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## **Equity Research - Microsoft Corp. (MSFT)**

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Master's Degree in Monetary and Financial Economics

Supervisor:

PhD, Paulo Viegas de Carvalho,

Assistant Professor,

ISCTE-IUL - Instituto Universitário de Lisboa

September, 2025



CIÊNCIAS SOCIAIS  
E HUMANAS

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Department of Economic Politics

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## Abstract

The objective of this dissertation is to analyse and value Microsoft Corporation's stock, using comprehensive methodological approaches to yield a fundamental share value and assess investment attractiveness. The study employs the Discounted Cash Flow (FCFF) methodology, scenario analysis, sensitivity analysis, and two multiples-based valuations using fiscal year 2024 data, July 1<sup>st</sup> 2023 to June 30<sup>th</sup> 2024 and trailing-twelve-month data before July 2025, to obtain robust fundamental price estimates. The dissertation develops beyond traditional valuation by examining Microsoft's strategic transformation, particularly mentioning the impact of past mergers and acquisitions as key catalysts for long-term growth in each industry, and evaluation of the established dominant market positions and moats in cloud computing (Azure), enterprise software (Office 365), gaming (XBOX), and emerging artificial intelligence applications (Copilot).

Through the analysed context, this study finds that Microsoft's equity trades below its intrinsic value with moderate upside potential, reflecting strong fundamental performance even while acknowledging current macroeconomic uncertainties, volatile discount rates, and growth expectations. Relative valuation conducted with July 2025 data indicates that the anticipated growth trajectory is being realised and is now reflected in a higher intrinsic share price for Microsoft, compared to the outcome obtained from the initial multiples-based valuation.

The research concluded that Microsoft's upside potential coupled with a controlled downside risk, is underpinned by strong exogenous shields and a deep competitive moat developed by an integrated technological ecosystem, strategic investments in artificial intelligence, cloud infrastructure, and gaming content. However, this investigation also identifies greater valuation complexity arising from the company's diversified technology portfolio and the challenge of quantifying synergies from strategic initiatives on emerging technology investments.

**Keywords:** Microsoft Corporation; Equity; Research; M&A; Valuation

**JEL Classification:** G30; G32



## Resumo

O objetivo desta dissertação consiste na análise e valorização das ações da Microsoft Corporation, concluindo num valor fundamental por ação e a sua atratividade como investimento. A valorização foi efetuada através da metodologia de fluxos de caixa descontados, análise de cenários, análise de sensibilidade e duas avaliações de múltiplos usando dados do ano fiscal de 2024, 1 de julho de 2023 a 30 de junho 2024, e dados dos últimos doze meses prévios a julho de 2025, de forma a obter estimativas robustas de preços. A dissertação expande-se além de uma tradicional valorização, ao examinar a transformação estratégica da Microsoft, mencionando o impacto de fusões e aquisições anteriores como principais catalisadores de crescimento de longo prazo em cada setor, avaliação das posições de mercado dominantes estabelecidas e vantagem competitiva em computação em nuvem (Azure), software empresarial (Office365), videojogos (XBOX) e inteligência artificial (Copilot).

Através do contexto analisado, este estudo conclui que as ações da Microsoft negociam abaixo do seu valor intrínseco, com potencial de sobrevalorização moderado, derivado de um forte desempenho fundamental, que ultrapassa a incerteza macroeconómica atual, as taxas de desconto voláteis e expectativas de crescimento. A avaliação relativa realizada com dados de julho de 2025 indica que a trajetória de crescimento prevista está a concretizar-se e encontra-se agora refletida num preço intrínseco superior das ações da Microsoft face ao resultado obtido na primeira avaliação de múltiplos.

A pesquisa concluiu que o potencial de sobrevalorização da Microsoft e risco de queda controlável, é sustentado por fortes fatores exógenos e a vantagem económica comparativa composta pelo ecossistema tecnológico completamente integrado, investimentos estratégicos em inteligência artificial, infraestrutura para computação em nuvem e conteúdo de videojogos. No entanto, esta investigação também identifica a complexidade adicional de avaliação de uma empresa com um portfólio diversificado de tecnologia e do desafio de quantificar sinergias de iniciativas estratégicas como os investimentos em tecnologia emergente.

**Palavras-Chave:** Microsoft Corporation; Equity; Research; M&A; Valuation

**Classificação JEL:** G30; G32



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## Glossary

**AGI** – Artificial General Intelligence

**AI** – Artificial Intelligence

**$\beta$**  – Beta

**Bn** – Billion

**CAGR** – Compound Annual Growth Rate

**CapEx** – Capital Expenditures

**CAPM** – Capital Asset Pricing Model

**CEO** – Chief Executive Officer

**CPI** – Consumer Price Index

**CRM** – Customer Relationship Management

**D&A** – Depreciation and Amortization

**DCF** – Discounted Cash Flow

**DDM** – Discounted Dividend Model

**\$** – Dollar

**EBIT** – Earnings Before Interest and Taxes

**EBITDA** – Earnings Before Interest, Taxes, Depreciation, and Amortization

**ECB** – European Central Bank

**EPS** – Earnings Per Share

**EQV** – Equity Value

**ERP** – Enterprise Resource Planning

**EU** – European Union

**EV** – Enterprise Value

**FCF** – Free Cash Flow

**FCFE** – Free Cash Flow to Equity

**FCFF** – Free Cash Flow to the Firm

**FRED** – Federal Reserve Economic Data

**FY** – Fiscal Year

**GDP** – Gross Domestic Product

**G** – Growth Rate

**IaaS** – Infrastructure as a Service

**IMF** – International Monetary Fund

**IPO** – Initial Public Offering

**MSFT** – Microsoft

**M** – Million

**NOCF** – Net Operating Cash Flow

**NPV** – Net Present Value

**NWC** – Net Working Capital

**OECD** – Organisation for Economic Co-operation and Development

**OEM** – Original Equipment Manufacturer

**P&L** – Profit and Loss Statement

**P/B** – Price-to-Book

**P/E or PER** – Price-to-Earnings Ratio

**PaaS** – Platform as a Service

**PV** – Present Value

**R&D** – Research and Development

$R_e$  – Return on Equity by investors

$R_m$  – Return on the Market

**ROA** – Return on Assets

**ROE** – Return on Equity

$R_f$  – Risk-Free Rate

$R_p$  – Risk Premium

**S&P** – Standard and Poor's

**SaaS** – Software as a Service

**SEC** – Securities and Exchange Commission

**T** – Tax Rate

**T-Bill** – Treasury Bill

**TNW** – Tangible Net Worth

**US** or **USA** – United States

**USD** – United States Dollar

**WACC** – Weighted Average Cost of Capital

**WC** – Working Capital

**YoY** – Year on Year

**YTM** – Yield to Maturity

## Introduction

Economies and societies worldwide are continually confronted with complex problems. By nature, people apply methods and knowledge to create tools, systems, and processes that address these challenges and improve living standards. In its broadest sense, technology is the embodiment of solutions to our ever-evolving environment, encompassing both tangible and intangible advances that improve efficiency and quality of life. Given this crucial role, it is a matter of public interest to contextualise and understand what is driving innovation and the resulting economic transformation. As a concept, Technology has evolved to become a key economic driver due to its profound ability to generate value. As such, technological companies are now seen as the forefront engines of innovation, reshaping the fabric of economies, industries, businesses, and individual lives, while exerting a transformative influence on factors like politics, education, and social behaviour.

In this context, Microsoft emerges as an interesting research and valuation subject due to its compelling status as a global technology leader with a significant market importance and a corporate strategy positioned to drive economic development. Microsoft illustrates both the practical and theoretical dimensions of technology's influence on value creation, in the 21st century, by undergoing one of the most significant and complex business model transformations in corporate history, pivoting from a traditional software licensing company to a cloud-first, AI-powered service offering, providing a unique case study for bridging theoretical knowledge with the practical application of valuation methodologies.

This dissertation provides an in-depth analysis and valuation of Microsoft Corporation (MSFT), beginning with a rigorous literature review covering the analytical tools needed for this study, starting with valuation frameworks, nuances of assumption parameters, and the impact of mergers and acquisitions. Subsequently, the company will be situated by a detailed background of its business profile, its strategic evolution, operating segments, acquisitions, and the overall business model transformation. To situate the competitive environment around the group, sectoral trends and industry outlooks are explored alongside the overlying macroeconomic forces, followed by an analysis of Microsoft's relative stock performance and competitive positioning. The culmination of this research is an extensive valuation section composed by a DCF model, namely the Free Cash Flow to the Firm approach, underpinned by a bull and bear scenario and sensitivity analyses to test the robustness of the results, and a relative valuation (multiples) method. Emphasis is placed on justifying key assumptions and peer choices against both academic and industry best practices.

Finally, the dissertation synthesises the valuation outcomes and investment recommendations to provide actionable insights for academics, investors, and business strategists, while identifying limitations and avenues for future research.



# 1. Literature Review

## 1.1. Introduction to Valuation

A major part of this work aims to fairly determine the value of a company, which is assessed through valuation and the source of the valuing assumptions. Valuation is an interesting topic that consists of an estimate of the actual value of an asset, whether it is an investment, company, or other. The study and purpose of valuation lies in the nature of the successful investing theory, where an investment decision is made on a value-added basis; this being, an investor who acquires a certain asset perceives that there is a profit to be made on the acquired asset.

Damodaran (2006) considers valuation as “the heart of finance”, where the concept of an estimate of value provides meaningful insight for investment decisions in several roles of finance, such as corporate finance, portfolio management, studying market efficiency, and analysis of mergers and acquisitions.

Although valuation models are perceived as objective, analysts and investors continue to develop models backed by reality, where the actual price of an asset is justified by the cash flow that it's projected to generate. Damodaran (2006) concluded that there are three main approaches to valuation: Discounted Cash Flow valuation, being the method more accurately depicted in this paper, as it fundamentally measures asset value according to the projected cash flow generation; Liquidation and Accounting valuation, focuses on valuing assets purely on book value; Relative valuation, measures the value of an asset by comparing it to similar assets.

## 1.2. Discounted Cash Flow (DCF) Model

The discounted cash flow (DCF) valuation technique, widely used and preferred by analysts, is the one method that more closely sits at the epitome of what we describe as value, as it measures the present value of expected cash flows adjusted to a discount rate that is commensurate with the investor's risk target. The DCF model follows the approach below:

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

where,  $n$  = Life of the asset;  $CF_t$  = Cashflow in period T;  $r$  = Discount rate reflecting the risk associated with the cashflow estimate.

Encompassed within the DCF model, academia demonstrates that there are several fundamental methodologies, such as the Free Cash Flow to Firm (FCFF) and the Free Cash Flow to Equity (FCFE). Each employed to a distinct perspective, the FCFF to overlook the valuation of the firm and the FCFE to determine the fair value of the company's stock.

### 1.2.1. Free Cash Flow to Firm (FCFF)

Also known as the entity DCF model (Koller et al. 2010), FCFF acts as a pivotal measure of a company's intrinsic value. It originates from the deduction of capital expenditure (CapEx) and working capital needs of the firm from the cash inflow of its operations.

$$FCFF = EBIT(1 - t) + Depreciation - CapEx - \Delta Working Capital \quad (2)$$

FCFF is often utilised and mentioned as an unlevered cash flow, as it does not take into account any benefits from debt drawing (Damodaran 2006). That being said, FCFF is best suited for firms with a volatile leverage profile, where the uncertain and unstable debt repayments/issuances are not accounted for, which then creates higher certainty in the challenging choice of assumptions for models that rely on the cost of equity.

### 1.2.2. Free Cash Flow Discount Rate

As mentioned before, it is imperial to find a discount rate that fits the cash flow model chosen, determining such is one of the most important steps in valuation, as it considers the risk associated with the historic volatility.

### 1.2.3. WACC

The Weighted Average Cost of Capital (WACC) is a metric that outputs a rate of return derived from the blend of a firm's cost of equity and its after-tax cost of debt, weighted proportionally to their contributions to the firm's capital structure. It is expressed:

$$WACC = \frac{Equity}{Equity + Debt} \times R_e + \frac{Debt}{Equity + Debt} \times R_d \times (1 - t) \quad (3)$$

With Equity (E) being the market value of the equity, Debt (D) being the market value of debt,  $R_e$  being the cost of equity,  $R_d$  being the cost of debt that the metric complements by deducting the debt servicing expenses at the corporate tax rate  $(1 - t)$ .

Ultimately, WACC is designated as the appropriate discount rate for FCFF, as it comprises the cash flow to all providers of capital, both equity and debt holders, before any capital structure decisions (Damodaran, 2012).

### 1.2.4. Cost of Equity ( $R_e$ )

Corporate finance literature defines cost of equity as the desired rate of return pursued by equity investors. In order to compute this rate of return, the Capital Asset Pricing Model (CAPM) will be utilised. CAPM is composed of three variables that must be accessed these being the risk-free rate, the market risk premium, and the company beta.

$$R_e = R_f + \beta_L \times R_p \quad (4)$$

Risk-free rate ( $R_f$ ) is defined by the actual rate of return that is always equal to the expected return (Damodaran, 2012). The concept of being risk-free is connected to the impossibility of default, which is only achieved by sovereign governments that run firms or issue securities, and is considered to be “risk-free” as the diminished/nil credit risk is backed by the constant availability of monetary production in order to meet funding obligations. Academia generally assumes the yield from highly rated sovereign treasury securities (treasury bonds or bills) as a proxy for a risk-free rate.

Market Risk Premium ( $R_p$ ) encompasses the estimated return of the stock market ( $R_m$ ) compared to the return of a risk-free asset, providing a generalised benchmark for a reasonable estimate of the cost of equity for individual companies (Koller et al., 2015).

Beta ( $\beta$ ) is a coefficient that measures the sensitivity of a security’s return to the return of the aggregate stock market (typically represented by a benchmark index, such as the S&P 500). A beta of 1 indicates that the security’s price moves alongside the market, while a beta larger than 1 suggests higher volatility and a beta lower than 1 suggests lower volatility (Bodie et al., 2021).

$$\beta_u = \frac{COVAR(R_f, R_m)}{VAR(R_m)} \quad (5)$$

It is important to point out that if a company has outstanding debt, the computed Beta should include the incremental risk arising from the leveraged nature into the intrinsic systematic risk of the company’s business, obtaining the levered beta (Fernandez, 2007). The levered Beta ( $\beta_L$ ) is obtained according to the Hamada formula (1972):

$$\beta_L = \beta_u \times \left( 1 + \left( \frac{Debt}{Equity} \right) \times (1 - t) \right) \quad (6)$$

### 1.2.5. Cost of Debt ( $R_d$ )

Capital can also be raised through lending, where lenders/creditors provide funding to firms at an additional cost, which fundamentally translates to a premium derived from risk exposure. Globally, creditworthiness proliferates as a determining factor for the cost of debt, due to its role in risk assessment that dictates the credit spread/ability to repay. High creditworthiness regularly translates to a lower cost of debt; such companies are assessed by rating agencies as investment-grade companies. The investment grade characterization is given to corporations whose financial silhouette or issued debt securities display a credit rating—BBB- (S&P and Fitch) and above or Baa3 (Moody’s) and above—that signifies a low to moderate probability of default, reflected by a strong and resilient financial profile, consistent cash flows and robust creditworthiness (Brealey et al., 2020). By presenting a relatively low risk of default, the cost of debt yield for these corporates is usually proxied to the

return rate of the firm's outstanding bonds or, as typically expressed, their yield to maturity, as their probability of default is very low (Koller et al., 2015).

Alternatively, non-investment grade corporates, distinguished by their "high yield" bonds and not as strong credit profile, carrying a rating of BB+ or lower (S&P and Fitch) or Ba1 or lower (Moody's), have an increased probability of default. Thereby, these companies frequently possess a different debt portfolio, incorporating other debt instruments that could carry increased interest and consequently a higher cost of debt. Computing such cost of debt can be achieved either by estimating the company's target capital structure (Debt/Equity), as the cost of debt can be inferred to standardised levels in the operating industry, or simply by the quotient of total interest expenses by the firm's outstanding debt.

### 1.3. Enterprise Value (EV)

In the process of valuing a company, the entire worth of its business will be assumed, which, under a DCF framework, requires the analyst to forecast and discount cash flows indefinitely. As a solution to such limitations and impracticality, EV calculation splits the company's cash flows into two chapters: I) Forecasted cash flows over a determined period – projection of the firm's cash flow based on operational assumptions during a finite period. II) Terminal value (TV) – value of all cash flows beyond the forecasted period.

As such, the enterprise value is the sum of these two components discounted to the WACC of the firm.

$$EV = \sum_{t=1}^n \left( \frac{FCFF_t}{(1+WACC)^t} \right) + \left( \frac{TV_n}{(1+WACC)^n} \right) \quad (7)$$

Where:

$FCFF_t$  = Free cash flow to the firm in year t during the forecast period (t=1 to n).

WACC = utilised discount rate.

$TV_n$  = Terminal value, calculated at the end of the forecast period (year n).

### 1.4. Terminal Value

Terminal value (TV) captures the long-term value/potential of a business, which typically begins after the period of forecasted cash flows, by assuming a constant growth rate (perpetuity model) or the business disposal at a multiple of a financial metric (exit multiples). Koller et al. (2015) emphasise the sensitivity of the concept and the importance of consistency while considering assumptions, as the terminal value can sometimes represent the largest part of the firm's valuation.

The most common approach to estimate the TV is through the constant growth model, Nissim (2019) notes that the perpetuity model is favoured by academics and analysts as it provides a "clean,

closed-form solution”, avoiding the necessity of inputs utilized in relative valuations (e.g. EV/EBITDA), thus keeping the model consistent with the standards of a DCF (by discounting the company’s free cash flow after the forecasted period at the difference between WACC and the growth rate ( $g$ )).

$g$  (Perpetuity Growth Rate): Is the constant rate at which the company’s free cash flows are assumed to grow indefinitely in the terminal period. Fernandez (2019) discusses that the terminal growth rate, for mature and developed markets, should reflect a reasonable growth component set close to long-term macroeconomic conditions, such as inflation or nominal GDP growth (e.g., 1–3%).

Constant Growth Model or Gordon Growth Model (hereinafter GGM),

$$Terminal\ Value = \frac{FCFF_{N+1}}{WACC - g} \quad (8)$$

Where:  $FCFF_{N+1}$ : Free cash flow to the firm in the first year after the forecast period (i.e., year  $N + 1$ ). To calculate it, you take the free cash flow in the final year of the forecast period ( $FCFF_N$ ) and grow it by the perpetuity growth rate ( $g$ )

$$FCFF_{N+1} = FCFF_N \times (1 + g) \quad (9)$$

## 1.5. Equity Value (EQV)

Lastly, in the process of the DCF, which outputs the total value of the firm to both its investors and lenders, it is Important to understand the byproduct of the firm's claims priority, the equity value, which is the incorporation of the effects of subordination within the firm’s value.

