



MICROSOFT CORPORATION FINANCIAL EVALUATION

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1. Company Overview and Financials

1.1 Introduction

Microsoft Corporation, founded by Bill Gates and Paul Allen in 1975, is one of the world's leading technology companies. With its headquarters in Redmond, Washington, Microsoft has played a pivotal role in shaping the digital landscape and revolutionizing various aspects of personal computing, business solutions, and cloud services.

1.2 Early Years and Milestones

Microsoft's journey began with the development of software for the Altair 8800 microcomputer. The company's big break came when it secured a deal to provide an operating system for IBM's first personal computer in 1980, leading to the creation of MS-DOS. However, it was the release of Windows 3.0 in 1990 that marked a turning point, providing a graphical user interface that made computers more accessible to the masses.

1.3 Microsoft's Influence on Computing

Microsoft's contributions have had far-reaching effects on technology:

- Windows OS: The Windows operating system became synonymous with personal computing, with subsequent versions (Windows 95, Windows XP, Windows 7, and beyond) enhancing user experiences and setting standards for graphical interfaces.
- Microsoft Office Suite: Microsoft Office (Word, Excel, PowerPoint, Outlook) revolutionized office productivity, becoming an essential toolset for businesses, professionals, and students worldwide.

1.4 Shift to the cloud Era

Microsoft's significance grew further with its strategic shift toward cloud computing and enterprise solutions:

- Azure Cloud: Microsoft's Azure platform emerged as a major player in cloud services, providing infrastructure, platform, and software services to businesses. It competes with Amazon Web Services (AWS) and Google Cloud.
- Office 365 and Microsoft 365: Microsoft transitioned to subscription-based models for its software, offering cloud-based versions of Office applications and integrated productivity tools.

1.5 Enterprise Solutions and Acquisitions

Microsoft expanded into enterprise solutions and acquired key companies to diversify its offerings:

- Acquisition of LinkedIn: Microsoft acquired LinkedIn, the professional networking platform, enabling integration with its productivity tools and enhancing business networking capabilities.
- Enterprise Software: Microsoft developed enterprise software solutions, including Dynamics 365 for customer relationship management (CRM) and enterprise resource planning (ERP).

1.6 Significance in the Technology Sector

Microsoft's impact on the technology sector is profound:

- Innovation: The company's products have consistently pushed the boundaries of innovation, setting industry standards and inspiring new developments.
- Economic Impact: Microsoft's software, platforms, and services have generated billions of dollars in revenue, driving economic growth and employment opportunities.
- Global Reach: Its products and services have a global reach, with users spanning industries, demographics, and geographies.

Microsoft Corp., stock price trends



2. Sector Overview

2.1 Introduction

Microsoft Corporation's history, from its early days of operating systems to its current position as a cloud computing and enterprise solutions leader, underscores its transformative role in the technology sector. The company's influence on personal computing, office productivity, and cloud services has been instrumental in shaping the modern digital landscape. As technology continues to evolve, Microsoft's legacy and contributions remain integral to the ongoing advancement of the industry.

2.2 Core Business

Microsoft Corporation operates in three core business segments, each contributing to its overall revenue and strategic focus. These segments encompass a wide range of products and services that cater to various aspects of personal computing, enterprise solutions, and cloud computing.

1. Productivity and Business Processes:

This segment focuses on providing tools and solutions that enhance productivity, communication, and collaboration for both individuals and businesses. Major products and services within this segment include:

- ✚ Microsoft Office Suite: This includes popular applications like Word (word processing), Excel (spreadsheet), PowerPoint (presentation), and Outlook (email and communication). These tools are essential for businesses, educators, and individuals.
- ✚ Microsoft 365: A subscription-based service that integrates Office applications with cloud services, offering features like real-time collaboration, online storage (OneDrive), and advanced security features.
- ✚ LinkedIn: A professional networking platform that facilitates connections, job searches, and industry insights. It enhances Microsoft's offerings for professionals and businesses.

