

Microsoft (MSFT) down 24% YTD

\$255.14

Microsoft wipes off \$623 billion (25%) in MCap in 2022, biggest drop in Computer Software sector

Microsoft Corporation's stock price tumbled \$79.71 (or 23.8%) year-to-date (YTD) in 2022 to close at \$255.14.

Microsoft is the NASDAQ's largest Computer Software company by market cap. Compared with the NASDAQ-100 Index which has fallen 26.3% YTD, this is a relative price increase of 2.5% for Microsoft shareholders.

The stock had the steepest fall in the Computer Software sector which is down 25.4% in 2022. Microsoft's market cap slumped by \$623.1 billion to \$1,901.9 billion.

Average daily volume of 29.2 million shares so far in 2022 was 1.1 times the average daily volume in 2021.

Fig 1: Stock vs Index (Annual Percentage Change)

December 31	Last price in USD	Annual Return	Index return of S&P 500 Index
2021	\$333.20	52.5	26.9
2020	\$218.52	42.5	16.3
2019	\$153.31	57.6	28.9
2018	\$97.31	20.5	-6.2
2017	\$80.78		19.4

Over 5 years Microsoft Corporation is up a total 312.5% at an annualized rate of 42.5% compared to the Index being up 155.1% at an annualized rate of 26.4%.

Microsoft Corporation has outperformed the S&P 500 Index in 4 of the past 5 years: 2021, 2020, 2019, 2018.

Includes analysis of SEC Filings Form 13F as of Sep 30

Form 13F is a quarterly equity holding report for all institutional investment managers with at least \$100 million in AUM. Our analysis covers about 5,500 such institutions.
Next quarterly update - Inst ownership analysis Dec 31: Feb 17, 2023

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DATA & ARCHIVE DOWNLOAD CENTER

MSFT: EXCEL TABLES ARE AVAILABLE TO EXPORT DATA:

- • [PRICE VOLUME - 5-YEAR HISTORY](#)
- • [FINANCIALS - 10-YEAR HISTORY \[INCLUDING Q1/2022\]](#)
- • [INSTITUTIONAL SHAREHOLDERS - CATEGORISED AND COMPLETE LIST OF 4265 INSTITUTIONS AS AT Sep 30, 2022](#)
- • [PEER COMPARISON - STOCK IN COMPUTER SOFTWARE SECTOR AND STOCK IN INDICES](#)
- • [PATENTS - CATEGORISED LIST OF 5-YEAR HISTORY OF 13093 \[INCLUDING 10 IN CURRENT WEEK\]](#)

MSFT: LINKS IN HTML TO FURTHER INFORMATION:

- • [NEWS ARCHIVES - MSFT PAST 4 YEARS IN HTML](#)
- • [STOCK BUZZ IN HTML](#)
- • [PRICE VOLUME CHARTS IN HTML](#)

Fig 1: MICROSOFT Stock Dashboard [traded in US Dollars, USD]

Exchange	NASDAQ
Nov 30, 2022	\$255.14
P/E (FY2022)	26.3
EPS (FY2022)	\$9.70
Dividend Yield (TTM)	1%
DPS (past 12 months)	\$2
EPS Growth (Q1 2023 vs Q4 2022)	4.9%
Ave Daily Volume	31,414,217 shares
52-Week Range	212.83 - 341.10
Sector	Computer Software
Independent Sector Ranking	Ranked 15 in Forbes2000
Market Cap	\$1,902 billion
Shares Outstanding	7,454,473,144
Institutional Ownership	5,122,970,781
% of shares outstanding	68.7%
MSFT in Indices	NASDAQ-100, NASDAQ Global Select Market Composite
Independent Sector comparison by Dividend Yield % (TTM)	Stock: 1; Sector: .84. 16% Discount to sector av. Attractive dividend yield compared to sector av
Independent Sector comparison by P/E	Stock: 26.3; Sector: 28.83. 8.8% Discount to sector av. Good value compared with sector av
PV\$1000 (1 yr)	\$786

Fig 2: LONG-TERM FUNDAMENTAL RANKING: 4 OUT OF 5 [5 is best]

Microsoft is ranked number 1 out of 34 listed computer software companies in the United States with a market capitalization of \$1,860.6 billion.