Equity value provides an estimate of the shareholders' worth, bridging the gap between the valuation of the entire firm and the value available to equity holders, making it a valuable metric for investors as it could support an investment narrative, M&A activity, or strategic corporate decisions. Equity value is achieved by subtracting the net debt, accomplished by deducting cash & equivalents from the total booked value of debt, from Enterprise Value, offering a realistic view of what shareholders can expect to claim (Brealey et al. 2020).

$$Equity\ Value = Enterprise\ Value - Net\ Debt \quad (10)$$

With,

$$Net\ Debt = Total\ Debt - Cash\ \&\ Equivalents \quad (11)$$

Equity value per share can be obtained by dividing the equity value of the firm by the number of outstanding shares.

## 1.6. Multiples Method

Multiples method, also known as relative valuation or peer analysis, aims to discover the value of a company by comparing financial ratios between similar firms, using multiples derived from market prices to establish standardised worth (Fernandez, 2023). The extensive utilisation of relative valuation is underpinned by its conceptual simplicity, as it is known for its accessibility to both professionals and customers/clients, driven by the significantly lower number of theoretical assumptions compared to DCF valuations (Damodaran 2012). Due to the method's broadly acceptance of peer assumption characteristics, Fernandez (2023) debated that its practical application is quite limited on a singular basis, concluding that the valuation result via the multiples method could be highly debatable due to the theory of recognizing that there are no two identical firms and mispricing due to volatile market conditions, euphoria or pessimism, that helps to create disparity in the wide range of values utilized – "dispersion". However, Fernandez suggests that the method would be better off in a secondary role in the valuation process, suggesting its use as a comparative tool after primary methods like the DCF. Nevertheless, Fernandez also proposes the adjustment of the PER to the effects of the economic cycle, allowing for less distorted results, the rationale being that unadjusted earnings could have benefited from overvaluations derived from economic booms (low PER due to high earnings) or undervaluation derived from recessions (high PER due to low earnings).

Ultimately, the multiples approach is cemented by the efficient market hypothesis, where similar assets conceptually trade at similar prices in efficient markets, Bhojraj et al. (2022). As Penman (2023, p.76) articulates, "relative valuation assumes that markets correctly price peer companies on average, allowing analysts to estimate a firm's value based on how the market prices comparable entities".

### 1.6.1. Peer Group Selection

In order to grant accuracy within the multiples framework, the appropriate peer selection should consider operating industry, business model similarity, growth drivers, profitability, and risk profiles.

Alford (1992) found that industry classification combined with key financial measures (e.g., return on equity, leverage, and asset base) produces more accurate estimates than broader market comparisons. Such research was empirically corroborated by Liu et al. (2022) across a general analysis of multiple performances across industries and time periods. Finding that "earnings-based multiples generally outperform book value and revenue multiples in valuation accuracy, with forward-looking P/E ratios demonstrating superior performance compared to trailing metrics". This conclusion underscores the importance of matching appropriate multiples to specific valuation contexts.

## 1.7. DCF vs Multiples

Damodaran (2005) argues that while DCF offers theoretical rigour and explicit consideration of value drivers, it requires numerous long-term assumptions and remains highly sensitive to terminal value calculations. Multiples, while conceptually simpler and directly reflective of current market sentiment, implicitly incorporate market biases and cyclicalities. Empirical research by Kaplan and Ruback (2018) demonstrates that DCF valuations exhibit slightly superior accuracy to multiple-based approaches in leveraged transaction contexts. However, Lie and Lie (2021) find that multiples often produce more accurate valuations than DCF models when applied to companies with stable growth and business profiles.

In practice, as emphasised by Rosenbaum and Pearl (2020), equity researchers typically employ both approaches as complementary methodologies. Multiples provide market context and valuation benchmarks, while DCF offers insight into fundamental value drivers and scenario analysis capabilities. This integrated approach leverages the analytical rigour and practical utility of each methodology while mitigating their individual limitations.

## 1.8. Mergers and Acquisitions

Extensively documented in literature, mergers and acquisitions (M&A) stand as an industry staple for their capacity to bolster revenue growth, while also maintaining reputation as a deterrent for sustainable value creation, where transactions that occur on the premise of improved efficiency of resources and operational synergies often fall under expectations due to misaligned objectives or post-acquisition/merger complexities. Nevertheless, M&A continues to be a corporate finance strategy that is strategically advantageous for businesses that would capitalise on the reallocation of their assets or in the change of corporate strategy, making it a rapid way to create growth opportunities (Koller et al., 2020).

These transactions can be split into different classifications and structures. Damodaran (2012) identifies four distinct types: mergers, consolidations, tender offers, and acquisitions of assets.

In a merger, the target firm is absorbed by the purchaser to operate under its name, whereas a consolidation results from the merger of both counterparties into a newly formed company. Tender offers consist of a proposed purchase of a target firm via an offer on its outstanding shares at a pre-determined price, with the outcome based on shareholder acceptance. Whilst a successful offer leads to control and potential merger, rejection preserves the target's independence, often reflecting a valuation dispute (Bruner, 2004). Asset acquisitions, meanwhile, entail the selective purchase of a target's assets, allowing the acquirer to gain specific resources without assuming full ownership or control of liabilities (Damodaran, 2012).

In a sense, M&A has 3 performance outcomes, all based on the shareholder return: value conserved, value created, and value destroyed (Bruner, 2004). Where value conserved corresponds to the break-even of the shareholders' investment expectations (e.g., return rate = desired rate—10%), while value created and destroyed resemble positive (return rate > desired rate) and negative (return rate < desired rate) developments, respectively, of the desired investor rate.

### **1.8.1. Ownership and Control**

In M&A, it is essential to characterise the target takeover of ownership and control as it underpins the structure, execution and valuation of these transactions. Ownership refers to the equity stake owned by shareholders of a company. In a merger, it is redistributed proportionally as the firms conjoin into a new entity, whereas in an acquisition, the ownership of shares is transferred to the acquirer, which purchased a majority stake of the target firm's shares. The change of ownership is essential to valuation as the price paid for such defines the transfer value of ownership, via stock, cash, or mixed transactions. Control is tied to the ability to direct a company's strategy and operations, obtained with the ownership of the majority of voting shares (e.g., 51% or more), a factor that distinguishes acquisitions from passive investments (minority interest).

Control is often chased in acquisitions, where the buyer seeks to command the future of the target firm, with the transaction motivation deriving from multiple anticipated synergies: economies of scale and scope, vertical integration, increase of market share, increased product/market knowledge/expertise, improvement of operational efficiency and benefits related to asset diversification which includes increased borrowing capacity and tax savings (Berk & DeMarzo, 2017). It is also important to denote that the chase to obtain control over the target firm, e.g. purchasing majority of voting rights, is often met with a control premium, described by Damodaran (2012) as the intangible economic value of decision authority over a company and anticipated synergies with the "Value of control = Value of the firm, optimally managed – Value of firm with current management".

Damodaran (2012) also argues that overestimating synergies or misjudging the target's intrinsic value can inflate control premiums, leading to overpayment and subsequent value destruction for acquirers—a risk corroborated by Bruner's (2004) survey of M&A outcomes, finding that acquirer returns on overvalued targets often fluctuate between neutral or negative.

### **1.8.2. M&A Transaction Types**

These transactions can vary in different forms, each defined by the strategic intent, execution method/terms, and relationship between corporates. The primary types of acquisitions are:

Horizontal acquisition – occurs when the target company and acquirer are both enrolled in the same industry, acting as competitors. Valuation thesis around these types of deals investigates factors like an increase in market position, reduction of competition and cost savings.

Vertical acquisition – occurs when an acquirer purchases a firm inserted in a different stage of the production/distribution process of its industry. Pricing of deals hinges on the added value of integration benefits, refinement of operations and overall economies of scope.

Conglomerate acquisitions - involve the incorporation of a company in an unrelated industry, often to diversify revenue streams or reduce risk. Pricing of these types of deals is mostly related to standalone cash flows, as synergies are effectively absent. Bruner (2004, p.75) concluded that “the key strategic driver of profitability has less to do with focus and relatedness and more to do with knowledge, mastery, and competencies”.

### **1.8.3. M&A Motives**

Understanding the key factors that drive M&A and influence its success is key to grasping the strategic decision behind every deal. As such, literature points out that the motives for M&A could be either commercial or financial:

Commercial motives: I) Cost efficiency gains, where operating costs benefit from economies of scale, scope, or just apparent efficiency gains— improved management. II) Revenue synergies, companies pursue opportunities to expand to new geographies, markets, or complement their product portfolio, gaining a new customer base and additional growth opportunities. III) Enhancement of market position, acquisition of a homogenous company inserted in the same product market, could allow disruption or suppression of market competitiveness to deliberately increase market share. IV) Change of growth trajectory, M&A can be utilised to shift a company’s growth strategy by either pivoting their business strategy or by capitalising on inorganic growth opportunities. V) Acquisition of R&D or technological capabilities, the motive is often driven by the desire to obtain cutting-edge technologies and specialised skills.

Financial Motives: I) Reduction of cost of capital— advantageous cost of debt achieved via adjusted capital structure, higher percentage of debt in capital structure. II) Reduced cost of equity, softened risk profile due to diversification of business, allowing for a reduced equity risk premium. III) Improvement of financial metrics, usage of tax shields and surplus funds.

#### **1.8.4. Synergies**

Synergies have been a fundamental principle of corporate finance literature since Ansoff (1965) provided one of the earliest formal definitions of synergy with the “2+2=5 effect”, advocating that the combination of corporate entities creates something further than the sum of their stand-alone value. More recently, DePamphilis (2019) has classified synergies into operating, financial, and strategic categories. Operating synergies (e.g., economies of scale) are differentiated from financial synergies through the augmentation of revenue and cost reduction, while the latter develops through improved capital structure and tax efficiencies (Damodaran, 2005). Strategic synergies are created via successful restructuring/repositioning linked to a change in regulatory framework or technological advancements, and capability transfer between incorporated firms.

Damodaran (2005) reiterates that synergies are critical to justifying the premiums often observed in M&A transactions, proposing that their valuation requires rigorous estimation of potential incremental cash flows, noting the realisation of synergies is far from guaranteed. Bruner (2004) contends that while synergy potential is frequently cited in deal announcements, empirical evidence reveals a mixed record, with many acquirers struggling to translate projected benefits into tangible gains, particularly in conglomerate acquisitions where synergies are virtually non-existent due to unrelated operations.

Ambrosini et al. (2010) concluded that acquirers should clearly identify the potential sources of added value after the acquisition, clarification of organizational structure and culture and thorough examination of potential conflicts between the outstanding organizational and capability requirements, leading to a realistic analysis of the value potential for a target acquisition providing somewhat of a clear and basis for the decision of investors seeking to allocate funds.

Empirical evidence has shown that the quantification of synergies can be performed by summing the value of the acquirer firm and the target firm, each independently, and comparing it to the value of the combined company; if the combined company has a greater value than the conjunction of both the individual companies, synergies have occurred (Damodaran, 2012).

#### **1.8.5. Deal Terms**

Each transaction’s risk-to-reward profile is deeply influenced by the contractual structure of its deal. Payment structuring in a transaction is key as its influence is not only on the acquirers’ balance sheet but also on the overall investor confidence, laying a foundation for the overall medium to long-term strategy of the company. Bruner (2004) studied that cash deals, with tight conditions, signal confidence and lessen uncertainty about the post-deal integration with the disadvantage of amplified financial risk; meanwhile, stock deals defer risk by aligning interests between parties at the cost of possible investor share dilution. Hybrid deals with earnouts bridge valuation gaps between parties on future

expectations (Rosenbaum and Pearl, 2013), as an earnout defers part of the agreed payment contingent on performance-related targets (e.g., EBITDA or Revenue targets).

#### **1.8.6. Intrinsic Value and Premium**

Premium, as a concept, quantifies the excess of the offer price over the target's valuation — market value before deal-related speculation. Rosenbaum and Pearl (2013) concluded that for the analysis of paid premiums, “historical transaction data from comparable deals are aggregated to establish a benchmark range”. Bruner (2004) notes that premiums typically vary by industry and deal type, with averages often cited between 20 and 40% in a competitive sector like technology. Inside the quantification of a premium, key market-based valuation multiples are used —such as price-to-earnings (P/E) or enterprise value-to-EBITDA (EV/EBITDA)—to ensure the premium aligns with peer transactions (Koller et al., 2020).

Bruner (2004) also suggests that acquiring firms tend to have their equity price perform negatively or relatively neutral in the short term, as the announcement of activity brings concern factors like overpayment or integration challenges. In contrast, the target firm shareholders usually enjoy significant gains, with the adjacent stock price, more often than not, surging to premiums of double digits (>10%). M&A success follows a realistic valuation, clear corporate strategy and rationale and rigorous execution.



## **2. Company Background and Business Profile**

Over the past several years, technological companies have led the way in terms of value creation, with their share price experiencing quick uprisers and high uncertainty about their tangible value. This project seeks to investigate the industry specifics, business plan, and how to contextualise the operating environment of Microsoft as a leading player in the technology industry, and how it is expanding to other segments.

### **2.1. Company Description - Microsoft Corporation**

Microsoft Corporation (Microsoft, Company or Group), headquartered in Redmond, Washington, in the United States, was established in 1975 by Bill Gates and Paul Allen with a 50/50 ownership stake. Renowned for developing, licensing, and supporting a diverse portfolio of software, services, and devices. Microsoft has been a publicly traded company in the NASDAQ under the ticker “MSFT” since 1986, where its IPO priced the company at approximately \$777 million with a price per share of \$21, in the present day (May 2025) its market capitalization stands at over \$3 trillion, making it the second largest corporate in the world, by market cap, behind NVIDIA (NVDA).

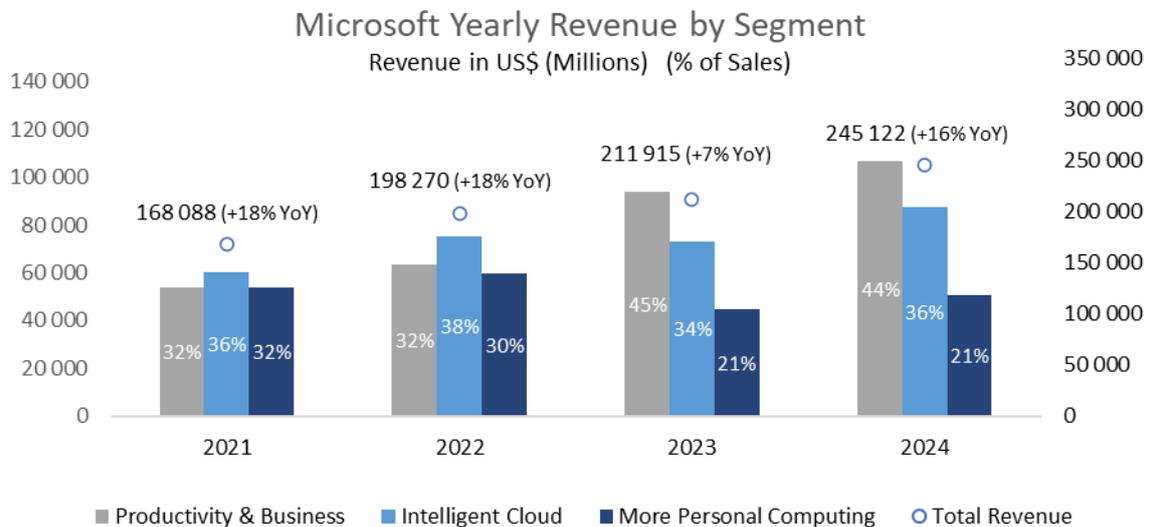
### **2.2. Business Model**

Since its establishment, Microsoft’s vision has remained roughly unchanged, intending to push the potential of its end customers via technological solutions, going from “a computer on every desk and in every home” by Bill Gates and Paul Allen, to Steve Ballmer in 2002, “to enable people and businesses throughout the world to realise their full potential”. Since 2015, with the instauration of Satya Nadella as CEO for the group, Microsoft’s mission has evolved “to empower every person and every organisation on the planet to achieve more”.

The company started its operations by providing software solutions (programming languages and operating systems) to personal computing products, to now, piloting cloud computing solutions with Azure and AI transformation, with its own AI platform (Copilot), employing a group worldwide headcount of about 228,000 people as of June 30th, 2024, with presence on 190 countries (Microsoft, 2024).

Over the last decade (2010s), the group had its business model pivot from a pure software licensing to a model centred on cloud computing and subscription services. Currently, their business products target the broad technological market serving both businesses and consumers of operating systems, productivity applications, cloud services, video-game consoles and related hardware.

Microsoft's FY24 operations totalled \$245 billion in revenue and are essentially split into 3 large segments: i) Productivity and Business Processes (44% of sales); ii) Intelligent Cloud (36%); iii) More Personal Computing (21%).



**Figure 2.1- Microsoft Yearly Revenue by Segment. Source: Own work (2025)**

Geographically, revenue derives mainly from the US market, encompassing 51% of its FY24 revenue, while the remaining 49% derives from the rest of the world (Microsoft, 2025).

## 2.3. Operating Segments

### 2.3.1. Productivity and Business Processes

Segment is based on the offering of products and services related to productivity, communication, and information services. Inside this segment, the following sub-segments are included: i) Office Commercial, ii) Office Consumer, iii) LinkedIn, and iv) Dynamics (ERP) solutions.

- I) Office Commercial, holds all the licensing rights and subscriptions of Office 365 solutions for organisations such as Microsoft Office, Word, Excel, PowerPoint, Outlook/Exchange, SharePoint, Teams, and Copilot for Microsoft 365. Office consumer includes Microsoft 365 consumer subscriptions and Office licensed on-premises.
- II) LinkedIn, a free networking platform linked to career management and professional communication. Revenue is generated through monetised solutions, such as Talent Solutions, Marketing Solutions, Premium Subscriptions, and Sales Solutions.
- III) Dynamic Solutions (Dynamics) is composed of enterprise resource planning (ERP) and customer relationship management (CRM) products, which are essentially cloud-based applications to improve business automation and data engagement.