2. Intelligent Cloud:

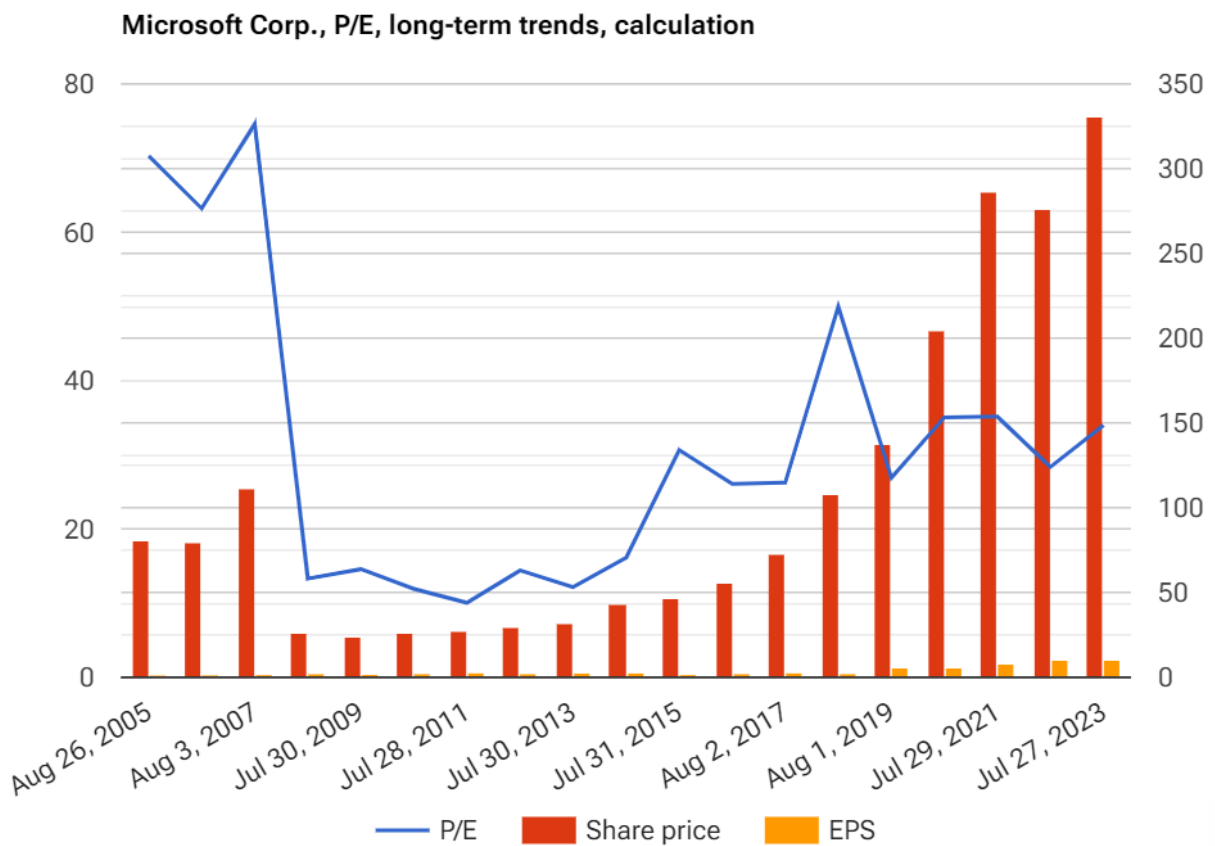
The Intelligent Cloud segment focuses on Microsoft's cloud computing services, including infrastructure, platform, and enterprise solutions. Major products and services within this segment include:

- ✚ Azure: Microsoft's cloud platform provides a vast array of services, including virtual machines, databases, AI and machine learning, analytics, and Internet of Things (IoT) solutions. Azure competes with other major cloud providers like Amazon Web Services (AWS) and Google Cloud.
- ✚ Server Products: These include Windows Server and SQL Server, offering enterprise-level solutions for businesses' IT infrastructure needs.
- ✚ Enterprise Services: Microsoft offers services like consulting, support, and training for businesses using its cloud and server products.