It has a strong relative ROE of 43.7% and ROA of 19.9%. The company paid a dividend of \$1.92 in the last twelve months. The dividend yield is high at 1%. Finally, its earnings growth in the past 12 months has been a comparatively high 19.5%.

Stocks are scored on a set of parameters reflecting fundamental analytical tools involving valuation, size and financial performance. They are ranked according to the average values of those parameters. The highest ranking is 5 and the lowest ranking is 1.



SEC Form 10-K: Management's Discussion & Analysis

Fig 3: SEC Form 10-K: Management's Discussion & Analysis

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS:

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to help the reader understand the results of operations and financial condition of Microsoft Corporation. MD&A is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and the accompanying Notes to Financial Statements (Part II, Item 8 of this Form 10-K). This section generally discusses the results of our operations for the year ended June 30, 2022 compared to the year ended June 30, 2021. For a discussion of the year ended June 30, 2021 compared to the year ended June 30, 2020, please refer to Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended June 30, 2021.

OVERVIEW:

Microsoft is a technology company whose mission is to empower every person and every organization on the planet to achieve more. We strive to create local opportunity, growth, and impact in every country around the world. Our platforms and tools help drive small business productivity, large business competitiveness, and public-sector efficiency. They also support new startups, improve educational and health outcomes, and empower human ingenuity.

We generate revenue by offering a wide range of cloud-based and other services to people and businesses; licensing and supporting an array of software products; designing, manufacturing, and selling devices; and delivering relevant online advertising to a global audience. Our most significant expenses are related to compensating employees; designing, manufacturing, marketing, and selling our products and services; datacenter costs in support of our cloud-based services; and income taxes.

Highlights from fiscal year 2022 compared with fiscal year 2021 included:

Microsoft Cloud (formerly commercial cloud) revenue increased 32% to \$91.2 billion.

Office Commercial products and cloud services revenue increased 13% driven by Office 365 Commercial growth of 18%.

Office Consumer products and cloud services revenue increased 11% and Microsoft 365 Consumer subscribers grew to 59.7 million.

LinkedIn revenue increased 34%:

Dynamics products and cloud services revenue increased 25% driven by Dynamics 365 growth of 39%.

Server products and cloud services revenue increased 28% driven by Azure and other cloud services growth of 45%.

Windows original equipment manufacturer licensing ("Windows OEM") revenue increased 11%.

Windows Commercial products and cloud services revenue increased 11%.

Xbox content and services revenue increased 3%.

Search and news advertising revenue excluding traffic acquisition costs increased 27%.

Surface revenue increased 3%:

On March 4, 2022, we completed our acquisition of Nuance Communications, Inc. ("Nuance") for a total purchase price of \$18.8 billion, consisting primarily of cash. Nuance is a cloud and artificial intelligence ("AI") software provider with healthcare and enterprise AI experience, and the acquisition will build on our industry-specific cloud offerings. The financial results of Nuance have been included in our consolidated financial statements since the date of the acquisition. Nuance is reported as part of our Intelligent Cloud segment. Refer to Note 8 - Business Combinations of the Notes to Financial Statements (Part II, Item 8 of this Form 10-K) for further discussion.

Industry Trends:

Our industry is dynamic and highly competitive, with frequent changes in both technologies and business models. Each industry shift is an opportunity to conceive new products, new technologies, or new ideas that can further transform the industry and our business. At Microsoft, we push the boundaries of what is possible through a broad range of research and development activities that seek to identify and address the changing demands of customers and users, industry trends, and competitive forces.