Each sub-segment suffers some sort of competition. Office competitors include software and global application vendors, such as Apple, Cisco Systems, Google, Meta, Proofpoint, Slack, Symantec, and

Zoom. LinkedIn has no clear direct competition in terms of platform; nevertheless, professional networking faces competition from recruiting companies, companies that are focusing on both talent and human resource services, job boards, traditional recruiting firms and companies that provide learning and development products and services. Dynamics competition is composed of cloud-based and on-site business solution providers such as Oracle, Salesforce, SAP, and Service Now.

### **2.3.2. Intelligent Cloud**

This segment comprises the server products and cloud services for businesses and developers. It is composed of: Server products, Cloud Services and Enterprise Services.

- I) Server products: software solutions such as Windows Server and SQL Server, which support physical hardware or hybrid cloud environments for businesses.
- II) Cloud services, which include Microsoft Azure, Nuance, and GitHub. Azure acts as a leading cloud platform that provides Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platform as a Service (PaaS). Meanwhile, Nuance acts as an AI-powered solution for customer service industries, and GitHub provides a cloud-based platform for software development.
- III) Enterprise services: are of a support and consulting nature, providing technical services for the implementation and optimisation of Microsoft technologies.

Microsoft's cloud services face fierce competition with industry peers like Amazon Web Services (AWS) and Google Cloud for the number #1 position.

### **2.3.3. More Personal Computing (MPC)**

MPC focuses on Microsoft's consumer-oriented products and services, including operating systems, hardware, gaming and search:

- I) Windows: The company's flagship operating system for personal computers, generating revenue through original equipment manufacturer (OEM) licenses, consumer sales, and enterprise agreements.
- II) Devices: HoloLens, Surface, and PC accessories.
- III) Gaming: Xbox platform (consoles, cloud gaming, game pass and other subscriptions); Activision Blizzard and ZeniMax Media (video game producers) and King (mobile gaming producer).
- IV) Search and Advertising: Bing search engine (including Copilot), Microsoft News, Microsoft Edge, and third-party affiliates.

Microsoft's smallest segment in terms of revenue faces intense competition from established players such as Apple's hardware with its integrated MacBook ecosystem, Google with its Chromebook and Android platform, and various PC manufacturers in the Windows OEM market. The gaming division competes directly with Sony's PlayStation and Nintendo consoles in the global video game industry,

where Microsoft maintains a strong position through its Xbox platform, valuable Activision's intellectual rights, and its growing Game Pass subscription service.

## 2.4. Strategy and Targets

Over the last decade (2010s), the group had its business model pivot from a pure software licensing to a model centred on cloud computing and subscription services, with the current CEO, Satya Nadella, strategizing growth under the following pillars:

- I) **Cloud-First Approach:** Azure and subscription-based services are now leading priorities across global regions, as a way to leverage customers' existing investments with Service as a Service (SaaS) and Product as a Service (PaaS) solutions.
- II) **AI Integration and monetisation:** AI embedment into the current product portfolio, via artificial assistants like Copilot, partnership with OpenAI (\$13 billion investment), and enterprise AI solutions focused on resource planning, governance, and compliance.
  - a. Microsoft's AI strategy operates across three layers: infrastructure (Azure AI services), platform (development tools and APIs), and applications (Copilot suite). This vertical integration creates multiple monetisation opportunities and reduces dependency on any single revenue stream. Microsoft's and OpenAI's partnership creates temporary earnings headwinds that may obscure the underlying value creation. Under equity method accounting, Microsoft recognises its proportional share of OpenAI's losses, which primarily consist of research and development expenses and infrastructure costs—much of which flows back to Microsoft through Azure consumption.
- III) **Product and Platform Innovation:** Digital transformation partner and enhancement of networking effects through deep integration between products, driving customer retention, ecosystem, and platform expansion to benefit from alternative switching costs.
- IV) **Gaming Expansion:** Building of content-driven subscription services (Xbox Game Pass), developing cross-platform experiences, and leveraging cloud gaming infrastructure post-accretive Activision-Blizzard acquisition.

## 2.5. Cloud Computing and Azure

Azure remains the company's primary growth engine, with revenue increasing at approximately 29% YoY. Bloomberg Intelligence (2024) projected the global cloud infrastructure market to reach \$374 billion by 2028, representing a CAGR of 20.5%.

Reputable sources like Business Insider and CRN project that Microsoft's Azure holds an estimated average 23% market share of the global cloud infrastructure, claiming a clear second position over AWS, which is estimated to hold a 30% market share with a slower growth rate compared

to Azure (Canalys, 2025). Thesis on the eventual narrowing of the leadership of cloud computing is fuelled by the early adoption and partnerships that Microsoft established with AI companies, as well as the hybrid and multi-cloud capabilities, resonating signals of increased trust and adoption of cloud services in regulated industries—serving circa 85% of the Fortune 500 companies (Microsoft, 2025). Notably, Azure is also regarded as a top candidate for new public cloud offerings, especially among intra-national enterprises and large sovereign organisations (S&P, 2025).

Microsoft's spending in long-lived assets (datacentres and infrastructure) has surged in recent years, and jointly with forecasts and management's guidance for further spending in that area is a display of confidence to tackle the sustained demand for cloud and AI services (Reuters, 2025). This investment and expansion intensity lead to the widening of barriers to entry and a strategic moat in the AI era.

## **2.6. Lock-in effect**

A lot of tech companies benefit from their vast global infrastructure and offerings, whereby consumers' desire for full data integration and synchronisation leads to a network effect that results in an increased value for products or services, as the escalated user demand creates further organic growth. In the case of Microsoft, it has for decades benefited from the direct network effect of its productivity and business processes segment, more specifically, its Word, Excel, and PowerPoint products, as corroborated by Liebowitz et al. (2012). The company's software was present in a large scale of professional and non-professional environments, leading to a "lock-in" effect—end-users had a very limited choice of alternatives, especially as standardised as Microsoft's products, which consequently created an inconvenience to switch and retrain organisations.

## **2.7. Acquisitions as a growth driver**

Expansion of the Microsoft brand occurred not only by organic growth, proportioned by innovative core software solutions, but also by M&A. Acquisitions have played a fundamental role in Microsoft's corporate and strategic development, serving as one of the main catalysts for its diversified revenue streams by creating access to new markets and technological innovation.

Some of the group's most successful and recognisable acquisitions are explored in the sections below.

### **2.7.1. LinkedIn**

LinkedIn, the world's largest and most valuable professional network, was acquired for \$26.2 billion in 2016 at \$196 per share, marking the beginning of Microsoft's journey into the professional networking and enterprise social media (Microsoft News, 2016). This acquisition brought access to over 433 million professional users and their employment-related data. Fundamentally, the transaction served as a "tap in" into valuable professional data and customer data insights and ultimately prospect seeking users into its Dynamics and CRM ecosystem solutions. Financially, the acquisition has proved to be highly successful, with LinkedIn's revenue growing from \$3 billion in 2016 to over \$17 billion in 2024, representing a CAGR well over 20%. The integration created powerful synergies across Microsoft's productivity suite, particularly Office 365, where LinkedIn data enhanced sales prospecting capabilities (CGS Inc., 2024).

### **2.7.2. GitHub**

GitHub, \$7.5 billion acquisition (2018), developer ecosystem and cloud platform integration, initially categorised as an overly confident and overly expensive financial decision, purchase price consisted of ~30x of GitHub's annual recurring revenue, making it "the highest reported revenue multiple Microsoft has ever paid" (Intrepid, 2018). GitHub's purchase began Microsoft's strategic commitment to developer communities and open-source software development (Microsoft News, 2018; DevClass, 2022). Despite the initial scepticism, the investment has since delivered substantial financial returns as GitHub achieved over \$2 billion in annual recurring revenue by 2024, growing far from its pre-acquisition loss-making business (DevClass, 2022). Purchase price should be seen under a strategic scope instead as GitHub's strategic value in cloud computing and developer tools (Forbes, 2018; Harvard Business Review, 2018) has strengthened both Microsoft's Azure cloud platform and AI projects by providing direct access to over 100 million developers worldwide, creating a pathway for development of software tools cloud infrastructure while scaling adoption of cloud services and integration of its Copilot agent (DevClass, 2022). The financial transformation included the successful monetisation of premium features like Codespaces and Copilot.

### **2.7.3. Nuance Communications**

The \$19.7 billion acquisition of Nuance Communications in 2022 represented its third-largest acquisition overall. Motivation for this purchase was centred around the digitalisation of healthcare systems and the expansion and development of AI, cloud technologies, and voice recognition solutions to the healthcare, retail, and telecommunications businesses (Geekwire, 2022). Nuance's voice recognition systems were established across a wide range of relationships but lacked scale-up potential, which ultimately, at the time before the acquisition, left it with a client portfolio more

directed to the healthcare system, something that Microsoft lacked. Due to its market-leading position in clinical speech recognition technology, Microsoft, also a leader in various industries, saw that it would be able to provide planning and leading capabilities in order to facilitate and capitalise immediately on Nuance's market credibility while obtaining new revenue streams for its healthcare vertical. Financially, the acquisition supported Microsoft's industry-specific cloud strategy, enabling higher-margin services tailored to healthcare providers' unique requirements (Microsoft News, 2021).

#### **2.7.4. Activision Blizzard**

Their largest transaction to date, and the largest one in the selected industry, is Activision Blizzard.

Although being present in the gaming market since the inception of the XBOX brand in 2001, Microsoft's gaming revenue faced already established competition from both Sony PlayStation and Nintendo. In order to bolster growth and distance itself from competition pressures, since around 2014, the company had started to systematically expand its gaming-related revenue via targeted game development acquisitions like Mojang Studios (Minecraft) in 2014 for \$2.5 billion and ZeniMax Media (parent company of Bethesda Softworks) for \$7.5 billion. These transactions demonstrated consistent revenue growth leading up to the Activision acquisition, increasing sales from \$9.0 billion in 2017 to \$16.2 billion in 2022, with a significant pandemic-driven surge from \$11.5 billion in 2020 to \$15.3 billion in 2021 (Investing.com, 2023). However, the division started to face post-COVID-19 challenges, with gaming revenue declining to \$15.47 billion in FY2023 (-4.71% YoY, before Activision integration) and missing annual revenue forecasts by \$780 million in 2023 (Tweaktown, 2023). Despite revenue growth, Xbox consistently ranked third in hardware sales behind PlayStation and Nintendo, struggling to recapture market share and financial viability achieved during the Xbox 360 generation (Wikipedia, 2025).

This \$68.7 billion acquisition of Activision Blizzard in 2023, from a theoretical standpoint, seemed almost like a bolt-on acquisition as Microsoft's solid and experienced infrastructure could mould this transaction and business division to make it its most transformative purchase ever by creating the third-largest gaming company globally by revenue (Wikipedia, 2025). Strategic value of the transaction outspreads immediate financial returns, as the acquisition provided Microsoft with ownership of the intellectual rights of AAA gaming franchises, including Call of Duty, World of Warcraft, and Candy Crush, significantly expanding its content library and subscriber base (BS Capital Markets, 2022). The addition of loyal franchise customers via the integration of gaming titles to the Xbox Game Pass growth added nearly 400 million monthly active users across 190 countries, substantially increasing Microsoft's recurring subscription revenue potential (BS Capital Markets, 2022). Long-term financial benefits include enhanced monetisation opportunities through ecosystem-exclusive content, mobile gaming expansion, and positioning for cloud gaming.

This collective of strategic acquisitions essentially transformed Microsoft's mission and strategy from a traditionally cyclical software licensing firm to a diversified, subscription-based technological platform generating predictable recurring revenue streams, fundamentally improving financial resilience and long-term growth prospects across multiple high-growth technology sectors.

## **2.8. Financial Analysis – Fiscal Year End (31/06/2024)**

In order to truthfully assess the industry specifics and overall key financial drivers of Microsoft, a financial and SWOT analysis were performed with the intention to delve deeper into the important assumptions for a tailor-made DCF valuation.

Historically, MSFT's revenue has increased consecutively YoY, with the latest +15.7% revenue increase being primarily driven by resilient performance across all segments steered by catalytic agents such as demand for both Cloud services and AI (+19.9% YoY in Intelligent Cloud). Operationally, Microsoft's EBITDA margin shows an upward trend and now hovers at around +50% (from ~45% in 2020 to ~54% in 2024). Net profit also maintains a strong and consistent net margin of ~35% over the last three financial years. Additional details can be found in Appendix 33 data.

One of the group's main strengths is its recurring revenue and subscription-based business model, which translates to a strong and efficient cash flow generation, as NOCF/EBITDA conversion averages +88.8% cash conversion from business operations. Due to its large cash concentration and efficient generation, the firm manages to fully fund both its innovative and increasing CapEx plans and shareholder remuneration (quarterly growing dividends and stock repurchasing programs) through its own cash generation. CapEx expansion (upwards trend in CapEx/sales ratio going from 12% in FY2022 to 18% in FY2024) is linked to AI-related innovation and demand, which is currently constrained by available supply—analysts expect capital spending to grow to more than 20% of sales in the coming years.

Asset-wise, Microsoft has a robust balance sheet that totalled USD 512.16bn in FY2024 (+24% YoY), mainly composed of goodwill (USD 119bn), fixed assets—property and equipment (USD 154bn), and current assets, mostly cash at USD 75bn. It is worth mentioning that the company's balance sheet does not show the tangible net worth (TNW) of its intellectual property; nevertheless, TNW is equal to USD 121.66bn (-5.6% YoY). Equity stands at USD 268.48bn for FY2024, surging +30% against the previous year, making the equity ratio increase to 52%. Such value demonstrates the group's low leverage profile as gross debt totalled to just USD 97.85bn, covered by ~77% of cash available—net debt position of USD 22.319bn, which translates to a net leverage (Net Debt/EBITDA) of 0.2x. Therefore, liquidity is considered exceptional as available cash & investments, expected FCF, and excellent credit rating could absorb any potential substantial cash outflows.

## 2.9. SWOT Analysis

With the purpose of obtaining a clear and structured overview of the factors influencing Microsoft's business and its prospects, the SWOT framework was chosen.

Strengths: i) Diversified revenue streams across consumer and enterprise segments; ii) Strong brand recognition and customer loyalty (Brand Finance, 2025); iii) Commanding market share corroborated by deep product integration and user-driven valuation effects; iv) Robust R&D capabilities with \$29.51 billion expended research and development (R&D) spending (~12% of FY24 revenue); iv) Significant financial resources for acquisitions and bolt-on innovation solutions.

Weaknesses: i) Relatively slower growth in the Personal Computing segment; ii) Heavy dependence on the Windows ecosystem; iii) Regulatory scrutiny and antitrust concerns (European Commission, 2023); iv) Challenged position in mobile operating systems.

Opportunities: i) Continued expansion in the cloud computing market, projected to grow at 20.5% CAGR through 2028 (Gartner, 2024); ii) AI integration across product portfolio; iii) Growth in gaming through Xbox Game Pass and acquisitions; iv) Enterprise digital transformation accelerated by the pandemic.

Threats: i) Intense competition in cloud services from AWS and Google Cloud; ii) Potential regulatory actions in both the US and EU markets; iii) Cybersecurity vulnerabilities and data privacy concerns; iv) Macroeconomic uncertainty affecting corporate IT spending.

## 2.10. Outlook

It is of personal strong belief and the consensus view that Microsoft's maintains and capitalizes from its long-term growth potential in the ever expanding information technology (IT) market, underpinned by the company's strategic positioning and operational strengths, particularly its leading market position, coupled with its focus on cloud services and AI, ability to adapt to market shifts and innovate in high-growth areas creating tailwind potential for long-term success.

Accordingly, development around the strategic AI verticality and the arms race for artificial general intelligence (AGI) will likely be at the front of the group priorities as the ever-increasing CapEx investments are justified by the high demand for AI-performed computation and its underlying super cycle.



## 3. Industry Overview and Macroeconomic Outlook

### 3.1. Industry Overview

The technology sector or Information Technology (IT) sector is broadly defined as the sector behind technology, meaning that it is the business sector that applies scientific findings to practical usage, particularly as a way to solve problems and to enhance human potential (Britannica, 2025). Currently, the technology sector, or tech sector as the term is frequently shortened, offers a wide range of products and services for both consumers and businesses. It is important to distinguish sector from industry, as industry corresponds to a group of companies “that are all similar in type”, while “a sector is a segment of the broader economy” (Investopedia, 2022).

Microsoft is classified within the software and services industry under the IT sector, seeking digital transformation through innovative software and IT infrastructure. Some of the largest peers are companies like Alphabet, Amazon, Apple, IBM, Meta, Oracle, Salesforce and SAP.

In 2024, the software and services industry exhibited robust performance, reaching revenues of circa \$800 billion (Gartner, 2024). According to data from the International Data Corporation (IDC), the industry’s performance is being driven by a strong demand for cloud solutions, data analytics, and digital transformation initiatives (IDC, 2024). Companies worldwide increasingly seek to leverage technological solutions in their business in order to increase efficiency, business modernisation, and competitive positioning by investing in subscription-based models, SaaS platforms, ERP or CRM solutions, or even other business productivity applications, leading to a consensus for continued industry growth over the next decade.

As every industry, the software industry demand is also benefitting of key market narratives, them being: the rise of digital transformation which has seen a scaling surge in capital expenditure plans in artificial intelligence (AI) infrastructure, bundling AI solutions with software and infrastructure offerings; cloud services and transition, exponential growth of data and IT workload is shifting from on-site infrastructure to cloud environments, poising cloud solutions providers to capitalize on market growth.

### 3.2. Macroeconomic Overview

2024 was marked as a period of global economic transition as the macroeconomic environment was starting to ease amidst the preceding inflation-heavy periods of 2021-2023, characterised by tight monetary policies. The 2021-2023 period saw global inflation peaking at multi-year highs on the back of supply chain disruptions, breakout of spot energy prices, and post-COVID demand uncertainty. In 2024, economies worldwide experienced moderate growth relative to the rebound experienced post the COVID pandemic. The International Monetary Fund (IMF) projected a stable yet underwhelming global GDP growth of circa +3.1% for 2024 (vs. +3.3% actual) with emerging economies (+4.3% YoY) posing growth resilience when faced against developed regions (+1.8%), as Europe and North America saw their growth slowdown and a steady recovery ahead (IMF, 2024).

Looking ahead, as suggested in Figure 3.1, the IMF expects a global GDP growth of +2.8% for 2025 and +3.0% for 2026 after the announcement and enforcement of tariff measures (vs. projected 3.3% in 2025 and 2026, January 2025), whereas OECD expects a revised real GDP growth of +3.1% for 2025 and +3.0% for 2026 (vs. 3.3% for both years), both organizations maintain a downwards sentiment against the historical average growth during 2000-2019 of +3.7%, mostly driven by increased friction in global trade.