3. More Personal Computing:

This segment encompasses a range of consumer-focused products, from operating systems to entertainment and hardware devices. Major products and services within this segment include:

- ✚ Windows: The Windows operating system is a staple of personal computing, used by millions of individuals and businesses worldwide. Newer versions have introduced innovative features and enhanced security.
- ✚ Surface Devices: Microsoft's hardware line includes the Surface Pro (2-in-1 laptop/tablet), Surface Laptop, and Surface Book. These devices showcase Windows' capabilities and offer a premium computing experience.
- ✚ Xbox: The Xbox gaming consoles (Xbox Series X, Xbox Series S) and Xbox Game Pass subscription service contribute to Microsoft's presence in the gaming and entertainment industry.
- ✚ Search and Advertising: Microsoft's Bing search engine and advertising services are part of this segment, providing an alternative to other search engines and contributing to ad revenue.



3. Risks and Opportunities

3.1 Introduction

Microsoft has been proactive in shaping its strategies for the future by investing in key areas such as cloud computing, artificial intelligence (AI), and new product launches. These strategies align with industry trends and changing customer preferences, enabling the company to remain competitive and relevant in a rapidly evolving technology landscape.

3.2 Opportunities

1. Cloud Computing:

Microsoft's cloud computing strategy revolves around its Azure platform, which offers a comprehensive suite of cloud services, including infrastructure, platform, and software solutions. This strategy aligns with the industry trend of businesses transitioning to cloud-based services for scalability, cost-efficiency, and enhanced flexibility. Azure competes with other major cloud providers, notably Amazon Web Services (AWS) and Google Cloud.

Key Points:

- ✚ Continued expansion of Azure's capabilities and regions to cater to global demand.
- ✚ Emphasis on hybrid cloud solutions, allowing businesses to integrate on-premises infrastructure with cloud resources.
- ✚ Investment in security features to address customer concerns about data protection in the cloud.
- ✚ Focus on industry-specific solutions to meet the unique needs of various sectors.

2. Artificial Intelligence (AI):

Microsoft's AI strategy aims to democratize AI by making it accessible to businesses and developers of all sizes. This aligns with the increasing relevance of AI in various industries, from healthcare to finance.

Key Points:

- ✚ Integration of AI capabilities into various products and services, enhancing user experiences and productivity.
- ✚ Development of AI tools for developers, such as Azure Cognitive Services and Azure Machine Learning.
- ✚ Investment in natural language processing (NLP), computer vision, and conversational AI to improve human-computer interactions.
- ✚ AI-powered solutions for data analytics, predictive modeling, and anomaly detection.

3. New Product Launches and Innovation:

Microsoft's product innovation strategy includes the launch of new hardware devices, software offerings, and services that cater to evolving customer needs.

Key Points:

- ✚ Continuation of hardware innovation with Surface devices, including laptops, tablets, and 2-in-1 devices, addressing different user preferences.
- ✚ Launch of new versions of Windows operating system with improved features and user experiences.

- ✚ Expansion of Microsoft 365 offerings, integrating productivity tools with collaboration and security features.
- ✚ Investments in emerging technologies like quantum computing, mixed reality (HoloLens), and edge computing.

Alignment with Trends and Customer Preferences:

Microsoft's strategies align closely with industry trends and changing customer preferences:

- ✚ Cloud Adoption: As businesses increasingly move to the cloud, Microsoft's focus on Azure reflects the demand for scalable and flexible cloud solutions.
- ✚ AI Integration: The integration of AI across its products aligns with the growing importance of AI-driven insights and automation in various industries.
- ✚ Hybrid Work: Microsoft's emphasis on collaboration tools, remote work capabilities, and security aligns with the post-pandemic trend of hybrid work environments.
- ✚ Data Privacy: Microsoft's investment in security and data protection addresses customers' growing concerns about privacy and cybersecurity.
- ✚ Evolving Customer Experiences: Innovation in hardware, software, and services reflects customers' desire for seamless and innovative experiences across devices.