Economic Conditions, Challenges, and Risks:

The markets for software, devices, and cloud-based services are dynamic and highly competitive. Our competitors are developing new software and devices, while also deploying competing cloud-based services for consumers and businesses. The devices and form factors customers prefer evolve rapidly, and influence how users access services in the cloud, and in some cases, the user's choice of which suite of cloud-based services to use. We must continue to evolve and adapt over an extended time in pace with this changing environment. The investments we are making in infrastructure and devices will continue to increase our operating costs and may decrease our operating margins.

Our success is highly dependent on our ability to attract and retain qualified employees. We hire a mix of university and industry talent worldwide. We compete for talented individuals globally by offering an exceptional working environment, broad customer reach, scale in resources, the ability to grow one's career across many different products and businesses, and competitive compensation and benefits. Aggregate demand for our software, services, and devices is correlated to global macroeconomic and geopolitical factors, which remain dynamic.

Our devices are primarily manufactured by third-party contract manufacturers, some of which contain certain components for which there are very few qualified suppliers. For these components, we have limited near-term flexibility to use other manufacturers if a current vendor becomes unavailable or is unable to meet our requirements. Extended disruptions at these suppliers and/or manufacturers could lead to a similar disruption in our ability to manufacture devices on time to meet consumer demand.

Our international operations provide a significant portion of our total revenue and expenses. Many of these revenue and expenses are denominated in currencies other than the U.S. dollar. As a result, changes in foreign exchange rates may significantly affect revenue and expenses. Fluctuations in the U.S. dollar relative to certain foreign currencies did not have a material impact on reported revenue or expenses from our international operations in fiscal year 2022.

Refer to Risk Factors (Part I, Item 1A of this Form 10-K) for a discussion of these factors and other risks.

Seasonality:

Our revenue fluctuates quarterly and is generally higher in the second and fourth quarters of our fiscal year. Second quarter revenue is driven by corporate year-end spending trends in our major markets and holiday season spending by consumers, and fourth quarter revenue is driven by the volume of multi-year on-premises contracts executed during the period.

Reportable Segments:

We report our financial performance based on the following segments: Productivity and Business Processes, Intelligent Cloud, and More Personal Computing. The segment amounts included in MD&A are presented on a basis consistent with our internal management reporting. Additional information on our reportable segments is contained in Note 19 - Segment Information and Geographic Data of the Notes to Financial Statements (Part II, Item 8 of this Form 10-K).

Metrics:

We use metrics in assessing the performance of our business and to make informed decisions regarding the allocation of resources. We disclose metrics to enable investors to evaluate progress against our ambitions, provide transparency into performance trends, and reflect the continued evolution of our products and services. Our commercial and other business metrics are fundamentally connected based on how customers use our products and services. The metrics are disclosed in the MD&A or the Notes to Financial Statements (Part II, Item 8 of this Form 10-K). Financial metrics are calculated based on financial results prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"), and growth comparisons relate to the corresponding period of last fiscal year.

In the first quarter of fiscal year 2022, we made updates to the presentation and method of calculation for certain metrics, most notably changes to incorporate all current and anticipated revenue streams within our Office Consumer and Server products and cloud services metrics and changes to align with how we manage our Windows OEM and Search and news advertising businesses. None of these changes had a material impact on previously reported amounts in our MD&A.

LIQUIDITY AND CAPITAL RESOURCES:

We expect existing cash, cash equivalents, short-term investments, cash flows from operations, and access to capital markets to continue to be sufficient to fund our operating activities and cash commitments for investing and financing activities, such as dividends, share repurchases, debt maturities, material capital expenditures, and the transition tax related to the TCJA, for at least the next 12 months and thereafter for the foreseeable future.