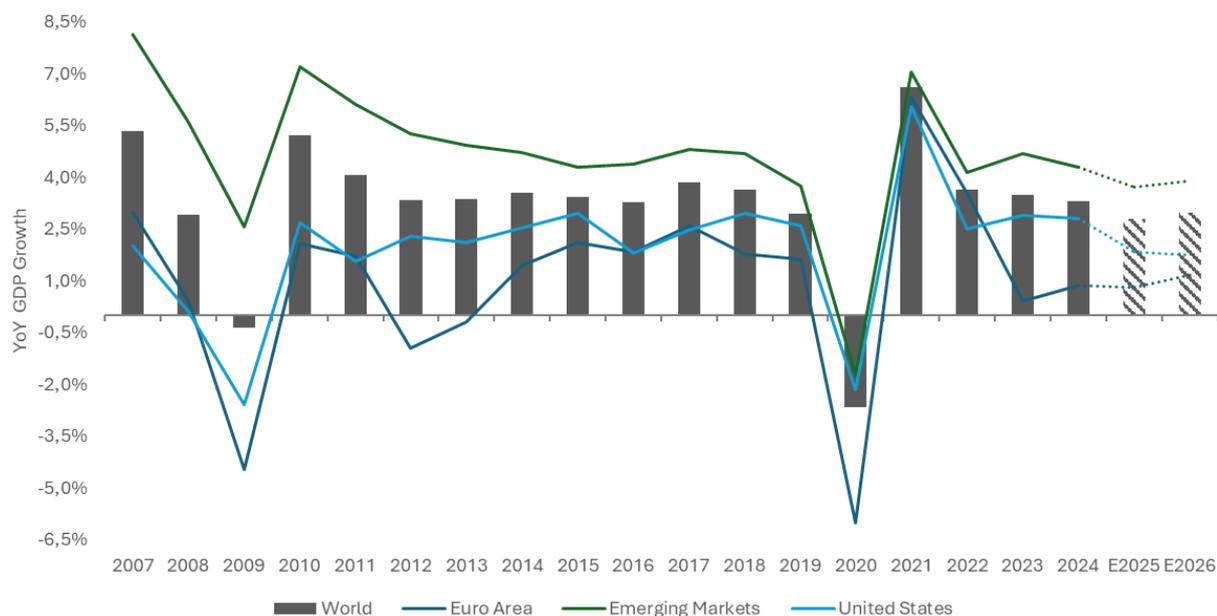
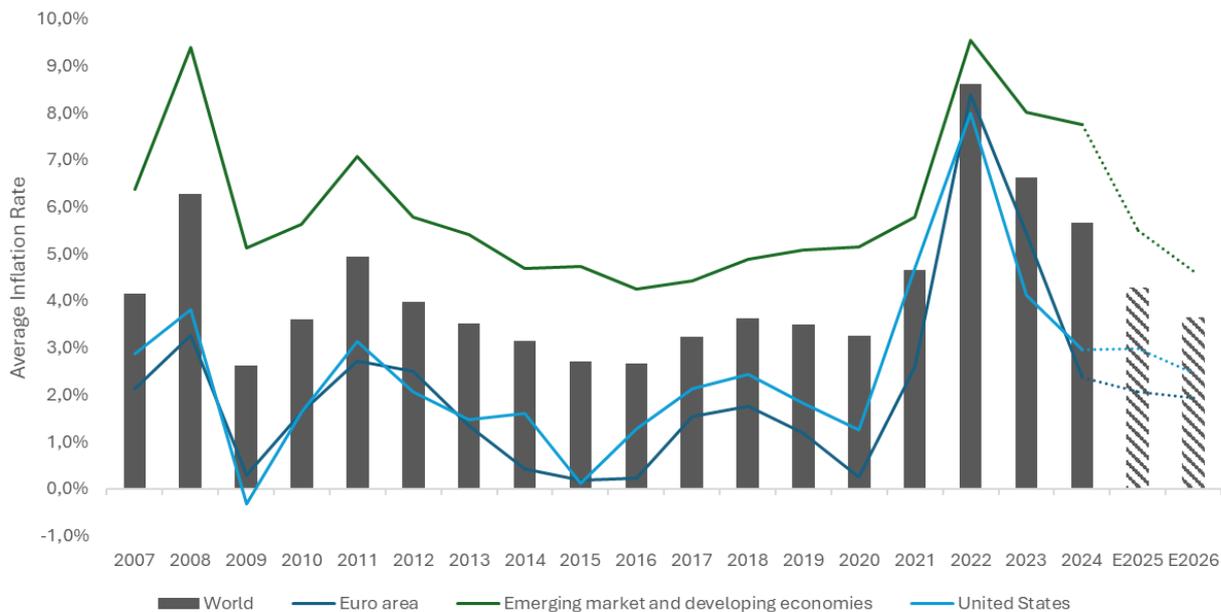


Figure 3.1- Real GDP Growth % (2007-2026) (forecasted). Source: IMF (2025)

Global economies are expected to post a cautious but uneven gradual recovery, notably the Euro Area to post +0.8% in 2025 and +1.2% growth in 2026, the United States is expected to post +1.8% and +1.7%, respectively, while emerging markets outpace global growth with +3.7% and +3.9% respectively.

Although inflation started to show signs of moderation in 2024, as represented in figure 3.2, central banks maintained a cautious approach, as lingering effects from prior crises were still present and shown by a combination of tight labour markets, geopolitical uncertainty, and currency fluctuations, shaping a complex economic landscape. Such economic context made the global monetary authorities pivot their varied crisis-driven policy responses towards a more data-driven and calculative approach, highlighting the importance of disinflation in the broader goal of economic stability.



**Figure 3.2- Average CPI % (2007-2026) (forecasted). Source: IMF (2025)**

In the US, the FED had raised interest rates in 2022 and 2023 to combat high inflation, peaking at 8.0% in 2022 and 4.1% in 2023. By the start of 2024, inflation was beginning to cool, albeit higher than the 2% target. Responding to the deceleration of the economy, the FED employed four rate cuts of 25 bps each, totalling 100 basis points during 2024, reducing the federal funds rate to a range between 4.25% to 4.50% in the last cut in December 2024. Since then, in the first quarter of 2025, the Federal Reserve has opted to maintain the reference rate unchanged on the back of economic uncertainty brewed by the new administration's strategies and the announced slowdown of liquidity tightening (quantitative tightening) of the FED's balance sheet.

Similarly, the ECB maintained high reference rates in the first half of 2024, addressing the persistent inflation. In June 2024, as inflation started to ease, the ECB began its easing cycle with a consecutive rate-cutting cycle until December, steering the deposit rate to 3.0% from 3.75% in June 2024. Since then, on par with rising trade uncertainty and geopolitical risks weighing on the Euro area subdued economic growth, the ECB has once again consecutively cut the rates in January 2025 to 2.75% (-25 bps), March 2025 to 2.5% (-25 bps) and in April 2025 to 2.25% (-25bps) aiming to encourage borrowing and spending as a stimulus for the sluggish economic growth.

IMF forecasts global inflation to average at 4.3% in 2025 (-140 bps from the 5.7% average in 2024) and 3.6% in 2026. On a narrower scope, Euro area average inflation (2.4% in 2024) is projected to close at 2.1% in 2025 and 1.9% in 2026; US (3.0% in 2024) to report 3.0% in 2025 and 2.5% in 2026, while Emerging Markets (7.7% in 2024) expected to achieve an average inflation of 5.5% and 4.6%, respectively.

Notably, digital adoption emerged as a lead driver for economic growth in future years, corroborated by multiple reports like the *Digital Economy Report 2024* (UNCTAD) and the *Digital Economy Outlook 2024* (OECD), which noted that multiple regions accelerated investments in AI, cloud services and automation spurring a boost in productivity and competitive position, proving to be an important pillar for economic resilience. This leads us to believe that Microsoft has significant potential in its core segments.

## 4. Stock Performance and Competitive Landscape

### 4.1. Stock Performance

According to Figure 4.1, Microsoft (MSFT) has delivered a +166.98% return over the 01/2020 to 05/2025 period, with Meta (META) being the only outperformer of the analysed peers with a +222.05% return. The NASDAQ composite follows with +136.60%, Google (GOOGL) with +130.41%, Amazon (AMZN) with +102.55%, and the S&P 500 returning +82.83%.

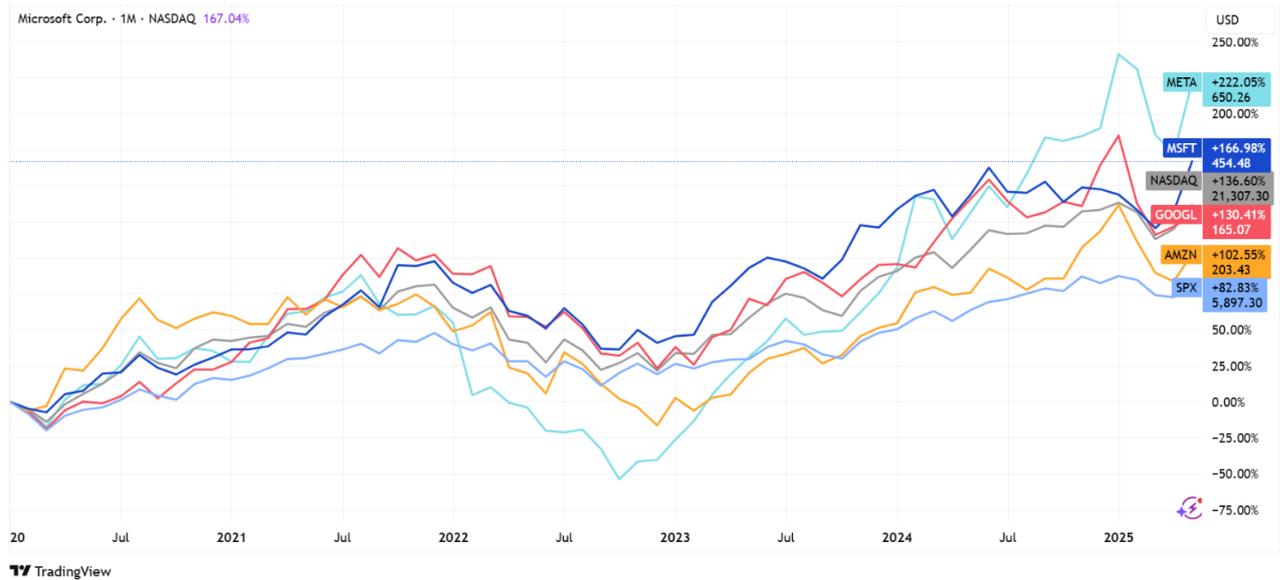


Figure 4.1- Monthly Returns (%) from 01/2020 to 05/2025. Source: TradingView

Microsoft has outperformed both broad market indices (NASDAQ and the S&P 500) and most tech mega caps, with only Meta achieving superior gains. Its stock performance has also shown solid fundamentals as broad market dips tended to be shallower when compared to Meta and Amazon, indicating greater cyclical resistance during macroeconomic stress (e.g., interest rate hikes, inflation fears). Meta saw a steep drawdown in 2022, likely linked to metaverse-related CapEx and the slowing of revenues. Amazon also suffered inflationary pressures during this time, while Google and NASDAQ followed more stable trends but still underperformed MSFT.

Ultimately, Microsoft is perceived as a defensive tech play, offering an “enterprise moat”—a competitive advantage which protects it from the competition (Buffet, 1999), via its verticality and deep integration, coupled with growth and exposure to the IT industry with less than average volatility. The market sees MSFT as a trustworthy long-term investment play, resilient in downturns and accretive in bull runs, validated by the high institutional ownership of the stock, as it is part of multiple pension funds and “long-only” investments. Its diversified revenue base—cloud (Azure), enterprise software, AI, and gaming—has likely contributed to this stability.

## 4.2. Competitive Landscape

Microsoft maintains leading positions across highly competitive segments with strong financial metrics compared to both the technology sector and the broader market, as illustrated in Table 4.1.

| FY24, USD Million        | Microsoft      | Amazon            | Alphabet          | Meta              |
|--------------------------|----------------|-------------------|-------------------|-------------------|
| End of reporting period  | June 30, 2024  | December 31, 2024 | December 31, 2024 | December 31, 2024 |
| S&P / Moody's            | AAA / Aaa      | AA / A1           | AA+ / Aa2         | AA- / Aa3         |
| Market Cap (12/05/2025)  | 3 338 253      | 2 177 000         | 1 876 556         | 1 460 300         |
| <b>Sales</b>             | <b>245 122</b> | <b>574 785</b>    | <b>349 807</b>    | <b>164 501</b>    |
| <i>Sales Growth</i>      | 15,7%          | 12,0%             | 13,9%             | 21,9%             |
| <b>EBITDA</b>            | <b>131 720</b> | <b>121 395</b>    | <b>127 490</b>    | <b>85 267</b>     |
| <i>EBITDA margin</i>     | 53,7%          | 21,1%             | 36,4%             | 51,8%             |
| <b>Net Income</b>        | <b>88 136</b>  | <b>59 248</b>     | <b>100 118</b>    | <b>62 360</b>     |
| <i>Net Margin</i>        | 36,0%          | 10,3%             | 28,6%             | 37,9%             |
| <b>CapEx</b>             | <b>44 477</b>  | <b>82 999</b>     | <b>52 535</b>     | <b>37 256</b>     |
| <i>% Sales</i>           | 18,1%          | 14,4%             | 15,0%             | 22,6%             |
| <b>NOCF</b>              | <b>118 548</b> | <b>115 877</b>    | <b>125 299</b>    | <b>91 328</b>     |
| <i>% EBITDA</i>          | 90,0%          | 95,5%             | 98,3%             | 107,1%            |
| <b>FCF</b>               | <b>74 071</b>  | <b>32 878</b>     | <b>72 764</b>     | <b>54 072</b>     |
| <b>Total Assets</b>      | <b>512 163</b> | <b>624 900</b>    | <b>402 392</b>    | <b>229 623</b>    |
| Cash                     | 75 543         | 101 202           | 95 657            | 77 815            |
| <b>Total Equity</b>      | <b>268 477</b> | <b>286 000</b>    | <b>283 379</b>    | <b>153 168</b>    |
| Gross Debt               | 97 852         | 159 570           | 28 137            | 49 769            |
| Net Debt                 | 22 309         | 58 368            | 67 520            | 28 046            |
| <b>Equity Ratio</b>      | <b>52%</b>     | <b>46%</b>        | <b>70%</b>        | <b>67%</b>        |
| <b>Net Leverage</b>      | <b>0,2x</b>    | <b>0,5x</b>       | <b>-0,5x</b>      | <b>-0,3x</b>      |
| <b>P/E (YE24)</b>        | <b>42,8</b>    | <b>41,2</b>       | <b>23,5</b>       | <b>29,8</b>       |
| <b>EV/Revenue (YE24)</b> | <b>14,2x</b>   | <b>3,2x</b>       | <b>4,6x</b>       | <b>10,8x</b>      |

Table 4.1 - Microsoft Peer Analysis. Source: Own work, Bloomberg Terminal (2025)

Drawing upon fiscal year 2024 data, Microsoft holds the largest market capitalization of the alongside its peers at \$3.3 trillion, #3 position in terms of revenue coming in at \$245 billion for FY24, #1 in operating margin goes as it holds the largest EBITDA margin at ~54% of all and the second largest net margin at 36%, behind Meta. In terms of cash flow, Microsoft's CapEx is equal to around 18% of its FY24 revenue, demonstrating a significant increase over the years and the #2 position among competitors. The recurring revenue/subscription services model translates to a strong operational cash to EBITDA conversion of 90%; nevertheless, Microsoft is positioned last in comparison to its peers.

In terms of capital structure, MSFT holds the #2 largest balance sheet of the analysed corporates with the strong equity ratio of 52%, situating it as a healthy company with a modest usage of debt against its equity, validated also by its light net debt position of \$22 billion which translates to a net leverage of 0.2x, demonstrating strong liquidity against contracted debt. Investors and market expectations value Microsoft with the highest EV/Revenue ratio of all peers, suggesting that the higher multiple position reflects a premium for the leading position in the industry, key prospects for future

growth, and a positive sentiment towards the capitalisation of industry trends. While other tech corporates provide rawer returns, MSFT's smoother trajectory and diversified strengths make it a higher-quality growth asset. Notably, Microsoft is also the highest long-term credit-rated corporate when compared to its peers, assessed as the lowest possible credit risk by both S&P and Moody's (AAA and Aaa, respectively).

Microsoft stands out as a top-tier equity within the tech sector, offering a leading position, superior stock returns, lower volatility, and strong fundamental support. Its outperformance versus peers and indices makes it a cornerstone of any long-term growth-oriented equity portfolio. With future promising prospects and growth factors to be driven by the widespread adoption of AI and cloud-based services.



## 5. Valuation — DCF

Fulfilling the valuation exercise for the technological giant, the DCF framework was preferred as the fundamental approach to estimate the intrinsic value of the company based on the closing date for the latest financial reporting (31<sup>st</sup> of June 2024) by forecasting its future cash flows and subsequently discounting them to their present value through the application of an appropriate discount rate. Primarily, the intrinsic value of the equity will be derived from its expected future cash flow generation, systematically adjusted for the WACC, a concept detailed and supported by Koller, Goedhart, and Wessels (2020).

Accordingly, this chapter intends to estimate the fundamental value of MSFT's share price, comparing it to the prevailing market price to assess to what extent the market valuation is supported by the underlying cash flow projections and as an evidence-based tool highlighting if Microsoft is under- or overvalued by the market.

### 5.1. DCF Framework

The applied DCF model valuation required significant adaptation to its traditional form as Microsoft and technological companies exhibit distinctive operational characteristics, capital structures, and growth patterns. Fortifying the DCF approach, an emphasis on revenue projections has been done, where each business unit was accordingly segmented and a different growth trajectory was achieved, all while incorporating key details like multi-stage growth forecasts, where periods of significant scale-ups of revenue are followed by stable, long-term growth.

As mentioned in the literature review, several published and comparative papers on the FCFF approach have found that the FCFF-based valuation yields a more stable and accurate estimate of the company value. Notably, MSFT generates large amounts of FCF each year, much of which is used for reinvestments, share buybacks, and dividend payments. Therefore, its capital allocation and payout policies mean FCFE could understate the business's intrinsic value or capacity for shareholder returns if it only tracks reported payouts. The FCFF model ensures a holistic view of the full scope of cash the firms generate over time, regardless of current payout choices (Koller et al. 2010).

