix B

Table B1 - Balance Sheet Assets: Historical

In millions ($)

ASSETS	2020	2021	2022	2023
Current assets:				
Cash and cash equivalents	42,122	36,220	53,888	73,387
Marketable Securities	42,274	59,829	16,138	13,393
Inventories	23,795	32,640	34,405	33,318
Accounts receivable, net and other	24,542	32,891	42,360	52,253
Total current assets	132,733	161,580	146,791	172,351
Property and equipment, net	113,114	160,281	186,715	204,177
Operating leases	37,553	56,082	66,123	72,513
Goodwill	15,017	15,371	20,288	22,789
Other assets	22,778	27,235	42,758	56,024
Total non-current assets	188,462	258,969	315,884	355,503
Total assets	**321,195**	**420,549**	**462,675**	**527,854**

Source: Own Elaboration

Table B2 - Balance Sheet Assets: Projections

In millions ($)

ASSETS	2024	2025	2026	2027	2028	2029	2030	2031
Current assets:								
Cash and cash equivalents	69,782	81,474	95,766	113,314	134,956	161,762	195,109	236,772
Marketable Securities	48,589	56,730	66,681	78,900	93,969	112,634	135,853	164,862
Inventories	37,541	41,081	44,956	49,195	53,835	58,912	64,468	70,549
Accounts receivable, net and other	51,143	59,712	70,187	83,048	98,909	118,556	142,995	173,530
Total current assets	155,912	179,285	207,402	241,409	282,760	333,308	395,430	472,182
Property and equipment, net	223,847	261,353	307,197	363,489	432,911	518,901	625,869	759,515
Operating leases	67,088	76,266	87,423	101,055	117,788	138,426	163,998	195,833
Goodwill	21,537	24,484	28,066	32,442	37,814	44,439	52,648	62,868
Other assets	49,601	57,911	68,070	80,543	95,926	114,979	138,682	168,295
Total non-current assets	362,074	420,013	490,756	577,528	684,439	816,745	981,197	1,186,512
Total assets	**517,986**	**599,298**	**698,158**	**818,937**	**967,199**	**1,150,053**	**1,376,627**	**1,658,694**

Source: Own Elaboration

Table B3 - Balance Sheet Liabilities: Historical

In millions ($)

LIABILITIES	2020	2021	2022	2023
Current liabilities:				
Accounts payable	72,539	78,664	79,600	84,981
Accrued expenses and other	44,138	51,775	62,566	64,709
Unearned revenue	9,708	11,827	13,227	15,227
Total current liabilities	126,385	142,266	155,393	164,917
Long-term lease liabilities	52,573	67,651	72,968	77,297
Long-term debt	31,816	48,744	67,150	58,314
Other long-term liabilities	17,017	23,643	21,121	25,451
Total non-current liabilities	101,406	140,038	161,239	161,062
Total Liabilities	**227,791**	**282,304**	**316,632**	**325,979**

Table B4 - Balance Sheet Liabilities: Projections

In millions ($)

LIABILITIES	2024	2025	2026	2027	2028	2029	2030	2031
Current liabilities:								
Accounts payable	96,227	105,302	115,233	126,101	137,994	151,008	165,250	180,835
Accrued expenses and other	80,471	93,954	110,435	130,671	155,628	186,540	224,995	273,039
Unearned revenue	17,090	19,953	23,453	27,751	33,051	39,616	47,782	57,986
Total current liabilities	193,788	219,209	249,122	284,523	326,673	377,165	438,028	511,860
Long-term lease liabilities	92,763	108,305	127,303	150,631	179,399	215,034	259,362	314,745
Long-term debt	69,705	81,383	95,659	113,188	134,806	161,582	194,891	236,508
Other long-term liabilities	29,960	34,980	41,116	48,650	57,942	69,451	83,768	101,655
Total non-current liabilities	192,428	224,669	264,079	312,469	372,147	446,067	538,021	652,908
Total Liabilities	**386,216**	**443,878**	**513,200**	**596,992**	**698,820**	**823,231**	**976,049**	**1,164,768**

Source: Own Elaboration

Table B5 - Balance Sheet Equity: Historical

In millions ($)