Cash, Cash Equivalents, and Investments:

Cash, cash equivalents, and short-term investments totaled \$104.8 billion and \$130.3 billion as of June 30, 2022 and 2021, respectively. Equity investments were \$6.9 billion and \$6.0 billion as of June 30, 2022 and 2021, respectively. Our short-term investments are primarily intended to facilitate liquidity and capital preservation. They consist predominantly of highly liquid investment-grade fixed-income securities, diversified among industries and individual issuers. The investments are predominantly U.S. dollar-denominated securities, but also include foreign currency-denominated securities to diversify risk. Our fixed-income investments are exposed to interest rate risk and credit risk. The credit risk and average maturity of our fixed-income portfolio are managed to achieve economic returns that correlate to certain fixed-income indices. The settlement risk related to these investments is insignificant given that the short-term investments held are primarily highly liquid investment-grade fixed-income securities.

Valuation:

In general, and where applicable, we use quoted prices in active markets for identical assets or liabilities to determine the fair value of our financial instruments. This pricing methodology applies to our Level 1 investments, such as U.S. government securities, common and preferred stock, and mutual funds. If quoted prices in active markets for identical assets or liabilities are not available to determine fair value, then we use quoted prices for similar assets and liabilities or inputs other than the quoted prices that are observable either directly or indirectly. This pricing methodology applies to our Level 2 investments, such as commercial paper, certificates of deposit, U.S. agency securities, foreign government bonds, mortgage- and asset-backed securities, corporate notes and bonds, and municipal securities. Level 3 investments are valued using internally-developed models with unobservable inputs. Assets and liabilities measured at fair value on a recurring basis using unobservable inputs are an immaterial portion of our portfolio.

A majority of our investments are priced by pricing vendors and are generally Level 1 or Level 2 investments as these vendors either provide a quoted market price in an active market or use observable inputs for their pricing without applying significant adjustments. Broker pricing is used mainly when a quoted price is not available, the investment is not priced by our pricing vendors, or when a broker price is more reflective of fair values in the market in which the investment trades. Our broker-priced investments are generally classified as Level 2 investments because the broker prices these investments based on similar assets without applying significant adjustments. In addition, all our broker-priced investments have a sufficient level of trading volume to demonstrate that the fair values used are appropriate for these investments. Our fair value processes include controls that are designed to ensure appropriate fair values are recorded. These controls include model validation, review of key model inputs, analysis of period-over-period fluctuations, and independent recalculation of prices where appropriate.

Cash Flows:

Cash from operations increased \$12.3 billion to \$89.0 billion for fiscal year 2022, mainly due to an increase in cash received from customers, offset in part by an increase in cash paid to suppliers and employees. Cash used in financing increased \$10.4 billion to \$58.9 billion for fiscal year 2022, mainly due to a \$5.3 billion increase in common stock repurchases and a \$5.3 billion increase in repayments of debt. Cash used in investing increased \$2.7 billion to \$30.3 billion for fiscal year 2022, mainly due to a \$13.1 billion increase in cash used for acquisitions of companies, net of cash acquired, and purchases of intangible and other assets, and a \$3.3 billion increase in additions to property and equipment, offset in part by a \$15.6 billion increase in cash from net investment purchases, sales, and maturities.

Other Planned Uses of Capital:

On January 18, 2022, we entered into a definitive agreement to acquire Activision Blizzard, Inc. ("Activision Blizzard") for \$95.00 per share in an all-cash transaction valued at \$68.7 billion, inclusive of Activision Blizzard's net cash. The acquisition has been approved by Activision Blizzard's shareholders, and we expect it to close in fiscal year 2023, subject to the satisfaction of certain regulatory approvals and other customary closing conditions.

We will continue to invest in sales, marketing, product support infrastructure, and existing and advanced areas of technology, as well as continue making acquisitions that align with our business strategy. Additions to property and equipment will continue, including new facilities, datacenters, and computer systems for research and development, sales and marketing, support, and administrative staff. We expect capital expenditures to increase in coming years to support growth in our cloud offerings. We have operating and finance leases for datacenters, corporate offices, research and development facilities, Microsoft Experience Centers, and certain equipment. We have not engaged in any related party transactions or arrangements with unconsolidated entities or other persons that are reasonably likely to materially affect liquidity or the availability of capital resources.