In spite of being considered a corporation with a historic/mature profile, its insertion in the technology industry makes it differ from traditional mature industrial companies, as growth patterns are not as relatively predictable and stable. Historically, tech firms experience exponential growth followed by a period of disruption or deceleration, as such growth volatility remains a challenge in the forecasting of cash flows.

In accordance with the aforementioned and in contrast to the standardised approaches for company valuation, the discounted dividend model (DDM) was opted out as an approach deemed

imprecise for a corporation like MSFT. Motivation behind the waiver of the alternative is influenced by the conservative dividend policy employed by the company, retaining most earnings for growth purposes, and the model's constraint with the non-incorporation of alternative shareholder remuneration measures. Although Microsoft's dividend policy shows stable and recurring payments, the DDM model would not accurately depict the entire shareholder yield provided by the firm, since a significant amount of the shareholder returns result from the inflation of the stock price via the large-scale share repurchase programs. Secondly, the bulk of Microsoft's corporate value stems from the capitalisation of the returns generated by its R&D, M&A, and capital investments, which the DDM only indirectly captures through the dividend growth rate and its conservative payout ratio.

Consequently, the FCF approach was adopted, aiming to represent the operating cash flows generated by the company before any debt servicing. Inside the method, the following steps were taken: FCF projection, where a five-year fiscal period was forecasted, as the projections aim to simulate five years in advance from the latest financial year close (31/06/2024 to 31/06/2029).

## **5.2. Assumptions**

The base model is computed upon several assumptions in order to discount the free cash flows and project the company's value beyond the forecasted scenario. The WACC was utilised as the principal discount rate, as it reflects the cost of capital for all the financing providers. The perpetuity value was captured by the computation of the terminal value, which was achieved by the estimation of the company's value beyond the forecasted period via an assumed growth rate.

### **5.2.1. Discount Rate Calculation - WACC**

The discount rate utilised for this valuation— WACC— was determined by the cost of equity and cost of debt, weighted by their respective proportion in the reported capital structure, as shown in equation 3.

#### **5.2.1.1. Cost of Equity**

Cost of equity was calculated using the capital asset pricing model (CAPM) framework, equation 4, where the adopted risk-free rate was the US 10-year treasury securities at a 4.17% yield (FRED, May 2025), as Microsoft's revenue is predominantly generated in the United States.

Market Risk Premium (MRP) of 4.33% was assumed from Damodaran's "Country Default Spreads and Risk Premiums," published in January 2025, providing an up-to-date country risk premium for the United States, alongside its corresponding default spread (Damodaran, 2025). It is notable that

Moody's recently downgraded the US credit rating from Aaa to Aa1 (Moody's, 2025), leading to possible deviations in the current risk premium.

Lastly, the considered equity beta ( $\beta$ ) of 1.03 was derived from the 5-year monthly return calculation from Yahoo Finance (May 2025).

Based on the aforementioned inputs, the calculated CAPM leads to a cost of equity of 8.63%.

### 5.2.1.2. Cost of Debt

Cost of debt before tax was determined to be circa 4.01%, representing the weighted average of yield to maturity of Microsoft issued bonds as referred in Table 5.1.

| Issuance Year            | Face Value (m) | Avg. Interest Rate | Interest Weighted by Face Value (m × %) |
|--------------------------|----------------|--------------------|---|
| 2009                     | 520            | 5.24%              | 27.25                                   |
| 2010                     | 486            | 4.57%              | 22.21                                   |
| 2011                     | 718            | 5.36%              | 38.48                                   |
| 2012                     | 454            | 3.57%              | 16.21                                   |
| 2013                     | 314            | 4.92%              | 15.45                                   |
| 2013                     | 2 484          | 2.96%              | 73.53                                   |
| 2015                     | 9 805          | 3.78%              | 370.63                                  |
| 2016                     | 7 930          | 3.25%              | 257.73                                  |
| 2017                     | 6 833          | 4.44%              | 303.39                                  |
| 2020                     | 10 111         | 4.98%              | 503.53                                  |
| 2021                     | 8 185          | 2.98%              | 243.91                                  |
| 2023                     | 3 401          | 5.33%              | 181.27                                  |
| <b>Totals</b>            | <b>51 241</b>  |                    | <b>2 053.58</b>                         |
| <b>Weighted Avg. YTM</b> | <b>4.01%</b>   |                    |   |

Table 5.1 - Estimation of the cost of debt via Microsoft-issued bonds. Source: Own work, (2025)

As the debt portfolio pays periodic interest that is generally corporate tax-deductible, the cost of debt was adjusted to its after-tax result of 3.28%.

$$\text{After Tax Cost of Debt} = (\text{Weighted Avg. YTM}) \times (1 - \text{Tax Rate}) \quad (12)$$

### **5.2.1.3. Corporate Tax Rate**

An unchanged effective tax rate of 18.2% was applied for both the WACC-related calculations and DCF forecast, which was derived from the implied corporate tax rate as reported in the company's most recent 10-K filing.

### **5.2.1.4. Capital Structure**

To calculate the equity-to-debt ratio, the amount of equity for Microsoft was proxied to the fiscal year end (June 2024) market capitalisation of \$3 321 869 million (TIKR, 2025). In regard to the current debt structure of the company, it was assumed to be equal to the company's outstanding gross debt of \$97,852 million according to their fiscal year 2024 reporting.

### **5.2.1.5. WACC result**

Factoring in the calculated cost of equity, cost of debt, effective tax rate, and capital structure, the achieved WACC is 8.46%.

## **5.2.2. Financial Forecasts**

In order to project the financial statements, an FCF driver-based build was performed on the period of 2025 to 2029 before estimating the perpetual company growth value, with assumptions on key variables such as revenue growth by segment, EBIT margins, CapEx, changes in working capital, depreciation, and implied tax rate. These assumptions were based on historical financial data from Microsoft, complemented by management guidance/outlooks as stated on quarterly results presentations and annual filings, and several industry studies.

### **5.2.2.1. Revenue Growth**

Starting in FY25, the 2025 revenue assumptions were mostly based on Microsoft's management Q3'25 guidance and their recent segment adjustment (August 2024), where MSFT announced the restatement of FY24 and FY23 by adding Power BI (MPC) and Commercial Cloud (Intelligent Cloud) to the Productivity Solutions segment. Further on, future growth expectations were modelled using the average historical revenue growth rate for each segment (five-year average) combined and adjusted with industry consensus estimates for compound annual growth (CAGR) over the forecasted period. This methodology consists of the arithmetic mean of Microsoft's historical resilient and competition-resistant performance, combined with market forecasts for each industry, which capture structural trends and exogenous factors.

Therefore, the following assumptions were taken:

- i) Productivity and Business Processes division is assumed to grow at a CAGR of 17.8% from 2025 to 2029.
- ii) Intelligent Cloud is assumed to grow at a CAGR of 20.3% during the projected period.
- iii) More Personal Computing is expected to grow at a CAGR of 7.0% from 2025 to 2029.

Productivity & Business Processes hold a 5-year historical CAGR of 20.5% and its market is seen in a consensus view to grow at a CAGR of 16.9% until 2030, according to the computed average of each research unit's view (Grandview, Fortune Business Insights, Research and Markets, and Allied Market Research). Rationale for consistent growth partakes in increased demand for enterprise solutions, integration, and monetisation of AI into product portfolio (Copilot), which is expected to create further revenue growth.

Secondly, Intelligent Cloud is projected to be the largest growing division, as industry research from Cloudzero, Grandview, Precedence Research, Statista, and Research Markets averages to a CAGR of 20.64% for the cloud solutions market, while Microsoft's 5-year historical average revenue growth totals to a CAGR of 18.6%. This assumption is propelled by continuous investments and demand for Azure, AI infrastructure, Cloud computing, storage, data, and networking.

Lastly, More Personal Computing for the five prior fiscal years recorded a revenue CAGR of 4.1%, while the average of the chosen industry research for the personal computer market forecasted a CAGR of 6.09% for the 2025-2030 period (Statista and Mordor Intelligence) and expectations for the gaming market sit at average CAGR of 10.66% for the same period (Grandview, Fortune Business Insights, Mordor Intelligence). Contrary to the historical underperformance of this sector, the comparatively optimistic CAGR is fundamentally based on the bundling and ecosystem advantages provided by Windows and the growing Xbox environment that synergistically benefits from the Activision-Blizzard acquisition, while leading the market for cloud gaming solutions, which plays a key role in the company's wider strategy.

Overall revenue is projected to grow at a CAGR of +16.9% totalling \$525 084 million in 2029 (vs. \$245 122 million in FY24), as reported in Table 5.2 and Table 5.3.

| USD Million                                | FY2024         | 2025e          | 2026e          | 2027e          | 2028e          | 2029e          |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Revenue</b>                             | <b>245 122</b> | <b>281 128</b> | <b>327 825</b> | <b>382 948</b> | <b>448 075</b> | <b>525 084</b> |
| <i>Productivity and Business Processes</i> | <i>106 820</i> | <i>120 707</i> | <i>142 135</i> | <i>167 368</i> | <i>197 080</i> | <i>232 067</i> |
| <i>Intelligent Cloud</i>                   | <i>87 464</i>  | <i>105 795</i> | <i>127 267</i> | <i>153 096</i> | <i>184 167</i> | <i>221 545</i> |
| <i>More Personal Computing</i>             | <i>50 838</i>  | <i>54 627</i>  | <i>58 424</i>  | <i>62 484</i>  | <i>66 827</i>  | <i>71 472</i>  |

**Table 5.2 - Microsoft Revenue Forecast. Source: Own work (2025)**

| Fiscal Year                                | 2025e        | 2026e        | 2027e        | 2028e        | 2029e        | CAGR         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Revenue Growth</b>                      | <b>12.8%</b> | <b>14.2%</b> | <b>14.4%</b> | <b>14.5%</b> | <b>14.7%</b> | <b>16.9%</b> |
| <i>Productivity and Business Processes</i> | <i>13.0%</i> | <i>17.8%</i> | <i>17.8%</i> | <i>17.8%</i> | <i>17.8%</i> | <b>17.8%</b> |
| <i>Intelligent Cloud</i>                   | <i>21.0%</i> | <i>20.3%</i> | <i>20.3%</i> | <i>20.3%</i> | <i>20.3%</i> | <b>20.3%</b> |
| <i>More Personal Computing</i>             | <i>7.5%</i>  | <i>7.0%</i>  | <i>7.0%</i>  | <i>7.0%</i>  | <i>7.0%</i>  | <b>7.0%</b>  |

Table 5.3 - Microsoft Growth Forecast. Source: Own work (2025)

### 5.2.2.2. EBIT Margin

Operating margin assumptions are divided into a three-step process, where for the first year of the forecast, Microsoft's Q3'25 investor relations guidance was largely considered, which sees the EBIT margin staying relatively stable for each division compared to FY24. As for 2026 and 2027, EBIT margin is expected to increase by two and one percentage points, respectively, as operational efficiencies and optimisation of product mix are starting to be anticipated via the enhanced pricing power from strategic execution of AI integration, market penetration, and successful integration of acquisitions. Finally, the model stabilises margins via the employment of the historical geometric mean, where each margin value for  $n + 1$  fiscal year corresponds to the geometric mean of the margins in  $n$ ;  $n - 1$ ;  $n - 2$  fiscal years. This approach was specifically chosen because it effectively captures the compounding effect of growth rates over time, which is crucial for ensuring accurate long-term financial forecasts, unlike the arithmetic mean, which can potentially overestimate growth by failing to account for compounding. Damodaran (2012) underscored the geometric mean's vital role in financial modelling as EBIT exhibits autocorrelation over time and the capacity of the method to accurately reflect compounded growth. Table 5.4 demonstrates that EBIT margin is expected to grow from 44.6% in FY24 to 48.2% in 2029.

| USD Million                                | FY2024         | 2025e          | 2026e          | 2027e          | 2028e          | 2029e          |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Total EBIT</b>                          | <b>109 433</b> | <b>125 651</b> | <b>154 178</b> | <b>184 368</b> | <b>214 313</b> | <b>252 901</b> |
| <b>EBIT Margin</b>                         | <b>44.6%</b>   | <b>44.7%</b>   | <b>47.0%</b>   | <b>48.1%</b>   | <b>47.8%</b>   | <b>48.2%</b>   |
| <i>Productivity and Business Processes</i> | <i>59 661</i>  | <i>66 389</i>  | <i>81 017</i>  | <i>97 073</i>  | <i>112 979</i> | <i>133 168</i> |
| <i>EBIT Margin</i>                         | <i>55.9%</i>   | <i>55.0%</i>   | <i>57.0%</i>   | <i>58.0%</i>   | <i>57.3%</i>   | <i>57.4%</i>   |
| <i>Intelligent Cloud</i>                   | <i>37 813</i>  | <i>45 492</i>  | <i>57 270</i>  | <i>70 424</i>  | <i>83 473</i>  | <i>100 542</i> |
| <i>EBIT Margin</i>                         | <i>43.2%</i>   | <i>43.0%</i>   | <i>45.0%</i>   | <i>46.0%</i>   | <i>45.3%</i>   | <i>45.4%</i>   |
| <i>More Personal Computing</i>             | <i>11 959</i>  | <i>13 770</i>  | <i>15 891</i>  | <i>16 871</i>  | <i>17 861</i>  | <i>19 191</i>  |
| <i>EBIT Margin</i>                         | <i>23.5%</i>   | <i>25.2%</i>   | <i>27.2%</i>   | <i>27.0%</i>   | <i>26.7%</i>   | <i>26.9%</i>   |

Table 5.4 - Microsoft EBIT & Margin Forecast. Source: Own work (2025)

### 5.2.2.3. Capital Expenditure

CapEx assumptions for FY25 are predicated on a projected quarterly CAPEX growth of approximately USD +5 000/6 000 million when compared to YoY, corroborated by management’s plan (Microsoft, Q3 2025) as the company announced capital investment scale-up aligning with the overall industry trend, as an act to face increased AI demand. This figure was then annualised by a factor of four to represent annual growth, leading to a CapEx/Revenues ratio of 23.8% for FY25. Remaining projections are based upon the Capex/Sales ratio. FY26 is expected to be the ceiling for CapEx/Revenues expenditure at Microsoft to a figure of 25.0%. For the financial years forward, CapEx is assumed to stabilise in absolute values, while the percent to sales decreases to 22.1% in FY27, 20.0% in FY28, and 18.0% in FY29. In absolute terms, CapEx is projected to grow from \$ 44 477 million in FY24 to \$ 94 515 million in FY29, as in Table 5.5.

### 5.2.2.4. Depreciation & Amortisation

Forecast for depreciation and amortisation (D&A) was done on a ratio to sales basis, where D&A was projected to increase to a stable 10.6% of sales for the entire forecast period (vs. 9.1% in FY24). Justification being the elevated capital investment intensity in Cloud and AI-related infrastructure should reflect a depreciation expense that matches the company’s increasing asset base.

### 5.2.2.5. Change in Working Capital

Ensuring consistency with past performance and improvements of operational efficiency of the business model, working capital needs are assumed to maintain a -1% of sales expenditure throughout the projection period.

| USD Million                            | FY2024        | 2025e         | 2026e         | 2027e         | 2028e         | 2029e         |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Depreciation &amp; Amortization</b> | <b>22 287</b> | <b>29 800</b> | <b>34 750</b> | <b>40 593</b> | <b>47 496</b> | <b>55 659</b> |
| <i>% of sales</i>                      | <i>9.1%</i>   | <i>10.6%</i>  | <i>10.6%</i>  | <i>10.6%</i>  | <i>10.6%</i>  | <i>10.6%</i>  |
| <b>CapEx</b>                           | <b>44 477</b> | <b>66 968</b> | <b>81 968</b> | <b>84 666</b> | <b>89 615</b> | <b>94 515</b> |
| <i>% of Sales</i>                      | <i>18.1%</i>  | <i>23.8%</i>  | <i>25.0%</i>  | <i>22.1%</i>  | <i>20.0%</i>  | <i>18.0%</i>  |
| <b>Change in WC</b>                    | <b>1 824</b>  | <b>-2 811</b> | <b>-3 278</b> | <b>-3 829</b> | <b>-4 481</b> | <b>-5 251</b> |
| <i>% of Sales</i>                      | <i>0.7%</i>   | <i>-1.0%</i>  | <i>-1.0%</i>  | <i>-1.0%</i>  | <i>-1.0%</i>  | <i>-1.0%</i>  |
| <b>Taxes</b>                           | <b>19 651</b> | <b>22 908</b> | <b>28 109</b> | <b>33 613</b> | <b>39 072</b> | <b>46 107</b> |
| <i>Average Tax Rate</i>                | <i>18.2%</i>  | <i>18.2%</i>  | <i>18.2%</i>  | <i>18.2%</i>  | <i>18.2%</i>  | <i>18.2%</i>  |

Table 5.5 - Microsoft Forecast Assumptions. Source: Own work (2025)

### 5.2.2.6. Terminal Value

For the assumptions around the terminal value, computed according to equation 8, it was important to determine a long-term terminal growth rate. As an academically and industry well-grounded proxy for terminal growth, the long-term nominal GDP growth was assumed as the desired growth expectation.

This figure was formulated by a combination of the 10-year long-term US inflation expectations sourced from FRED (2025) and the long-term US real GDP growth derived from the IMF economic outlook and dataset projections (2025).

Specifically, the expected United States inflation rate of 2.3090%, based on the series EXPINF10YR from FRED, captures market consensus on inflation expectations over the coming decade.

Complementing this, the information related to the long-term nominal GDP growth rate is estimated at 1.9865%, obtained as the average annual growth projection from the IMF's US economy forecasts through 2030 (IMF, 2025).

The sum of these components yields a nominal terminal growth rate that anchors the valuation in realistic macroeconomic assumptions.

$$LT \text{ Growth Rate } (g) = (1 + 10Y \text{ Exp. Inflation}) \times (1 + \text{Avg. Real GDP Growth}) - 1 \quad (13)$$

Thus, the terminal growth rate was determined to be 4.3414%, seen in Table 5.6.

| Terminal Growth Rate        |                |
|-----------------------------|----------------|
| LT Inflation rate (10Y)     | 2.3090%        |
| Real GDP Growth Average     | 1.9865%        |
| <b>Terminal Growth Rate</b> | <b>4.3414%</b> |

Table 5.6 – Assumed Terminal Growth Rate. Source: Own work (2025)

## 5.3. Microsoft Enterprise and Equity Value

Microsoft's enterprise value was shaped from 2025 to 2029, resulting in free cash flows, underpinned by the aforementioned operational and financial assumptions, summed with the terminal value, according to equation 7, ultimately resulting in an enterprise value of \$3 357 931 million.