Stockholders' equity	2020	2021	2022	2023
Amazon stockholders' equity:				
Preferred stock ($0.01 par value; 500 shares authorized; no shares issued or outstanding)				
Common stock ($0.01 par value; 100,000 shares authorized; 10,757 and 10,898 shares issued; 10,242 and 10,383 shares outstanding)	5	106	108	109
Treasury stock, at cost	(1,837)	(1,837)	(7,837)	(7,837)
Additional paid-in capital	42,865	55,437	75,066	99,025
Accumulated other comprehensive income (loss)	(180)	(1,376)	(4,487)	(3,040)
Retained earnings	52,551	85,915	83,193	113,618
Total Amazon stockholders' equity	93,404	138,245	146,043	201,875
Total liabilities and stockholders' equity	**321,195**	**420,549**	**462,675**	**527,854**

Source: Own Elaboration

Table B6 - Balance Sheet Equity: Projections

In millions ($)

Stockholders' equity	2024	2025	2026	2027	2028	2029	2030	2031
Amazon stockholders' equity:								
Preferred stock ($0.01 par value; 500 shares authorized; no shares issued or outstanding)								
Common stock ($0.01 par value; 100,000 shares authorized; 10,757 and 10,898 shares issued; 10,242 and 10,383 shares outstanding)	109	109	109	109	109	109	109	109
Treasury stock, at cost	(7,837)	(7,837)	(7,837)	(7,837)	(7,837)	(7,837)	(7,837)	(7,837)
Additional paid-in capital	130,929	173,112	228,885	302,628	400,128	529,042	699,490	924,852
Accumulated other comprehensive income (loss)	(3,040)	(3,040)	(3,040)	(3,040)	(3,040)	(3,040)	(3,040)	(3,040)
Retained earnings	150,314	198,861	263,088	348,058	460,472	609,193	805,946	1,066,245
Total Amazon stockholders' equity	270,475	361,205	481,205	639,918	849,833	1,127,467	1,494,668	1,980,329
Total liabilities and stockholders' equity	**656,691**	**805,083**	**994,406**	**1,236,910**	**1,548,653**	**1,950,698**	**2,470,716**	**3,145,098**

Source: Own Elaboration

Table B7 - Income Statement: Historical

In millions ($), except per share amounts	2020	2021	2022	2023
Net Product Sales	215,915	241,787	242,901	255,887
Net Service Sales	170,149	228,035	271,082	318,898
Total net sales	386,064	469,822	513,983	574,785
Cost of sales	233,307	272,344	288,831	304,739
Gross Margin	**152,757**	**197,478**	**225,152**	**270,046**
Depreciation and amortization of property and equipment and capitalized content costs, operating lease assets, and	25,180	34,433	41,921	48,663
Operating Expenses:				
Cost of sales	233,307	272,344	288,831	304,739
Fulfillment	58,517	75,111	84,299	90,619
Technology and content	42,740	56,052	73,213	85,622
Sales and marketing	22,008	32,551	42,238	44,370
General and administrative	6,668	8,823	11,891	11,816
Other operating expense (income), net	(75)	62	1,263	767
Total operating expenses	363,165	444,943	501,735	537,933
EBITDA	**48,079**	**59,312**	**54,169**	**85,515**
Operating Income (EBIT)	**22,899**	**24,879**	**12,248**	**36,852**
Interest Income	555	448	989	2,949
Interest Expense	(1,647)	(1,809)	(2,367)	(3,182)
Other income (expense), net	2,371	14,633	(16,806)	938
Total non-operating income (expense)	1,279	13,272	(18,184)	705
Income (loss) before income taxes (EBT)	**24,178**	**38,151**	**(5,936)**	**37,557**
Benefit (provision) for income taxes	(2,863)	(4,791)	3,217	(7,120)
Equity-method investment activity, net of tax	16	4	(3)	(12)
Net income (loss)	**21,331**	**33,364**	**(2,722)**	**30,425**
Net earnings per share:				
Basic	2.13	3.30	(0.27)	2.95
Diluted	2.09	3.24	(0.27)	2.90
Weighted-average shares used to compute net earnings per share:				
Basic	10,005	10,117	10,189	10,304
Diluted	10,198	10,296	10,189	10,492