RECENT ACCOUNTING GUIDANCE:

Refer to Note 1 - Accounting Policies of the Notes to Financial Statements (Part II, Item 8 of this Form 10-K) for further discussion.

CRITICAL ACCOUNTING ESTIMATES:

Our consolidated financial statements and accompanying notes are prepared in accordance with GAAP. Preparing consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expenses. Critical accounting estimates are those estimates that involve a significant level of estimation uncertainty and could have a material impact on our financial condition or results of operations. We have critical accounting estimates in the areas of revenue recognition, impairment of investment securities, goodwill, research and development costs, legal and other contingencies, income taxes, and inventories.

Revenue Recognition:

Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. When a cloud-based service includes both on-premises software licenses and cloud services, judgment is required to determine whether the software license is considered distinct and accounted for separately, or not distinct and accounted for together with the cloud service and recognized over time. Certain cloud services, primarily Office 365, depend on a significant level of integration, interdependency, and interrelation between the desktop applications and cloud services, and are accounted for together as one performance obligation. Revenue from Office 365 is recognized ratably over the period in which the cloud services are provided.

Judgment is required to determine the stand-alone selling price ("SSP") for each distinct performance obligation. We use a single amount to estimate SSP for items that are not sold separately, including on-premises licenses sold with SA or software updates provided at no additional charge. We use a range of amounts to estimate SSP when we sell each of the products and services separately and need to determine whether there is a discount to be allocated based on the relative SSP of the various products and services.

In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine the SSP using information that may include market conditions and other observable inputs. We typically have more than one SSP for individual products and services due to the stratification of those products and services by customers and circumstances. In these instances, we may use information such as the size of the customer and geographic region in determining the SSP.

Due to the various benefits from and the nature of our SA program, judgment is required to assess the pattern of delivery, including the exercise pattern of certain benefits across our portfolio of customers.

Our products are generally sold with a right of return, we may provide other credits or incentives, and in certain instances we estimate customer usage of our products and services, which are accounted for as variable consideration when determining the amount of revenue to recognize. Returns and credits are estimated at contract inception and updated at the end of each reporting period if additional information becomes available. Changes to our estimated variable consideration were not material for the periods presented.

Impairment of Investment Securities:

We review debt investments quarterly for credit losses and impairment. If the cost of an investment exceeds its fair value, we evaluate, among other factors, general market conditions, credit quality of debt instrument issuers, and the extent to which the fair value is less than cost. This determination requires significant judgment. In making this judgment, we employ a systematic methodology that considers available quantitative and qualitative evidence in evaluating potential impairment of our investments. In addition, we consider specific adverse conditions related to the financial health of, and business outlook for, the investee. If we have plans to sell the security or it is more likely than not that we will be required to sell the security before recovery, then a decline in fair value below cost is recorded as an impairment charge in other income (expense), net and a new cost basis in the investment is established. If market, industry, and/or investee conditions deteriorate, we may incur future impairments.

Equity investments without readily determinable fair values are written down to fair value if a qualitative assessment indicates that the investment is impaired and the fair value of the investment is less than carrying value. We perform a qualitative assessment on a periodic basis. We are required to estimate the fair value of the investment to determine the amount of the impairment loss. Once an investment is determined to be impaired, an impairment charge is recorded in other income (expense), net.

Goodwill:

We allocate goodwill to reporting units based on the reporting unit expected to benefit from the business combination. We evaluate our reporting units on an annual basis and, if necessary, reassign goodwill using a relative fair value allocation approach. Goodwill is tested for impairment at the reporting unit level (operating segment or one level below an operating segment) on an annual basis (May 1 for us) and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying value. These events or circumstances could include a significant change in the business climate, legal factors, operating performance indicators, competition, or sale or disposition of a significant portion of a reporting unit.