Consequently, to estimate the shareholders' worth, firstly, net debt had to be calculated, equation 11, by deducting the corporation's cash balance of \$75 543 million, as reported in FY24 balance sheet reporting, from gross debt of \$97 852 million, comprising both current and non-current debt and leases. Next in order, in line with equation 10, an equity value of \$3 335 622 million resulted. Lastly, we divide the equity value figure by the diluted shares outstanding and arrive at the implied equity value per share of \$ 446.60 as represented in Table 5.7.

| Cash Flow                         | FY2024        | 2025e         | 2026e         | 2027e          | 2028e          | 2029e            |
|-----------------------------------|---------------|---------------|---------------|----------------|----------------|------------------|
| <b>Operating Profit (EBIT)</b>    | 109 433       | 125 651       | 154 178       | 184 368        | 214 313        | 252 901          |
| <b>(-) Taxes</b>                  | 19 651        | 22 908        | 28 109        | 33 613         | 39 072         | 46 107           |
| <b>EBIT * (1-T)</b>               | 89 782        | 102 743       | 126 070       | 150 756        | 175 241        | 206 794          |
| (+) Deprec. & Amort.              | 22 287        | 29 800        | 34 750        | 40 593         | 47 496         | 55 659           |
| (-) CapEx                         | 44 477        | 66 968        | 81 968        | 84 666         | 89 615         | 94 515           |
| (-) Change in WC                  | 1 824         | -2 811        | -3 278        | -3 829         | -4 481         | -5 251           |
| <b>Free Cash Flow to the Firm</b> | <b>65 768</b> | <b>68 386</b> | <b>82 130</b> | <b>110 511</b> | <b>137 603</b> | <b>173 188</b>   |
| Discounted FCF                    |               | 63 052        | 69 817        | 86 617         | 99 438         | 115 393          |
| <b>Terminal Value</b>             |               |               |               |                |                | <b>4 387 940</b> |
| Present Value of Terminal Value   |               |               |               |                |                | 2 923 613        |
| <b>Enterprise Value</b>           |               |               |               |                |                | <b>3 357 931</b> |
| (+) Cash                          |               |               |               |                |                | 75 543           |
| (-) Debt                          |               |               |               |                |                | 97 852           |
| <b>Equity Value</b>               |               |               |               |                |                | <b>3 335 622</b> |
| Shares (Diluted), millions        |               |               |               |                |                | 7 469            |
| <b>Implied Share Price</b>        |               |               |               |                |                | <b>\$ 446.60</b> |

*Table 5.7 - Free Cash Flow to Firm Forecast. Source: Own work, FRED, IMF (2025)*

Therefore, it is to be concluded that our FCFE assessment yields a fair value per share of \$446.60, representing the stock to be undervalued by a discount of circa 6% from its market price \$421.50 (Nasdaq, 2025) at YE24, suggesting the following hypothesis: fundamental undervaluation due to temporary market concerns (macroeconomic uncertainty and geo-political instability); conservative market views: scepticism about Azure's potential; larger risk premium: market applying higher discount rates due to competitiveness and regulatory uncertainties or just plain DCF model optimism.

## 5.4. Sensitivity Analysis

Building on the earlier discussion of Section 2.2, it is clear that the result of the FCFE method inherits careful considerations and numerous assumptions that are derived from the discretion or biases of the analyst. Combating this, this chapter focuses on a sensitivity analysis, an evaluation tool that permits us to understand how a variation in the most pronounced variables could impact the computation of the final price output. In this case, the examination will analyse how a change in discount rate for the cash flows (WACC) and the Terminal Growth Rate (g) affects the company's projected financial

performance by ultimately supporting an identification of a range of possible price outcomes, thus guiding the investor to a more sensible and informed decision.

Strategic choice of these variables is predicated upon the essentiality of mitigating the valuation risk stemming from the current fluctuation of the reference risk-free rate and the uncertainty around growth prospects, both economic and enterprise-linked.

In the case of Microsoft, the figures present in Table 5.8 assume a variation of  $\pm 0.5\%$  in both the WACC and the TGR, with the TGR assuming a single maximum and minimum variation of 1 percentage point. Output of the performed sensitivity analysis demonstrates that the year-end 2024 stock price close (\$421.50) is slightly lower than most of the depicted price points, as shown by the forty-five green-coloured scenarios which resulted from fluctuating assumptions about the Terminal Growth Rate and WACC.

| Stock Price          |       | WACC    |        |        |        |        |        |        |        |        |
|----------------------|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| USD                  | 446.6 | 6.89%   | 7.25%  | 7.63%  | 8.04%  | 8.46%  | 8.88%  | 9.33%  | 9.79%  | 10.28% |
| Terminal Growth Rate | 3.34% | 541.91  | 489.00 | 442.98 | 402.67 | 367.10 | 336.99 | 309.99 | 285.66 | 263.67 |
|                      | 3.72% | 602.07  | 537.31 | 482.15 | 434.66 | 393.42 | 358.96 | 328.41 | 301.18 | 276.78 |
|                      | 3.92% | 639.02  | 566.46 | 505.42 | 453.43 | 408.67 | 371.58 | 338.90 | 309.94 | 284.13 |
|                      | 4.12% | 683.57  | 601.09 | 532.73 | 475.21 | 426.22 | 385.98 | 350.80 | 319.82 | 292.38 |
|                      | 4.34% | 738.25  | 642.85 | 565.16 | 500.77 | 446.60 | 402.55 | 364.38 | 331.03 | 301.68 |
|                      | 4.56% | 803.11  | 691.33 | 602.17 | 529.51 | 469.24 | 420.79 | 379.20 | 343.17 | 311.69 |
|                      | 4.79% | 885.62  | 751.41 | 647.11 | 563.83 | 495.89 | 442.02 | 396.29 | 357.05 | 323.04 |
|                      | 5.03% | 993.96  | 827.74 | 702.74 | 605.45 | 527.68 | 467.01 | 416.18 | 373.05 | 336.03 |
|                      | 5.34% | 1188.09 | 957.66 | 793.88 | 671.66 | 577.08 | 505.14 | 446.08 | 396.78 | 355.08 |

Table 5.8 - Stock price sensitivity analysis. Source: Own work (2025)

Most test results, ~55.6% of the sample, indicate that the current share price has a potential upside to what the sensitivity analysis justifies, advocating a buying opportunity. Nevertheless, this modest yielded share price premium indicates both limited fundamental upside and limited market downside compared to market price, it can be concluded that such result makes for a balanced risk-to-reward scenario where the stock price indicates a perceived undervaluation, possibly correlated to the overall scepticism view on growth prospect of AI and Cloud computing, where Microsoft has shown a significant scale-up of capital allocation, while offering potential limited downside based on historically linked key assumptions.

## 5.5. Scenario Analysis

In this chapter, in addition to the aim of producing a fair expected value for an asset, an attempt is made to measure and quantify multiple trajectories of value, based on plausible upside (bull case) or downside (bear case). Each of these scenarios aims to test and prove the company's valuation under optimistic economic conditions, conjoined with the execution of company-specific projects and an alternative restrictive, overall negative projection.

Within this framework of valuation, this analysis adjusted to key value drivers was undertaken for Microsoft, those being: revenue growth, operating income, depreciation and amortisation, capex/sales ratio, change in working capital, and the average tax rate.

### 5.5.1. Bear Case

This scenario embodies disruptive competitive innovations, linked to possible execution risk, broader economic headwinds disrupting operating margins, and reduced worldwide IT spending, and ultimately overall delay of AI adoption and digitalisation.

#### 5.5.1.1. Assumptions

Bearish-like assumptions, present in Table 5.9 and Table 5.10, were taken, as such, projected revenue CAGR of circa 12.5% (vs. 16.9% in the base case), comprising a weighted average of segment revenue expectations and EBIT margin of 44.3% (vs. 46.6% in the base case), categorised by:

Productivity and Business Processes, to experience a revenue CAGR of 10.0% (vs. 17.8% base) and average EBIT margin of 52.2% (vs. 56.4%), even though experiencing revenue growth, contraction against the base case reflects a slower adoption of the company's AI agent and intensification of competition, with pricing issues leading to compression of margins.

Intelligent Cloud, to experience a revenue CAGR of 18.0% (vs. 20.8%) and average EBIT margin of 41.4% (vs. 44.8% base case), reflecting a deceleration in enterprise cloud migration, gain of market share by AWS and Google, and below expected AI spending. Margins could contract due to high capital expenditure requirements amidst weaker demand and competitive pricing pressure.

More Personal Computing, projected to produce a revenue CAGR of 6% (vs. 7% base case) and average EBIT margin of 23.0% (vs. 24.9% base case) based on constraints on the supply of hardware, weakened consumer spending, leading to softening of gaming and PC related revenue as the cycle of life could extend, making revenue stagnate. Operating margins may decline due to intensified competition on mobile platforms, difficulties in passing on cost inflation, and improved software alternatives.

| Bear Case                                  | FY2024       | 2025e        | 2026e        | 2027e        | 2028e        | 2029e        | CAGR         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Revenue Growth</b>                      | <b>13.5%</b> | <b>12.7%</b> | <b>10.9%</b> | <b>11.1%</b> | <b>11.2%</b> | <b>11.4%</b> | <b>12.5%</b> |
| <i>Productivity and Business Processes</i> | <i>13.5%</i> | <i>12.7%</i> | <i>10.0%</i> | <i>10.0%</i> | <i>10.0%</i> | <i>10.0%</i> | <b>10.0%</b> |
| <i>Intelligent Cloud</i>                   | <i>19.9%</i> | <i>21.0%</i> | <i>18.0%</i> | <i>18.0%</i> | <i>18.0%</i> | <i>18.0%</i> | <b>18.0%</b> |
| <i>More Personal Computing</i>             | <i>13.4%</i> | <i>7.5%</i>  | <i>6.0%</i>  | <i>6.0%</i>  | <i>6.0%</i>  | <i>6.0%</i>  | <b>6.0%</b>  |

Table 5.9 - Bear Case Revenue Growth Forecast. Source: Own work (2025)

| Bear Case, USD Millions                    | FY2024         | 2025e          | 2026e          | 2027e          | 2028e          | 2029e          |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Total EBIT</b>                          | <b>109 433</b> | <b>116 064</b> | <b>143 196</b> | <b>163 739</b> | <b>182 122</b> | <b>205 764</b> |
| <b>EBIT Margin</b>                         | <b>44.6%</b>   | <b>41.3%</b>   | <b>45.4%</b>   | <b>46.2%</b>   | <b>45.6%</b>   | <b>45.7%</b>   |
| <i>Productivity and Business Processes</i> | 59 661         | 61 246         | 75 482         | 84 487         | 91 856         | 101 143        |
| <i>EBIT Margin</i>                         | 55.9%          | 55.0%          | 57.0%          | 58.0%          | 57.3%          | 57.4%          |
| <i>Intelligent Cloud</i>                   | 37 813         | 42 080         | 51 964         | 62 680         | 72 876         | 86 103         |
| <i>EBIT Margin</i>                         | 43.2%          | 43.0%          | 45.0%          | 46.0%          | 45.3%          | 45.4%          |
| <i>More Personal Computing</i>             | 11 959         | 12 738         | 15 750         | 16 572         | 17 389         | 18 518         |
| <i>EBIT Margin</i>                         | 23.5%          | 25.2%          | 27.2%          | 27.0%          | 26.7%          | 26.9%          |

Table 5.10 - Bear Case EBIT & Margin Forecast. Source: Own work (2025)

From Table 5.11, it is denoted that the worst-case scenario assumes a higher CapEx intensity, with the CapEx-to-sales ratio set at approximately +7.5% of the base case level (CapEx/Sales = 1.075 x base), capturing a scenario where Microsoft faces increased investment due to compliance with regulatory requirements, or addresses competitive pressures without commensurate revenue gains. Change in working capital is set at a positive 1% of sales in the bear case, signalling higher cash tied up in receivables or other short-term assets relative to liabilities, leading to reduced operating cash flow. Increased fiscal requirements of a 19.6% tax rate (vs. 18.2%), impacting net income and free cash flow, further weighing on valuations.

| Bear Case, USD Millions | FY2024        | 2025e         | 2026e         | 2027e         | 2028e         | 2029e         |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>D&amp;A</b>          | <b>22 287</b> | <b>29 766</b> | <b>33 408</b> | <b>37 562</b> | <b>42 307</b> | <b>47 736</b> |
| <i>% of sales</i>       | 9.1%          | 10.6%         | 10.6%         | 10.6%         | 10.6%         | 10.6%         |
| <b>CapEx</b>            | <b>44 477</b> | <b>71 908</b> | <b>84 713</b> | <b>84 221</b> | <b>85 811</b> | <b>87 140</b> |
| <i>% of Sales</i>       | 18.1%         | 25.6%         | 26.9%         | 23.8%         | 21.5%         | 19.4%         |
| <b>Change in WC</b>     | <b>1 824</b>  | <b>2 808</b>  | <b>3 152</b>  | <b>3 544</b>  | <b>3 991</b>  | <b>4 503</b>  |
| <i>% of Sales</i>       | 0.7%          | 1.0%          | 1.0%          | 1.0%          | 1.0%          | 1.0%          |
| <b>Taxes</b>            | <b>19 651</b> | <b>22 747</b> | <b>28 065</b> | <b>32 091</b> | <b>35 693</b> | <b>40 327</b> |
| <i>Average Tax Rate</i> | 18.2%         | 19.6%         | 19.6%         | 19.6%         | 19.6%         | 19.6%         |

Table 5.11 - Microsoft Bear Case Forecast Assumptions. Source: Own work (2025)

### 5.5.1.2. Result

Output for the bear case valuation reflects a more conservative outlook, with a resultant terminal value of approximately \$3 079 087 million, leading to an enterprise value of about \$2 364 021 million and an equity value of \$2 341 712 million. Based on the current share count, this translates to an implied share price of \$313.52 (vs. \$446.60 base case).

| Cash Flow - Bear, USD Millions | FY2024        | 2025e         | 2026e         | 2027e         | 2028e         | 2029e            |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|------------------|
| <b>Operating Profit (EBIT)</b> | 109 433       | 116 064       | 143 196       | 163 739       | 182 122       | 205 764          |
| <b>(-) Taxes</b>               | 19 651        | 22 747        | 28 065        | 32 091        | 35 693        | 40 327           |
| <b>EBIT * (1-T)</b>            | 89 782        | 93 317        | 115 131       | 131 649       | 146 428       | 165 437          |
| (+) Deprec. & Amort.           | 22 287        | 29 766        | 33 408        | 37 562        | 42 307        | 47 736           |
| (-) CapEx                      | 44 477        | 71 908        | 84 713        | 84 221        | 85 811        | 87 140           |
| (-) Change in WC               | 1 824         | 2 808         | 3 152         | 3 544         | 3 991         | 4 503            |
| <b>Free Cash Flow to Firm</b>  | <b>65 768</b> | <b>48 366</b> | <b>60 675</b> | <b>81 446</b> | <b>98 933</b> | <b>121 529</b>   |
| Discounted FCF                 |               | 44 594        | 51 579        | 63 836        | 71 494        | 80 973           |
| <b>Terminal Value</b>          |               |               |               |               |               | <b>3 079 087</b> |
| Present Value of TV            |               |               |               |               |               | 2 051 546        |
| <b>Enterprise Value</b>        |               |               |               |               |               | <b>2 364 021</b> |
| (+) Cash                       |               |               |               |               |               | 75 543           |
| (-) Debt                       |               |               |               |               |               | 97 852           |
| <b>Equity Value</b>            |               |               |               |               |               | <b>2 341 712</b> |
| Shares (Diluted)               |               |               |               |               |               | 7 469            |
| <b>Implied Share Price</b>     |               |               |               |               |               | <b>\$ 313.52</b> |

Table 5.12 - Bear Case Free Cash Flow to Firm Forecast. Source: Own work, FRED, IMF (2025)

This scenario underlines the risks and challenges Microsoft may face, providing investors with a less favourable test of value, due to factors as slower revenue growth, increased capital intensity, operational inefficiencies, and adverse tax conditions, yielding a lower implied share price that shows the potential ~-26% downside possibility to the \$421.50 price, as mentioned in Table 5.12.

### 5.5.2. Bull Case

Characterised by structural tech and AI-induced tailwinds, successful innovation, commercialisation, and monetisation. The bull case represents the best-case outlook, where conditions are seen in an optimistic manner.

### 5.5.2.1. Assumptions

For the bull scenario, the following assumptions were taken: projected revenue CAGR of circa 20.0% (vs. 16.9% in the base case), comprising a weighted average of segment revenue expectations and average EBIT margin of 48.3% (vs. 46.6% in the base case), categorised by:

Productivity and Business Processes is expected to experience a revenue CAGR of 20.0% (vs. 17.8% base) and average EBIT margin of 61.0% (vs. 56.4%), a change increase prompted by an increase of users by retention and monetisation of Copilot (AI agent) to corporate and individual users. Integration in Microsoft's main software solutions helps to create another enterprise moat that could lead to “longer subscriptions” and ultimately increase market share.

Intelligent Cloud to experience a revenue CAGR of 23.6% (vs. 20.8%) and average EBIT margin of 48.4% (vs. 44.8% base case), assuming that Azure and cloud solutions continue to grow at historical pace out measuring Amazon Web Services, taking the market leader positioning, due to recent factors such as synergies arising from newly constructed warehouses-like data centres and infrastructure to bolster AI scalability and improve overall efficiency.

More Personal Computing was projected to produce a revenue CAGR of 12% (vs. 7% base case) and average EBIT margin of 26.9% (vs. 24.9% base case) based on capitalization of videogame and content related synergies derived from the Activision acquisition further enhanced by the integration of AI services in the signature based content and overall success of the propagation of the XBOX ecosystem to windows— producing console and pc content.