Source: Own Elaboration

Table B8 - Income Statement: Projections

In millions ($), except per share amounts	2024	2025	2026	2027	2028	2029	2030	2031
Total net sales	666,579	778,263	914,781	1,082,406	1,289,135	1,545,196	1,863,731	2,261,704
Cost of sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Gross Profit	**333,099**	**413,333**	**515,433**	**645,396**	**810,909**	**1,021,868**	**1,291,046**	**1,635,009**
Depreciation and amortization of property and equipment	51,925	61,757	70,137	80,508	99,360	118,778	142,106	172,212
Operating Expenses:								
Cost of sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Fulfillment	105,144	121,998	141,553	164,243	190,570	221,116	256,559	297,683
Technology and content	108,087	136,446	172,246	217,438	274,488	346,506	437,420	552,187
Sales and marketing	56,603	72,209	92,118	117,515	149,915	191,248	243,976	311,243
General and administrative	14,434	17,631	21,537	26,308	32,137	39,256	47,953	58,576
Other operating expense (income), net	876	1,000	1,141	1,303	1,488	1,698	1,939	2,213
Total operating expenses	618,623	714,214	827,943	963,819	1,126,823	1,323,153	1,560,531	1,848,598
EBITDA	**99,880**	**125,805**	**156,974**	**199,095**	**261,671**	**340,820**	**445,304**	**585,318**
Operating Income (EBIT)	**47,955**	**64,048**	**86,837**	**118,587**	**162,312**	**222,042**	**303,199**	**413,106**
Interest Income	7,912	9,237	10,858	12,847	15,301	18,340	22,121	26,845
Interest Expense	23,823	27,814	32,693	38,684	46,072	55,224	66,608	80,831
Other income (expense), net	829	968	1,138	1,347	1,604	1,923	2,319	2,814
Total non-operating income (expense)	32,564	38,020	44,689	52,878	62,978	75,487	91,048	110,490
Benefit (provision) for income taxes	(2,889)	(2,889)	(2,889)	(2,889)	(2,889)	(2,889)	(2,889)	(2,889)
Equity-method investment activity, net of tax								
Net income (loss)	**77,630**	**99,179**	**128,638**	**168,576**	**222,400**	**294,640**	**391,357**	**520,707**
Net earnings per share:								
Basic	7.53	9.63	12.48	16.36	21.58	28.59	37.98	50.53
Diluted	7.40	9.45	12.26	16.07	21.20	28.08	37.30	49.63
Weighted-average shares used to compute net earnings per share:								
Basic	10,304	10,304	10,304	10,304	10,304	10,304	10,304	10,304
Diluted	10,492	10,492	10,492	10,492	10,492	10,492	10,492	10,492

Source: Own Elaboration

Table B9 – Revenue Projections

Values in millions ($)

Net sales:	2024	2025	2026	2027	2028	2029	2030	2031
Online Stores	245,006	258,883	273,547	289,041	305,413	322,713	340,992	360,306
Physical Stores	21,493	23,063	24,747	26,554	28,493	30,574	32,807	35,203
Third-party seller services	168,682	203,164	244,694	294,714	354,959	427,518	514,911	620,167
Advertising services	57,698	70,972	87,300	107,386	132,092	162,482	199,864	245,846
Subscription services	51,695	66,461	85,446	109,854	141,234	181,577	233,445	300,129
AWS	114,710	144,985	183,250	231,614	292,742	370,004	467,657	591,083
Other	7,296	10,735	15,796	23,244	34,202	50,328	74,055	108,970
Total segment net sales	**666,579**	**778,263**	**914,781**	**1,082,406**	**1,289,135**	**1,545,196**	**1,863,731**	**2,261,704**

Table B10 – Operating Expenses Projections

Values in millions ($)

Operating Expenses	2024	2025	2026	2027	2028	2029	2030	2031
Operating Expenses:								
Cost of sales	333,479	364,930	399,348	437,011	478,226	523,328	572,684	626,695
Fulfillment	105,144	121,998	141,553	164,243	190,570	221,116	256,559	297,683
Technology and content	108,087	136,446	172,246	217,438	274,488	346,506	437,420	552,187
Sales and marketing	56,603	72,209	92,118	117,515	149,915	191,248	243,976	311,243
General and administrative	14,434	17,631	21,537	26,308	32,137	39,256	47,953	58,576
Other operating expense (income), net	876	1,000	1,141	1,303	1,488	1,698	1,939	2,213
Total operating expenses	**618,623**	**714,214**	**827,943**	**963,819**	**1,126,823**	**1,323,153**	**1,560,531**	**1,848,598**