Application of the goodwill impairment test requires judgment, including the identification of reporting units, assignment of assets and liabilities to reporting units, assignment of goodwill to reporting units, and determination of the fair value of each reporting unit. The fair value of each reporting unit is estimated primarily through the use of a discounted cash flow methodology. This analysis requires significant judgments, including estimation of future cash flows, which is dependent on internal forecasts, estimation of the long-term rate of growth for our business, estimation of the useful life over which cash flows will occur, and determination of our weighted average cost of capital.

The estimates used to calculate the fair value of a reporting unit change from year to year based on operating results, market conditions, and other factors. Changes in these estimates and assumptions could materially affect the determination of fair value and goodwill impairment for each reporting unit.

Research and Development Costs:

Costs incurred internally in researching and developing a computer software product are charged to expense until technological feasibility has been established for the product. Once technological feasibility is established, software costs are capitalized until the product is available for general release to customers. Judgment is required in determining when technological feasibility of a product is established. We have determined that technological feasibility for our software products is reached after all high-risk development issues have been resolved through coding and testing. Generally, this occurs shortly before the products are released to production. The amortization of these costs is included in cost of revenue over the estimated life of the products.

The Past Quarter: SEC Filings

Fig 4: SEC Form 4 Filings: Insider Options Awarded

Tue Sep 20, 2022

Microsoft CFO Amy Hood awarded shares

Tuesday September 20, 2022Microsoft (NASDAQ:MSFT) Chief Financial Officer and Executive Vice President Amy Hood, was awarded 33,465 shares worth \$8.2 million on September 19.

Tue Sep 20, 2022

Microsoft chief marketing officer Chris Capossela awarded shares

Tuesday September 20, 2022Microsoft (NASDAQ:MSFT) Chief Marketing Officer, Executive Vice President and Marketing and Consumer Business Chris Capossela, was awarded 11,302 shares worth \$2.8 million on September 19.

Tue Sep 20, 2022

Microsoft president Bradford L. Smith awarded shares

Tuesday September 20, 2022Microsoft (NASDAQ:MSFT) President and Vice Chairman Bradford L. Smith, was awarded 29,641 shares worth \$7.2 million on September 19.

Tue Sep 20, 2022

Microsoft executive vice president Judson Althoff awarded shares

Tuesday September 20, 2022Microsoft (NASDAQ:MSFT) Chief Commercial Officer and Executive Vice President Judson Althoff, was awarded 27,996 shares worth \$6.8 million on September 19.

Tue Sep 20, 2022

Microsoft executive vice president Kathleen Hogan awarded shares

Tuesday September 20, 2022Microsoft (NASDAQ:MSFT) Chief Human Resources Officer and Executive Vice President Kathleen Hogan, was awarded 12,621 shares worth \$3.1 million on September 19.

Fri Sep 09, 2022

Microsoft director Padmasree Warrior awarded Restricted Stock Units

Friday September 09, 2022Microsoft (NASDAQ:MSFT) Director Padmasree Warrior, has been awarded Restricted Stock Units on 10 shares. The transaction date was September 08. The shares last traded at \$264.46.

Fri Sep 09, 2022

Microsoft director Teri L. List-Stoll awarded Restricted Stock Units

Friday September 09, 2022Microsoft (NASDAQ:MSFT) Independent Director Teri L. List-Stoll, has been awarded Restricted Stock Units on 54 shares. The transaction date was September 08. The shares last traded at \$264.46.

Fri Sep 09, 2022

Microsoft director Penny Pritzker awarded Restricted Stock Units

Friday September 09, 2022Microsoft (NASDAQ:MSFT) Director Penny Pritzker, has been awarded Restricted Stock Units on 24 shares. The transaction date was September 08. The shares last traded at \$264.46.

Fri Sep 09, 2022

Microsoft director Sandra E. Peterson awarded Restricted Stock Units

Friday September 09, 2022Microsoft (NASDAQ:MSFT) Director Sandra E. Peterson, has been awarded Restricted Stock Units on 51 shares. The transaction date was September 08. The shares last traded at \$264.46.