3.3 Risks

While Microsoft presents numerous strengths, it's important to be aware of potential drawbacks and challenges that could impact your investment decision. Here are the cons related to regulatory risks, competition, and potential market volatility:

Regulatory Risks:

Challenge: The technology industry is subject to evolving regulations, privacy concerns, and antitrust scrutiny. Regulatory changes can lead to increased compliance costs, legal challenges, and restrictions on certain business practices.

Impact: Adapting to changing regulations might divert resources, impact profitability, and introduce uncertainty. Regulatory actions could hinder Microsoft's growth strategies or require adjustments to its business model.

Competition:

Challenge: Microsoft operates in highly competitive markets across its various segments, including cloud computing, productivity software, gaming, and more. Competitors include giants like Amazon, Google, Apple, and other specialized players.

Impact: Intense competition can lead to price pressures, reduced market share, and a need for continuous innovation. Aggressive competitors may introduce disruptive technologies or capture customer attention, affecting Microsoft's growth potential.

Potential Market Volatility:

Challenge: Like all publicly traded companies, Microsoft's stock is subject to market volatility influenced by economic conditions, geopolitical events, and investor sentiment.

Impact: Sudden market downturns could result in short-term declines in Microsoft's stock price, affecting investor portfolios. Market volatility might lead to reactive decision-making rather than a

long-term investment strategy.

Technological Shifts:

Challenge: Rapid technological advancements can disrupt established markets and render existing products obsolete. Failure to adapt to emerging trends could impact Microsoft's relevance.

Impact: If Microsoft fails to effectively transition to new technologies or address shifts in customer preferences, its growth potential could be hindered. Technological shifts could necessitate significant investments or strategic realignments.

Economic Dependency:

Challenge: Microsoft's performance is influenced by global economic conditions. Economic downturns can affect technology spending, particularly for businesses and governments.

Impact: During economic downturns, reduced technology budgets could lead to decreased demand for Microsoft's products and services, impacting revenue growth and profitability.

Market Saturation:

Challenge: Microsoft's dominant products, such as Windows and Office, have reached high adoption levels. Further growth might be limited in these mature markets.

Impact: Slower growth in mature markets could require Microsoft to seek alternative avenues for expansion, potentially involving higher investment costs.

Cybersecurity Threats:

Challenge: As a technology company, Microsoft faces cybersecurity threats and data breaches that could compromise customer data, erode trust, and lead to legal and financial liabilities.

Impact: Significant security breaches could lead to reputational damage, regulatory fines, and legal actions, affecting both financial performance and investor sentiment.

4. Stock Performance and Future Projections

4.1 Definitions

Price-to-Earnings (P/E) Ratio:

Microsoft's P/E ratio measures how much investors are willing to pay for each dollar of earnings. A lower P/E ratio suggests that investors are paying less for each dollar of earnings.

Microsoft's P/E ratio was approximately around 35 as of September 2022.

Enterprise Value-to-Sales (EV/Sales) Ratio:

The EV/Sales ratio compares the company's enterprise value to its total revenue. It gives an idea of how the market values the company's sales.

Microsoft's EV/Sales ratio was approximately around 11 as of September 2022.

Enterprise Value-to-EBIT Ratio:

The EV/EBIT ratio compares the company's enterprise value to its earnings before interest and taxes (EBIT). It provides a measure of how a company's overall value relates to its operating profitability.

Microsoft's EV/EBIT ratio was approximately around 25 as of September 2022.

Enterprise Value-to-EBITDA Ratio:

The EV/EBITDA ratio is like EV/EBIT, but it uses earnings before interest, taxes, depreciation, and amortization (EBITDA) instead. It gives an indication of a company's operating performance without considering non-cash expenses.

Microsoft's EV/EBITDA ratio was approximately around 18 as of September 2022.