Table B11 – DCF FCFF

(values in millions $)	2024	2025	2026	2027	2028	2029	2030	2031
EBIT	47,955	64,048	86,837	118,587	162,312	222,042	303,199	413,106
Tax Rate (%)	25%	25%	25%	25%	25%	25%	25%	25%
NOPLAT	35,966	48,036	65,128	88,940	121,734	166,532	227,399	309,830
D&A	51,925	61,757	70,137	80,508	99,360	118,778	142,106	172,212
Changes in NWC	5,833	6,521	8,680	11,466	15,062	19,703	25,698	33,454
CAPEX	74,904	89,089	101,176	116,137	143,332	171,344	204,996	248,426
FCFF	**7,153**	**14,184**	**25,409**	**41,845**	**62,699**	**94,262**	**138,810**	**200,161**
WACC	**8.40%**							
Growth Rate	**2.4%**							
Discounted FCFF	**6,599**	**12,070**	**19,947**	**30,305**	**41,889**	**58,095**	**78,921**	**104,982**
Terminal Value								**3,415,566**
Dicounted TV	**1,791,426**							
Enterprise Value	**2,039,252**		189.88					
Cash and cash equivalents	69,782							
Financial Debt	58,314							
Equity Value	2,050,720							
Number of Shares Outstanding as of 31 Dec 2023 (in millions)	10,800							
Target Price	**189.88**							
Actual Price as of 31 Dec 2023	151.94							
Upside/ Downside	24.97%							

Table B12 – Relative Valuation EV/EBITDA

Company	Country	EV/EBITDA
(a. o. Dec 2023)		
Amazon	USA	20.60
Walmart Inc.	USA	12.20
Lowe's Companies	USA	11.20
Target Corporation	USA	9.50
Alibaba Group Holding Limited	CN	6.90
eBay Inc.	USA	6.90
ETSY Inc	USA	24.30
Alphabet Inc.	USA	16.10
Salesforce, Inc.	USA	27.90
Oracle Corp	USA	18.80
SAP SE	DE	21.20
Netflix, Inc.	USA	10.10
Roku Inc	USA	-
Ratuken Group Inc	JP	11.20
Spotify Technology AS	LU	-
Standard Deviation		6.93
Average + Standard Deviation		21.62
Average - Standard Deviation		7.76
Average Amazon Peers		**14.69**
New average without outliers		**13.79**
Amazon EBITDA		85,514
Amazon Multiple EV		1,179,031
Non-Operating Assets		69,782
Non-Equity claims		58,314
Amazon Equity Value		1,190,499
Number of shares Outstanding		10,800
Amazon Multiple Share Price		**110.23**
Actual Price at 31st Dec 2023		151.94
Upside/ Downside		-27.45%

Source: Own Elaboration

Table B13 - Relative Valuation P/E

Company	Country	P/E
(a. o. Dec 2023)		
Amazon	USA	75.60
Walmart Inc.	USA	25.20
Lowe's Companies	USA	15.30
Target Corporation	USA	17.10
Alibaba Group Holding Limited	CN	10.00
eBay Inc.	USA	8.00
ETSY Inc	USA	29.40
Alphabet Inc.	USA	24.80
salesforce.com, inc.	USA	102.90
Oracle Corp	USA	31.80
SAP SE	DE	32.00
Netflix, Inc.	USA	45.10
Roku Inc	USA	-
Ratuken Group Inc	JP	-
Spotify Technology AS	LU	-
Standard Deviation		26.18
Average + Standard Deviation		57.24
Average - Standard Deviation		4.87
Average Amazon Peers		**31.05**
Median Amazon Peers		25.20
New average without outliers		**23.87**
Amazon Net Income		30,425
Amazon Equity Value		726,234
# of shares Outstanding		10,800
Amazon Multiple Share Price		**67.24**
Actual Price at 31st Dec 2023		151.94
Upside/ Downside		-55.74%

Source: Own Elaboration

Table B14 - Relative Valuation P/B

Company	Country	P/B
(a. o. Dec 2023)		
Amazon	USA	8.30
Walmart Inc.	USA	5.20
Lowe's Companies	USA	-
Target Corporation	USA	5.00
Alibaba Group Holding Limited	CN	1.30
eBay Inc.	USA	3.70
ETSY Inc	USA	-
Alphabet Inc.	USA	6.10
salesforce.com, inc.	USA	4.60
Oracle Corp	USA	83.30
SAP SE	DE	4.00
Netflix, Inc.	USA	9.20
Roku Inc	USA	6.40
Ratuken Group Inc	JP	1.20
Spotify Technology AS	LU	15.10
Standard Deviation		22.73
Average + Standard Deviation		34.82
Average - Standard Deviation		(10.63)
Average Amazon Peers		**12.09**
Median Amazon Peers		5.10
New average without outliers		**5.62**
Amazon Book Value		201,875
Amazon EQV Equity Value		**1,134,172**
# of shares Outstanding		10,800
Amazon EQV Share Price		**105.02**
Actual Price at 31st Dec 2023		151.94
Upside/ Downside		-30.88%

Source: Own Elaboration