Insider Selling Summary [past quarter]

Name	No. of Shares	Price, \$	Value, \$
Hood Amy [CFO]	75,351	259.5	19,550,985
Nadella Satya [CEO]	56,999	257.7	14,689,028
Total	132,350	258.7	34,240,013

The Past Quarter: Financials, Analyst Ratings

Fig 5: MSFT Financials Summary: EPS up 19.5% to \$9.70 in FY2022 [y.e. 30 Jun 2022]

Net profit was up 18.7% from \$61.3 billion in FY2021 to \$72.7 billion in FY2022.

Earnings Per Share (EPS) was up 19.5% from \$8.12 in FY2021 to \$9.70 in FY2022.

Year ended Jun	FY2022	FY2021	FY2020
Sales (\$ B)	198.3	168.1	143
Pretax (\$ B)	83.7	71.1	53
Net (\$ B)	72.7	61.3	44.3
EPS (\$)	9.7	8.12	5.82

Fig 6: Quarterly Financials (Q1/2023)

Microsoft reports 4.9% sequential rise in Quarterly Net Profit

Release Date: October 25, 2022

Microsoft (NASDAQ:MSFT), announced net profit of \$17.6b for the quarter-ended 30 September 2022 [Q1/2023], up 4.9% from the previous quarter [Q4/2022] and down 14% from the year-earlier period [Q1/2022]. Earnings per share (EPS) were up 4.9% sequentially from \$2.24 in Q4/2022 to \$2.35 in Q1/2023.

Quarterly Report (Q1 2023)

Quarter-ended	30 Sep [Q1/2023]	30 Jun [Q4/2022]	31 Mar [Q3/2022]
EPS, \$	2.4	2.2	2.2
Sequential growth in EPS %	4.9	0.4	-11
Revenue, \$ billion	50.1	51.9	49.4
Sequential growth in Revenue %	-3.4	5.1	-4.6
Net Profit, \$ billion	17.6	16.7	16.7
Sequential growth in Net Profit %	4.9	0.1	-10.9

Compared with the Previous Corresponding Period [PCP; Q1/2022], year-over-year [y.o.y.] EPS was down 13.9%, Revenue was up 10.6% and Net Profit was down 14.4%.

Quarter-ended	30 Sep [Q1/2023]	30 Sep [Q1/2022]
EPS, \$	2.4	2.7
PCP growth in EPS %	-14	48
Revenue, \$ billion	50.1	45.3
PCP growth in Revenue %	10.6	22.0
Net Profit, \$ billion	17.6	20.5
PCP growth in Net Profit %	-14.4	47.6

Fig 7: Analyst Recommendations: Past Quarter

2022	Brokerage	Current Rating	Prev Target	Price Target
Nov 02	Macquarie	Neutral		234
Oct 27	Rosenblatt Securities	Buy	300	285
Oct 26	Credit Suisse Group	Outperform	400	365
Oct 26	Wolfe Research	Outperform	340	280
Oct 26	Evercore ISI	Outperform	330	300

The Past Quarter: Press Releases and Corporate Wire

September 22: Microsoft quarterly dividends up 9.7% sequentially from previous quarter

Microsoft today announced a quarterly dividend of 68.0c per share for Q1/2023; up 9.7% sequentially from the previous quarter (Q4/2022) dividend of 62.0c. The ex-dividend date is Wednesday, November 16, 2022 and the record date is Thursday, November 17, 2022 and it is payable on Thursday, December 08. Total dividends per share paid in the 12 months ended September 22 were \$2.48.

October 19: Microsoft has been issued 81 patents focused on "computing device" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued 4 patents in the last month focused on "computing device", bringing the total patents on "computing device" to 81 in the last 12 months.

October 19: Microsoft has been issued 7 patents focused on "user device" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued 2 patents in the last month focused on "user device", bringing the total patents on "user device" to 7 in the last 12 months.

October 19: Microsoft has been issued 9 patents focused on "operating system" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued one patent in the last month focused on "operating system", bringing the total patents on "operating system" to 9 in the last 12 months.