- ❖ The primary trend is decreasing.
- ❖ The decline rate of the primary trend is 6.52% per annum.
- ❖ MSFT price at the close of August 25, 2023, was \$322.98 and was higher than the top border of the primary price channel by \$19.68 (6.49%). This indicates a possible reversal in the primary trend direction.
- ❖ The secondary trend is increasing.
- ❖ The growth rate of the secondary trend is 74.28% per annum.
- ❖ MSFT price at the close of August 25, 2023, was lower than the bottom border of the secondary price channel by \$1.02 (0.31%). This indicates a possible reversal in the secondary trend direction.
- ❖ The direction of the secondary trend is opposite to the direction of the primary trend. This indicates a possible reversal in the direction of the primary trend.

4.2 Two-Stage Dividend Discount Model (DDM):

The two-stage DDM is a valuation model that considers two phases of dividend growth: a high-growth phase and a stable-growth phase. Here's a simplified breakdown:

- ✚ High-Growth Phase: In the early years, a company might experience higher-than-average dividend growth due to expansion, new product launches, or market dominance. During this phase, dividends are expected to grow at a higher rate.

- ✚ Stable-Growth Phase: After the high-growth phase, the company's growth rate is expected to stabilize and align more closely with the overall economy. Dividend growth during this phase is assumed to be at a stable, sustainable rate.

4.3 Estimating Intrinsic Value:

To estimate the intrinsic value of a stock like Microsoft using the two-stage DDM, you would typically follow these steps:

- ✚ Forecast Dividends: Estimate dividends for the high-growth phase based on historical growth rates, financial projections, and industry trends. Estimate the number of years this phase will last.
- ✚ Calculate Present Value of High-Growth Dividends: Discount the forecasted high-growth dividends back to their present value using a discount rate that accounts for the risk associated with the company's operations and market conditions.
- ✚ Determine Transition Period: Estimate when the company will transition from the high-growth phase to the stable-growth phase.
- ✚ Estimate Stable Dividend Growth Rate: Once in the stable-growth phase, estimate a sustainable dividend growth rate that aligns with the company's long-term prospects and economic conditions.
- ✚ Calculate Terminal Value: Estimate the terminal value of the stock by using the stable dividend growth rate, assuming dividends will continue growing indefinitely.
- ✚ Discount Terminal Value: Discount the terminal value back to its present value.
- ✚ Sum Present Values: Sum the present values of high-growth dividends and the present value of the terminal value to get the estimated intrinsic value of the stock.

4.4 Comparison to Industry Averages

It's important to compare these valuation ratios to industry averages and historical trends to assess Microsoft's relative valuation and whether it's overvalued or undervalued.

Industry Averages: Comparing Microsoft's ratios to those of its peers and industry benchmarks can provide insights into how the market values the company relative to its competitors. Microsoft's valuation ratios were generally in line with or slightly above industry averages for large technology companies.

4.5 Historical Trends:

Analyzing historical trends in these ratios can help identify whether Microsoft's valuation has been consistent or if there have been notable changes over time. Historical comparisons can also provide insights into whether the company's valuation has deviated from its long-term average.

Fiscal Year 2022 (Ended June 30, 2022):

- ✚ Revenue: Approximately \$168 billion
- ✚ Net Income: Approximately \$61 billion

Fiscal Year 2021 (Ended June 30, 2021):

- ✚ Revenue: Approximately \$143 billion
- ✚ Net Income: Approximately \$44 billion

Fiscal Year 2020 (Ended June 30, 2020):

- ✚ Revenue: Approximately \$125 billion
- ✚ Net Income: Approximately \$39 billion

4.6 Key Financial Ratios:

Here are some key financial ratios that can provide insights into Microsoft's performance and growth trajectory over the past few years:

Profit Margin (Net Income / Revenue):

- ✚ FY 2021: Net Income of \$61 billion / Revenue of \$168 billion = ~36.31%
- ✚ FY 2020: Net Income of \$44 billion / Revenue of \$143 billion = ~30.77%
- ✚ FY 2019: Net Income of \$39 billion / Revenue of \$125 billion = ~31.20%

Return on Equity (Net Income / Average Shareholders' Equity):

Earnings per Share (Net Income / Average Shares Outstanding):

4.7 Growth Trajectory:

Microsoft's revenue has been increasing, driven by factors such as the growth of its cloud services (Azure), continued demand for its productivity tools (Office 365), and its presence in the gaming and entertainment industry (Xbox). The net income has also shown a healthy increase, indicating the company's ability to convert its revenue into profits.