Development of operating margin, present in Table 5.14, is consistent with operating leverage and improvements in bundling of services, resulting in operational gains related to increased market positioning, becoming a leader in the product group, and making price hikes to match potential inflation in operational costs.

| Bull Case                                  | FY2024       | 2025e        | 2026e        | 2027e        | 2028e        | 2029e        | CAGR         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Revenue Growth</b>                      | <b>13.5%</b> | <b>12.8%</b> | <b>16.5%</b> | <b>16.6%</b> | <b>16.7%</b> | <b>16.8%</b> | <b>20.0%</b> |
| <i>Productivity and Business Processes</i> | <i>13.5%</i> | <i>13.0%</i> | <i>20.0%</i> | <i>20.0%</i> | <i>20.0%</i> | <i>20.0%</i> | <b>20.0%</b> |
| <i>Intelligent Cloud</i>                   | <i>19.9%</i> | <i>21.0%</i> | <i>23.6%</i> | <i>23.6%</i> | <i>23.6%</i> | <i>23.6%</i> | <b>23.6%</b> |
| <i>More Personal Computing</i>             | <i>13.4%</i> | <i>7.5%</i>  | <i>12.0%</i> | <i>12.0%</i> | <i>12.0%</i> | <i>12.0%</i> | <b>12.0%</b> |

Table 5.13 - Bull Case Revenue Growth Forecast. Source: Own work (2025)

| <b>Bull Case, USD Millions</b>             | <b>FY2024</b>  | <b>2025e</b>   | <b>2026e</b>   | <b>2027e</b>   | <b>2028e</b>   | <b>2029e</b>   |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Total EBIT</b>                          | <b>109 433</b> | <b>135 839</b> | <b>164 186</b> | <b>201 212</b> | <b>239 658</b> | <b>289 752</b> |
| <b>EBIT Margin</b>                         | <b>44.6%</b>   | <b>48.3%</b>   | <b>48.7%</b>   | <b>49.8%</b>   | <b>49.4%</b>   | <b>49.7%</b>   |
| <i>Productivity and Business Processes</i> | <i>59 661</i>  | <i>71 771</i>  | <i>82 563</i>  | <i>100 814</i> | <i>119 572</i> | <i>143 629</i> |
| <i>EBIT Margin</i>                         | <i>55.9%</i>   | <i>59.5%</i>   | <i>61.6%</i>   | <i>62.7%</i>   | <i>62.0%</i>   | <i>62.0%</i>   |
| <i>Intelligent Cloud</i>                   | <i>37 813</i>  | <i>49 180</i>  | <i>63 632</i>  | <i>80 396</i>  | <i>97 911</i>  | <i>121 171</i> |
| <i>EBIT Margin</i>                         | <i>43.2%</i>   | <i>46.5%</i>   | <i>48.6%</i>   | <i>49.7%</i>   | <i>49.0%</i>   | <i>49.1%</i>   |
| <i>More Personal Computing</i>             | <i>11 959</i>  | <i>14 887</i>  | <i>17 991</i>  | <i>20 002</i>  | <i>22 175</i>  | <i>24 951</i>  |
| <i>EBIT Margin</i>                         | <i>23.5%</i>   | <i>27.3%</i>   | <i>29.4%</i>   | <i>29.2%</i>   | <i>28.9%</i>   | <i>29.0%</i>   |

**Table 5.14 - Bull Case EBIT & Margin Forecast. Source: Own work (2025)**

Bull case operational leverage assumptions, Table 5.15, consist of slightly reduced CapEx investments compared to the base case, specifically, -7% lower than the base case, reflecting efficiency gains from cloud infrastructure scaling, AI-driven automation, and economies of scale in data centre operations. Working capital improvements are also incorporated, where the change in working capital is set at -2% against the base -1%, indicating more efficient management of current assets, faster collections, and extended payables. Tax Efficiency, with an assumed rate of 16.9% (vs. 18.2%).

| <b>Bull Case, USD Millions</b> | <b>FY2024</b> | <b>2025e</b>  | <b>2026e</b>  | <b>2027e</b>  | <b>2028e</b>  | <b>2029e</b>   |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|
| <b>D&amp;A</b>                 | <b>22 287</b> | <b>32 611</b> | <b>39 072</b> | <b>46 865</b> | <b>56 277</b> | <b>67 655</b>  |
| <i>% of sales</i>              | <i>9.1%</i>   | <i>11.6%</i>  | <i>11.6%</i>  | <i>11.6%</i>  | <i>11.6%</i>  | <i>11.6%</i>   |
| <b>CapEx</b>                   | <b>44 477</b> | <b>62 296</b> | <b>78 343</b> | <b>83 091</b> | <b>90 260</b> | <b>97 657</b>  |
| <i>% of Sales</i>              | <i>18.1%</i>  | <i>22.2%</i>  | <i>23.3%</i>  | <i>20.6%</i>  | <i>18.6%</i>  | <i>16.7%</i>   |
| <b>Change in WC</b>            | <b>1 824</b>  | <b>-5 623</b> | <b>-6 737</b> | <b>-8 080</b> | <b>-9 703</b> | <b>-11 665</b> |
| <i>% of Sales</i>              | <i>0.7%</i>   | <i>-2.0%</i>  | <i>-2.0%</i>  | <i>-2.0%</i>  | <i>-2.0%</i>  | <i>-2.0%</i>   |
| <b>Taxes</b>                   | <b>19 651</b> | <b>22 998</b> | <b>27 797</b> | <b>34 066</b> | <b>40 575</b> | <b>49 056</b>  |
| <i>Average Tax Rate</i>        | <i>18.2%</i>  | <i>16.9%</i>  | <i>16.9%</i>  | <i>16.9%</i>  | <i>16.9%</i>  | <i>16.9%</i>   |

**Table 5.15 - Microsoft Bull Case Forecast Assumptions. Source: Own work (2025)**

### 5.5.2.2. Result

Fundamentally, the best-case scenario for Microsoft culminated in a terminal value of approximately \$5 633 725 million, translating into an enterprise value of \$4 307 221 million and an equity value of \$4 284 912 million. Based on the current number of shares outstanding, it yielded an estimated share price of \$573.69 (vs. \$446.60).

This scenario embodied solely optimistic assumptions regarding revenue growth and improved operational profitability, efficient capital expenditure, working capital improvements, and tax planning, which collectively enhanced free cash flow generation. The resulting share price projection indicates significant upside potential (~+36%) relative to the \$ 421.50 price, supporting a favourable investment thesis under the bull scenario described in Table 5.16.

| Cash Flow - Bull, USD Millions | FY2024        | 2025e         | 2026e          | 2027e          | 2028e          | 2029e            |
|--------------------------------|---------------|---------------|----------------|----------------|----------------|------------------|
| <b>Operating Profit (EBIT)</b> | 109 433       | 135 839       | 164 186        | 201 212        | 239 658        | 289 752          |
| <b>(-) Taxes</b>               | 19 651        | 22 998        | 27 797         | 34 066         | 40 575         | 49 056           |
| <b>EBIT * (1-T)</b>            | 89 782        | 112 841       | 136 389        | 167 146        | 199 083        | 240 696          |
| (+) Deprec. & Amort.           | 22 287        | 32 611        | 39 072         | 46 865         | 56 277         | 67 655           |
| (-) CapEx                      | 44 477        | 62 296        | 78 343         | 83 091         | 90 260         | 97 657           |
| (-) Change in WC               | 1 824         | -5 623        | -6 737         | -8 080         | -9 703         | -11 665          |
| <b>Free Cash Flow to Firm</b>  | <b>65 768</b> | <b>88 779</b> | <b>103 854</b> | <b>139 001</b> | <b>174 803</b> | <b>222 359</b>   |
| Discounted FCF                 |               | 81 854        | 88 285         | 108 946        | 126 322        | 148 154          |
| <b>Terminal Value</b>          |               |               |                |                |                | <b>5 633 725</b> |
| Present Value of TV            |               |               |                |                |                | 3 753 660        |
| <b>Enterprise Value</b>        |               |               |                |                |                | <b>4 307 221</b> |
| (+) Cash                       |               |               |                |                |                | 75 543           |
| (-) Debt                       |               |               |                |                |                | 97 852           |
| <b>Equity Value</b>            |               |               |                |                |                | <b>4 284 912</b> |
| Shares (Diluted)               |               |               |                |                |                | 7 469            |
| <b>Implied Share Price</b>     |               |               |                |                |                | <b>\$ 573.69</b> |

Table 5.16 - Bull Case Free Cash Flow to Firm Forecast. Source: Own work, FRED, IMF (2025)

## 5.6. Limitations

In empirical research, it is essential to acknowledge the inherent limitations that a study could yield, those being either related to the scope of the analysis or the interpretation of findings. This section outlines the principal constraints in this valuation, establishing transparency and a pathway for future research. Specifically, the following limitations have been recognised and could lead to further investigation:

Temporal limitation, where the provided analysis and projections have been calculated for a sole 5-year period, as AI forecasts are still highly uncertain, and monetisation of such has just recently been achieved and could lead to further structural changes in businesses.

Terminal Growth Value Uncertainty: In the presented case, the weighted value of the terminal value represents >80% of the company's value in the DCF model, and small assumptions on terminal growth value can heavily change the outcome of the framework.

AI speculation and growth projections: The emerging nature of AI as the lead driver of technology and overall digitalisation, it could be theorised that its current market value is heavily driven by market hype instead of fundamental value, or the absolute contrary, where growth values do not capture the full capacity and monetisation of AI and its adjacent services. AI has positively impacted the earnings and revenue for companies, although it has left a significant challenge for DCF valuations as the model is highly dependent on historical data terms in order to forecast future cash flows. As such, the following points stand out as important considerations to bear in mind while performing a DCF for Microsoft: large training costs and constant need for infrastructure development. To complement the exceeding demand for AI models, the firm must continue to expend large amounts of financial resources while creating partnerships with different AI companies, as the OpenAI partnership with Microsoft, as well as challenges like infrastructure impediments and escalation of CapEx, which could alter cashflow projections and ultimately the DCF model result.

Integration of Market Sentiment Analytics: A model which can combine the traditional, well-grounded valuation frameworks with current sentiment analysis from news, social media, or trading data to enhance short- and medium-term equity forecasts.

Peer benchmarks: Although being inserted in the technological sector and the IT industry, its unique enterprise moat, complex revenue sources and market maturity make it unlikely to find a truly comparable peer. Notably, a broader peer group was considered as those companies bring some homologous context that could be benchmarked.



## 6. Relative Valuation

Triangulating the DCF valuation presented in the previous chapter, a multiples method analysis was adopted as a step to further refine the implied share price. Inside this section, two different dated valuations were performed with ratios presented here, which are based on the bulletins reported for year-end 2024 (31/12/2024) and fiscal year 2025 (30/06/2025).

Motive for relative valuation includes the fact that quantification and valuation of a tech company imply dealing with R&D and impairment of assets (non-cash charges) that create implications to cash flows, since the balance sheet of tech companies is predominantly composed of intangible assets where their substantial value derives from software solutions, databases, and intellectual property rights. Complexity arises when assuming values around intangible assets, as their actual future value is highly speculative, and is related to their future potential rather than current performance, occurring as a limitation on the DCF model. An alternative relative valuation was chosen to corroborate results and harmonise potential result distortions, as it aims to provide a more objective measure of value by similarity instead of purely subjective assumptions.

### 6.1. Multiples Valuation - (31/12/2024)

#### 6.1.1. Peers Group

Peer group choice is crucial for a multiples/relative valuation; therefore, for this study, seven companies, in Table 6.1, were chosen as comparable due to their business industry, similar revenue sources, operational characteristics, risk profiles, and market dynamics. Microsoft Corporation operates in the technology sector and more specifically in the IT industry, as mentioned by their management, benchmark performance is measured against key competitors in investor relations and earnings calls (Microsoft, 2023).

| Company    | Ticker | Sector            | Industry                        |
|------------|--------|-------------------|---------------------------------|
| Amazon     | AMZN   | Consumer Cyclical | Internet Retail                 |
| Alphabet   | GOOG   | Technology        | Internet Content & Information  |
| Meta       | META   | Technology        | Internet Content & Information  |
| Oracle     | ORCL   | Technology        | Software - Infrastructure       |
| Salesforce | CRM    | Technology        | Software - Application          |
| IBM        | IBM    | Technology        | Information Technology Services |
| Apple      | AAPL   | Technology        | Consumer Electronics            |
| Microsoft  | MSFT   | Technology        | Software - Infrastructure       |

Table 6.1 - Microsoft peer group's sector and industry. Source: Own work, Yahoo Finance (2025)

This choice of competitors is also, industry viewed, as corporates poised to experience similar growth trends as their revenue sources derive from either AI monetisation, SaaS solutions, cloud solutions, and overall digitalisation of the world.

### 6.1.2. Comparable Data

This critical triangulation is focused on ratios linked to the Enterprise Value, Revenues, EBITDA, Net Income, and Share Price. Those being: EV/Sales, EV/EBITDA, and the price-to-earnings ratio.

Furthermore, to ensure comparability between different companies and their multiples, a calendarization of financial data was performed to mitigate timing differences between comparable companies. Unadjusted valuation multiples reported at different fiscal periods can result in inaccurate comparisons due to several factors, such as business cycles, macroeconomic conditions, or seasonality. Without this time weighting adjustment, the analysis might reflect differences due to timing rather than differences in fundamental performance.

As Microsoft's fiscal year ends on June 30th and most of its peers have their fiscal year end on December 31st, a calendarization of Microsoft's data was computed by summing the reported data from the last two quarters of fiscal year 2024 (H2'FY24) and the first two quarters of fiscal year 2025 (H1'FY25). This method ensures that the achieved multiples reflect the entire targeted period (January to December 2024). It was performed for the company's revenue, EBITDA, and Net Income.

$$\text{Calendarized EBITDA} = \text{EBITDA}_{H2'FY2024} + \text{EBITDA}_{H1'FY2025} \quad (14)$$

$$\text{Enterprise Value (EV)} = \text{Equity Value} + \text{Net Debt} \quad (15)$$

$$\text{Price to Earnings} \left( \frac{P}{E} \right) = \frac{\text{Equity Value}}{\text{Net Income}} \quad (16)$$

| Data Calendarization | Market Data   |                  |              |                  | Financials     |                |               |
|----------------------|---------------|------------------|--------------|------------------|----------------|----------------|---------------|
|                      | Share Price   | Equity Value     | Net Debt     | EV               | Revenue        | EBITDA         | Net Income    |
| H2 FY24 (30/06/2024) | -             | -                | 22309        |                  | 126 585        | 65 626         | 43 975        |
| H1 FY25 (31/12/2024) | 423.20        | 3 160 881        | 31354        |                  | 135 217        | 76 415         | 48 775        |
| <b>Adjusted YE24</b> | <b>423.20</b> | <b>3 160 881</b> | <b>31354</b> | <b>3 192 235</b> | <b>261 802</b> | <b>142 041</b> | <b>92 750</b> |

Table 6.2 - Calendarization of both MSFT's market and financial data. Source: Own work, TIKR.com (2025)

The collected data in Table 6.3 reports the share price in units of USD, while the remaining figures are in millions of USD. Financial figures were taken from each of the companies' earnings reports and their respective share trading close price on December 30<sup>th</sup>, 2024 (last trading day of the year).

| Company        | Ticker | Market Data   |                    |                  |              |                  |
|----------------|--------|---------------|--------------------|------------------|--------------|------------------|
|                |        | Share Price   | Shares Outstanding | Equity Value     | Net Debt     | Enterprise Value |
| Amazon         | AMZN   | 221.30        | 10721              | 2 372 557        | 58368        | 2 430 925        |
| Alphabet       | GOOG   | 192.69        | 13313              | 2 565 282        | (67520)      | 2 497 762        |
| Meta           | META   | 591.24        | 2614               | 1 545 501        | (28046)      | 1 517 455        |
| Oracle         | ORCL   | 165.88        | 2823               | 468 279          | 83753        | 552 032          |
| Salesforce     | CRM    | 334.68        | 984                | 329 325          | (1962)       | 327 363          |
| IBM            | IBM    | 217.35        | 937                | 203 657          | 58396        | 262 053          |
| Apple          | AAPL   | 251.31        | 15408              | 3 872 184        | (37591)      | 3 834 593        |
| Microsoft (A)* | MSFT   | <b>423.20</b> | <b>7469</b>        | <b>3 160 881</b> | <b>31354</b> | <b>3 192 235</b> |

Table 6.3 - Comparable Market Data. Source: Own work, TIKR.com (2025)

With the information provided in Table 6.3 and Table 6.4, which reports the financial data for the companies, the following valuation multiples were easily calculated: EV/Sales and EV/EBITDA, both linked to enterprise value, and P/E, which is directly connected to Equity Value.

| Company        | Financials     |                |               | Valuation    |              |              |
|----------------|----------------|----------------|---------------|--------------|--------------|--------------|
|                | Revenue        | EBITDA         | Net Income    | EV/Sales     | EV/EBITDA    | P/E          |
| Amazon         | 574 785        | 121 395        | 59 248        | 4.2x         | 20.0x        | 40.0x        |
| Alphabet       | 349 807        | 127 490        | 100 118       | 7.1x         | 19.6x        | 25.6x        |
| Meta           | 164 501        | 85 267         | 62 360        | 9.2x         | 17.8x        | 24.8x        |
| Oracle         | 52 961         | 21 227         | 10 467        | 10.4x        | 26.0x        | 44.7x        |
| Salesforce     | 34 860         | 11 143         | 4 136         | 9.4x         | 29.4x        | 79.6x        |
| IBM            | 62 800         | 12 886         | 6 023         | 4.2x         | 20.3x        | 33.8x        |
| Apple          | 391 035        | 134 661        | 93 736        | 9.8x         | 28.5x        | 41.3x        |
| Microsoft (A)* | <b>261 802</b> | <b>142 041</b> | <b>92 750</b> | <b>12.2x</b> | <b>22.5x</b> | <b>34.1x</b> |

Table 6.4 - Comparable Financial Data and Multiples. Source: Own work, TIKR.com (2025)

After collecting the relevant valuation multiples from the selected enterprise group, both an average and a median of the results are calculated, with each proving its worth in this context.

The average of results provides a central figure that is highly sensitive to outliers in the range of figures, either exceptionally high or low multiples, that could distort the overall picture of the valuation. This sensitivity is addressed by the median multiples that represent the middle value in the range of figures, making the sample of results immune to high deviances.

| Peer Multiples | EV/Sales | EV/EBITDA | P/E   |
|----------------|----------|-----------|-------|
| <b>Average</b> | 7.8x     | 23.1x     | 41.4x |
| <b>Median</b>  | 9.2x     | 20.3x     | 40.0x |

*Table 6.5 - Average and Median Peer Multiples. Source: Own work (2025)*

By utilising the peer multiples, Table 6.5 shows the yielded results for the application of such with Microsoft's financial data.