To assess the growth trajectory more comprehensively, it's essential to calculate and analyze the compound annual growth rates (CAGR) of key financial metrics over the specified period. This can provide a clearer picture of Microsoft's consistent growth and financial health.

5. Peer Comparison

5.1 Main competitors

Microsoft, Apple, Amazon, and Google (Alphabet) are some of the biggest players in the technology sector, each with its own strengths, weaknesses, and market positions. Here's a comparative analysis: Microsoft:

Market Position: Microsoft is a diversified technology company with a strong presence in operating systems, productivity software (Office), cloud services (Azure), and gaming (Xbox). It's known for its enterprise solutions and has successfully transitioned into the cloud era with Azure.

Strengths:

- ✚ Dominant in enterprise software, with Office and Azure leading in their respective markets.
- ✚ Strong brand reputation and long-standing relationships with businesses.
- ✚ Growing cloud computing services (Azure) contributing to revenue diversification.
- ✚ Investment in AI and machine learning.

Weaknesses:

- ✚ Competition in cloud services from Amazon (AWS) and Google Cloud.
- ✚ Potential regulatory challenges due to its market position.

Apple:

Market Position: Apple is known for its premium hardware devices (iPhone, iPad, Mac) and ecosystem of software and services.

Strengths:

- ✚ Strong brand loyalty and user engagement.
- ✚ High-quality hardware design and user experience.
- ✚ Robust ecosystem with App Store, iCloud, and integration across devices.
- ✚ Significant revenue from iPhone sales.

Weaknesses:

- ✚ Dependency on iPhone sales for a substantial portion of revenue.
- ✚ Increasing competition in the smartphone market.
- ✚ Relatively lower presence in enterprise software and services.

Amazon:

Market Position: Amazon is a global e-commerce giant that expanded into cloud services (AWS) and various other industries.

Strengths:

- ✚ Dominant in e-commerce, with an extensive customer base.
- ✚ Leading cloud services provider with AWS.
- ✚ Strong logistics and fulfillment infrastructure.
- ✚ Expansion into areas like online streaming and smart devices (Amazon Echo).

Weaknesses:

- ✚ Profit margins can be low due to heavy investments.
- ✚ Regulatory scrutiny over its size and influence in e-commerce.

- ✚ Intense competition in various sectors it operates in.

Google (Alphabet):

Market Position: Google is a search engine and advertising giant that expanded into various tech domains.

Strengths:

- ✚ Dominance in online search and digital advertising.
- ✚ Strong presence in online services with products like Google Workspace (formerly G Suite) and Google Cloud.
- ✚ Investment in AI, machine learning, and self-driving technology.

Weaknesses:

- ✚ Dependence on advertising revenue.
- ✚ Some privacy concerns due to data collection practices.
- ✚ Competition in cloud services from Amazon and Microsoft.

Company/Ratio	P/E	EV/Sales	EV/EBIT	EV/EBITDA
Microsoft	35	11	25	18
Apple	30	8	20	16
Amazon	60	4	40	30
Google (Alphabetre)	30	8	20	15

6. Conclusions

The company is expected to grow earnings per share (EPS) by more than 12% annually for the next three to five years.

The stock trades at a forward P/E of 29, a premium to the market, but that could be deserved. Microsoft's growth outlook is greater than the market's historical average. Additionally, Microsoft is one of two public companies with a AAA credit rating from Standard & Poor's. In other words, you get above-market growth from a company you can invest in, and you can sleep well at night.

Microsoft's valuation could stunt short-term investment returns if the broader market becomes more volatile. Investors should approach cautiously; consider buying a small position now and add slowly over time, looking for better opportunities to buy more. You have more leeway if you're a long-term investor with plans to hold your shares for at least five years.

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