### 6.1.3. Average Multiples Analysis

Applying the average EV/Sales multiple yields an implied Enterprise Value of USD 2 034 billion. After deducting the calendarized net debt of USD 31 354 million, the resulting market value/equity value is USD 2 003 billion. On a per-share basis, this corresponds to an implied share price of USD 268.

Analogously, employing the average EV/EBITDA multiple results in an Enterprise Value of USD 3 279 billion. The resulting market value, after accounting for net debt, is USD 3 248 billion, which translates to an implied share price of USD 435.

Lastly, the average P/E multiple implies an Enterprise Value of USD 3 873 billion. The corresponding market value of USD 3 842 billion equates to an implied share price of USD 514.

### 6.1.4. Median Multiples Analysis

Employing the median EV/Sales, as shown in Table 6.5, it produces an Enterprise Value of USD 2 415 billion. Deducting net debt leads to a market value of USD 2 384 billion, which yields an implied price of USD 319 per issued share.

Similarly, using the median EV/EBITDA multiple, implied Enterprise Value of USD 2 889 billion and a net debt adjusted market value of USD 2 857 billion, corresponding to a per-share value of USD 383.

Lastly, the median P/E multiple produces an Enterprise Value of USD 3 745 billion, after subtracting net debt, the market value achieved is USD 3 714 billion, and the implied share price amounts to USD 497.

### 6.1.5. Multiples Result

Finally, as a smoothing measure for the achieved share prices, it was assumed that the implied fair value per issued share would be composed of an arithmetic mean of both the average multiple EV/EBITDA and the P/E results.

| Average              | EV/Sales      | EV/EBITDA     | P/E           | Median               | EV/Sales      | EV/EBITDA     | P/E           |
|----------------------|---------------|---------------|---------------|----------------------|---------------|---------------|---------------|
| <b>Implied EV</b>    | 2 034 109     | 3 279 319     | 3 873 006     | <b>Implied EV</b>    | 2 415 018     | 2 888 582     | 3 745 483     |
| <b>Net Debt</b>      | 31 354        | 31 354        | 31 354        | <b>Net Debt</b>      | 31 354        | 31 354        | 31 354        |
| <b>Market Value</b>  | 2 002 755     | 3 247 965     | 3 841 652     | <b>Market Value</b>  | 2 383 664     | 2 857 228     | 3 714 129     |
| <b>Issued Shares</b> | 7 469         | 7 469         | 7 469         | <b>Issued Shares</b> | 7 469         | 7 469         | 7 469         |
| <b>Share Price</b>   | <b>\$ 268</b> | <b>\$ 435</b> | <b>\$ 514</b> | <b>Share Price</b>   | <b>\$ 319</b> | <b>\$ 383</b> | <b>\$ 497</b> |

*Table 6.6 - Microsoft Valuation via Implied Multiples. Source: Own work (2025)*

The decision to exclude the EV/Sales multiple from the final calculation is justified by the distinct characteristics of the sector where Microsoft operates. Damodaran (2012) highlighted that sales-based multiples could be unreliable for valuing high-growth and capital-intensive corporates whose margins vary widely, and high investments in intangible assets and R&D lack the clear tangibility of their revenue returns.

Moreover, EV/EBITDA and P/E as multiples are the preferred choice due to their composition. Tech companies' value is largely tied to their intangible assets, and their accounting treatment can vary significantly between companies, creating large non-cash effects that distort net earnings and, in due course, their valuation. It is also important to mention that operational profitability and cash flow metrics provide a more meaningful representation of value creation, particularly in contexts where revenue recognition is ambiguous and monetisation is not immediate (Penman, 2013).

Although influenced by net earnings volatility, the P/E ratio is an analyst-favourite multiple as it allows for a comprehensive illustration of the company's ability to convert its revenues into shareholder earnings, considering the constraints of its capital structure, and the ratio's ability to capture forward-looking expectations through the relationship between current price and anticipated future earnings (Penman, 2013).

All in all, it is concluded that from the Multiples Valuation Model, a fair value for each of Microsoft Corporation's shares should be in the range of USD 440 and USD 475 (<10% confidence interval), according to Table 6.7.

|  | EV/EBITDA | P/E    | Average       |
|--|-----------|--------|---------------|
| <b>Implied Value Per Share (Average)</b> | \$ 383    | \$ 497 | <b>\$ 440</b> |
| <b>Implied Value Per Share (Median)</b>  | \$ 435    | \$ 514 | <b>\$ 475</b> |

Table 6.7 - Microsoft Multiples Valuation. Source: Own work (2025)

## 6.2. Multiples Valuation - (31/06/2025)

Since the inception of this study, another fiscal year for MSFT has finished, and the nature of the multiples implies that an updated valuation should be performed after each reporting release.

It is important to mention that the chosen price for this analysis is the close price just after the release of the financial reporting, on 31/07/2025, rather than the current market price on the day of this analysis. Motivation for such derives from potential price deviations originating from exogenous market factors that include noise from unrelated market events and distortions from factors beyond the fundamental data released. Thus, preference for post-reporting price ensures a cleaner, more accurate reflection of the asset's value based on fresh information that reflects the market's immediate reaction to the latest financial information, offering undistortion to valuation multiples like P/E, Price-to-Book, or Price-to-Cash Flow, making the relative valuation more reliable and meaningful.

For each of the previously selected peers, the share close price assumed was of July 31, 2025, and the financial metrics as of the trailing twelve months to June 30, 2025, sourced from TIKR. Fetched metrics were, as shown in Table 6.8, EPS, Book Value per Share, and Free Cash Flow per Share.

| Company           | Ticker      | Market Data   |              |                      |               | Valuation     |               |                |
|-------------------|-------------|---------------|--------------|----------------------|---------------|---------------|---------------|----------------|
|                   |             | Share Price   | EPS          | Book Value per Share | FCF per Share | P/E           | Price to Book | Price to FCF   |
| <b>Amazon</b>     | AMZN        | 234.11        | 6.14         | 28.82                | 50 849        | 38.13x        | 8.12x         | 0.0046x        |
| <b>Alphabet</b>   | GOOG        | 192.86        | 8.96         | 28.41                | 64 782        | 21.52x        | 6.79x         | 0.0030x        |
| <b>Meta</b>       | META        | 773.44        | 25.59        | 73.22                | 37 177        | 30.22x        | 10.56x        | 0.0208x        |
| <b>Oracle</b>     | ORCL        | 253.77        | 4.26         | 6.17                 | 7 363         | 59.57x        | 41.13x        | 0.0345x        |
| <b>Salesforce</b> | CRM         | 258.33        | 6.39         | 63.19                | 14 880        | 40.43x        | 4.09x         | 0.0174x        |
| <b>IBM</b>        | IBM         | 253.15        | 5.85         | 28.97                | 11 715        | 43.27x        | 8.74x         | 0.0216x        |
| <b>Apple</b>      | AAPL        | 207.57        | 6.40         | 4.47                 | 97 251        | 32.43x        | 46.44x        | 0.0021x        |
| <b>Microsoft</b>  | <b>MSFT</b> | <b>533.50</b> | <b>13.64</b> | <b>43.30</b>         | <b>56 388</b> | <b>39.11x</b> | <b>12.32x</b> | <b>0.0095x</b> |

Table 6.8 - Microsoft (FY25) Multiples Valuation. Source: Own work, TIKR (2025)

To reduce the effect of outliers and skewed data in the peer group, median and average multiples were calculated across the peer companies as Table 6.9 displays.

|                | P/E    | Price / Book | Price / FCF |
|----------------|--------|--------------|-------------|
| <b>Average</b> | 37.94x | 17.98x       | 0.0149x     |
| <b>Median</b>  | 38.1x  | 8.7x         | 0.0174x     |

*Table 6.9 - Average and Median Peer Multiples (30/06/2025). Source: Own work (2025)*

The achieved multiples derived from the peer group were applied to Microsoft's corresponding financial metrics (EPS x P/E, Book Value per Share x P/B, CFPS x P/FCF) to estimate its implied share price.

| Average Valuation Multiple     | Peer Multiple | MSFT Multiple | Implied Share Price | Median Valuation Multiple      | Peer Multiple | MSFT Multiple | Implied Share Price |
|--------------------------------|---------------|---------------|---------------------|--------------------------------|---------------|---------------|---------------------|
| <b>Price to Earnings (P/E)</b> | 37.94x        | 13.64x        | <b>517.50</b>       | <b>Price to Earnings (P/E)</b> | 38.13x        | 12.94x        | <b>493.38</b>       |
| <b>Price to Book (P/B)</b>     | 17.98x        | 43.30x        | <b>778.58</b>       | <b>Price to Book (P/B)</b>     | 8.74x         | 43.30x        | <b>378.37</b>       |
| <b>Price to FCF</b>            | 0.0149x       | 56 388        | <b>837.42</b>       | <b>Price to FCF</b>            | 0.0174x       | 56 388        | <b>978.93</b>       |

*Table 6.10 - Implied Share Price via Average and Median Multiples (30/06/2025). Source: Own work (2025)*

Differing from the end of the results obtained from the calendarized 2024 reporting, implied share prices across multiples suggest improvements in Microsoft's market views and improved valuation drivers reflecting enhanced earnings and better cash flow projections.

|  | Average          |
|--|------------------|
| <b>Implied Value Per Share (Average)</b> | <b>\$ 711.17</b> |
| <b>Implied Value Per Share (Median)</b>  | <b>\$ 616.89</b> |

*Table 6.11 - Implied Average Share Price for Average and Median Multiples (30/06/2025). Source: Own work (2025)*

All in all, it is deduced that from the up-to-date multiples valuation model, the fair value for each of Microsoft Corporation's shares should theoretically be in the range of \$616.89 and \$711.17 (~15% confidence interval), representing an upside potential range of approximately +16% to +33% from \$533.50, as according to Table 6.11.



## 7. Conclusion

This dissertation has carried out an examination of Microsoft Corporation through an equity research and valuation lens, contextualised within the innovative technology sector. Beginning with a thorough literature review, key valuation concepts such as DCF, FCFF, WACC, relative valuation, and M&A insights were explored to establish a robust analytical framework.

The detailed company background and business profile breakdown highlighted Microsoft's continuous strategic evolution, with emphasis on its cloud computing and artificial intelligence strategies, recurring revenue base, and fundamental acquisition activities. Industry and macroeconomic overviews provided critical context, enabling a nuanced understanding of the competitive landscape and broader economic forces influencing Microsoft's positioning. Critical to Microsoft's long-term value proposition is the transformative impact of the Activision-Blizzard acquisition, which has fundamentally strengthened the company's position in the gaming ecosystem and created substantial synergies through content integration with Xbox Game Pass and cloud gaming platforms. This strategic acquisition serves as a key driver for sustained growth in the More Personal Computing segment and represents a significant expansion of Microsoft's addressable market in entertainment and interactive media. Furthermore, this analysis identified the emergence of new competitive moats through Microsoft's strategic investments in artificial intelligence, GitHub, and LinkedIn, which collectively reinforce the company's ecosystem advantages and pricing power. The accelerating growth trajectory of Azure, which aims to outpace market leader AWS, positions Microsoft favourably in the high-growth cloud computing segment and underpins optimistic projections for the Intelligent Cloud business.

This foundation supported the application of detailed assumptions for the valuation methods applied in subsequent chapters. DCF valuation results were triangulated with a scenario analysis, sensitivity test and a multiples valuation to capture uncertainties and drive robust conclusions.

Based on the DCF - FCFF base method, applied to FY24 results, the estimated enterprise value of Microsoft is approximately \$3 357 931 million, while the corresponding equity value is assessed at \$3 357 931 million, which translates to an intrinsic value per share of \$446.60, representing an upside of +6%. Result reflects Microsoft's strong market position, diversified revenue streams, and future growth potential anchored in technological innovation. Adjacent to the base methodology, bear and bull cases were computed, resulting in a share price of \$313.52 and \$573.69, respectively, demonstrating possible downside for stressed conditions and a possible quantification of the best-case scenario. The sensitivity analysis of WACC and terminal growth rate parameters revealed that Microsoft's valuation exhibits moderate sensitivity to discount rate assumptions, reflecting both the company's established market position and the inherent volatility in current risk-free rates and market

risk premiums. These findings underscore the importance of carefully calibrated assumptions in navigating the current environment of fluctuating reference rates and uncertain growth prospects.

Comparable multiples analysis further complemented the assessment by benchmarking Microsoft alongside its relevant peers as of H1'25 (31/12/2024) and FY2025. As for the relative valuation models, firstly computed with H1'25 data, utilized multiples derived from the average and median peer multiple obtained by the quotient of enterprise value to revenue and EBITDA (EV/Sales and EV/EBITDA), which resulted in a share price range of \$440 to \$475, corroborating the result evidenced in the DCF model of upside potential. Secondly, as the nature of the relative valuation is based on the most recent information possible, the second analysis was performed with the average and median quotient of the peer's share price at 31/07/2025 against earnings, book value and free cash flow per share, yielding a share price range of \$616.89 to \$711.17 that concludes fundamental undervaluation compared to the market price of \$533.50.

This study, therefore, concludes that Microsoft is a BUY opportunity based on the practical applications. Recommendation is underpinned by a deep competitive moat, anchored by an extensive technological ecosystem, strategic investments in artificial intelligence, cloud infrastructure, and gaming content. Additionally, the company's "long-only" characterisation adds further support for valuation upside, as institutional interest provides a potential downside risk floor and a potential premium that amplifies with growth prospects.

Nevertheless, the study acknowledges several limitations, including temporal constraints, terminal value estimation uncertainty, speculation in AI growth projections, the challenge of accurately capturing synergies from recent acquisitions and strategic investments, limitations in incorporating market sentiment analytics, and peer benchmarking challenges. These factors highlight opportunities for future research to refine and extend the findings.

Ultimately, this dissertation contributes to an enhanced understanding of current drivers and nuances for technology sector valuations in periods of rapid technological transformation and macroeconomic conditions, offering practical investment insights for investors, individuals, and scholars.

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## Appendices

| Broker Consensus, USD Million              | 2022           | 2023           | 2024           | 2025E          | 2026E          | 2027E          |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Sales</b>                               | <b>198 270</b> | <b>211 915</b> | <b>245 122</b> | <b>276 568</b> | <b>313 364</b> | <b>351 178</b> |
| <i>Sales Growth</i>                        | 18,0%          | 6,9%           | 15,7%          | 12,8%          | 13,3%          | 12,1%          |
| <b>Productivity &amp; Business Process</b> | <b>63 364</b>  | <b>94 151</b>  | <b>106 820</b> | <b>116 323</b> | <b>127 998</b> | <b>142 071</b> |
| <i>% of Sales</i>                          | 32,0%          | 44,4%          | 43,6%          | 42,1%          | 40,8%          | 40,5%          |
| <b>Intelligent Cloud</b>                   | <b>75 251</b>  | <b>72 944</b>  | <b>87 464</b>  | <b>106 107</b> | <b>128 765</b> | <b>154 910</b> |
| <i>% of Sales</i>                          | 38,0%          | 34,4%          | 35,7%          | 38,4%          | 41,1%          | 44,1%          |
| <b>More Personal Computing</b>             | <b>59 655</b>  | <b>44 820</b>  | <b>50 838</b>  | <b>53 406</b>  | <b>55 404</b>  | <b>56 517</b>  |
| <i>% of Sales</i>                          | 30,1%          | 21,1%          | 20,7%          | 19,3%          | 17,7%          | 16,1%          |
| <b>EBITDA</b>                              | <b>97 843</b>  | <b>102 384</b> | <b>131 720</b> | <b>152 217</b> | <b>174 254</b> | <b>198 901</b> |
| <i>EBITDA margin</i>                       | 49,3%          | 48,3%          | 53,7%          | 55,0%          | 55,6%          | 56,6%          |
| <b>Net Income</b>                          | <b>72 738</b>  | <b>72 361</b>  | <b>88 136</b>  | <b>98 226</b>  | <b>111 715</b> | <b>130 111</b> |
| <i>Net Margin</i>                          | 36,7%          | 34,1%          | 36,0%          | 35,5%          | 35,7%          | 37,0%          |
| <b>CapEx</b>                               | <b>23 886</b>  | <b>28 107</b>  | <b>44 477</b>  | <b>63 711</b>  | <b>71 571</b>  | <b>76 082</b>  |
| <i>% Sales</i>                             | 12,0%          | 13,3%          | 18,1%          | 23,0%          | 22,8%          | 21,7%          |
| <b>NOCF</b>                                | <b>89 035</b>  | <b>87 582</b>  | <b>118 548</b> | <b>127 259</b> | <b>150 541</b> | <b>177 458</b> |
| <i>% EBITDA</i>                            | 91,0%          | 85,5%          | 90,0%          | 83,6%          | 86,4%          | 89,2%          |
| <b>FCF</b>                                 | <b>65 149</b>  | <b>64 291</b>  | <b>74 071</b>  | <b>67 500</b>  | <b>81 870</b>  | <b>96 844</b>  |
| <i>Net Change in Cash</i>                  | - 293          | 20 773         | - 16 389       | 21 209         | 41 387         | 57 390         |
| <b>Total Assets</b>                        | <b>364 840</b> | <b>411 976</b> | <b>512 163</b> | <b>583 835</b> | <b>678 737</b> | <b>794 126</b> |
| <i>Cash</i>                                | 104 757        | 111 262        | 75 543         | 84 652         | 122 729        | 211 013        |
| <b>Total Equity</b>                        | <b>166 542</b> | <b>206 223</b> | <b>268 477</b> | <b>337 085</b> | <b>422 242</b> | <b>521 700</b> |
| <b>Gross Debt</b>                          | <b>49 781</b>  | <b>47 237</b>  | <b>51 630</b>  | <b>44 669</b>  | <b>43 300</b>  | <b>42 569</b>  |
| <b>Net Debt</b>                            | - 54 976       | - 64 025       | - 23 913       | - 39 983       | - 79 429       | - 168 444      |
| <b>Equity Ratio</b>                        | <b>45,6%</b>   | <b>50,1%</b>   | <b>52,4%</b>   | <b>57,7%</b>   | <b>62,2%</b>   | <b>65,7%</b>   |
| <b>Net Leverage</b>                        | <b>-178%</b>   | <b>-160%</b>   | <b>-551%</b>   | <b>-381%</b>   | <b>-219%</b>   | <b>-118%</b>   |

Appendix A - Broker Consensus, Million USD (2022-2027E) (forecasted). Source: Own work, Bloomberg Terminal (2025)