October 19: Microsoft has been issued 17 patents focused on "electronic device" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued 2 patents in the last month focused on "electronic device", bringing the total patents on "electronic device" to 17 in the last 12 months.

October 19: Microsoft has been issued 14 patents focused on "display device" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued one patent in the last month focused on "display device", bringing the total patents on "display device" to 14 in the last 12 months.

October 19: Microsoft has been issued 17 patents focused on "computer system" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued one patent in the last month focused on "computer system", bringing the total patents on "computer system" to 17 in the last 12 months.

October 19: Microsoft has been issued 29 patents focused on "computing system" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued one patent in the last month focused on "computing system", bringing the total patents on "computing system" to 29 in the last 12 months.

October 19: Microsoft has been issued 16 patents focused on "machine learning" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued one patent in the last month focused on "machine learning", bringing the total patents on "machine learning" to 16 in the last 12 months.

October 19: Microsoft has been issued 32 patents focused on "client device" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued 3 patents in the last month focused on "client device", bringing the total patents on "client device" to 32 in the last 12 months.

October 19: Microsoft has been issued 48 patents focused on "user interface" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued 4 patents in the last month focused on "user interface", bringing the total patents on "user interface" to 48 in the last 12 months.

October 19: Microsoft has been issued 13 patents focused on "neural network" in 12 months

Microsoft (NASDAQ:MSFT), the NASDAQ's largest Computer software company by market cap has been issued 2 patents in the last month focused on "neural network", bringing the total patents on "neural network" to 13 in the last 12 months.

Fig 8: Ranking

Fri Nov 25, 2022

Reid Hoffman Director of Microsoft in top 5% of publicly traded companies; ranked 1445 by Forbes Billionaires in 2022

Reid Hoffman's performance as Director of Microsoft is ranked in the top 5% of BuySellSignals performers for the past five years; a percentile ranking of 95.8. In the last 5 years the average annualized return to shareholders was 27.4%. The 5-year average return is ranked 1,834 out of 44,026 public companies traded globally. A three-bagger, the present value of US\$1,000 (PV1000) invested 5 years ago is now worth \$3,356, a capital gain of \$2,162 and dividends reinvested of \$194.

Fig 9: Bagger

Mon Sep 19, 2022

Hugh Johnston brings three-bagger value to Microsoft

Monday September 19, 2022

Hugh Johnston was appointed Director of Microsoft (NASDAQ:MSFT) five years ago on September 19, 2017. The present value of USD1,000 (PV1000) invested on the appointment date is \$3,644, for a capital gain of \$2,417 and dividend reinvested of \$227. In the same period the shares were up 241.7% from \$70.9 to \$242.2.

Fig 10: Microsoft issued 438 new patents in the past quarter

Microsoft (MSFT) has been issued 438 new patents by the USPTO & EPO.

This corresponds to an average of 146 patents a month, down 28.8% from an average of 205 patents per month in 2021.

To view details, click on link shown in the DATA & ARCHIVE DOWNLOAD CENTER.

The Past Quarter: Tweets posted by Satya Nadella, CEO

([@satyanadella](#)) Followers 2.6M

- Mon Nov 21, 2022

What a great example of the power of technology to help address some of our biggest challenges. At a time of increasing food insecurity, these local heroes are using our cloud to connect tons of surplus food with those in need.

- Thu Nov 10, 2022

From Copilot for business to Codespaces for all, at GitHub Universe we're bringing our breakthrough offerings to even more organizations and developers around the world.

- Sun Oct 30, 2022

This must be what a professional player lives for - to be a cricketer's cricketer! And yes, for a brief moment, the T20s captured the drama of Test cricket!

- Fri Oct 14, 2022

It's time to transform supply chain operations. That's why we're bringing together data, AI, and collaboration to tackle customers' most urgent supply chain issues.

- Thu Oct 13, 2022

We're bringing Teams Rooms to Cisco meeting room devices, as we work to connect people across the hybrid workplace.

- Wed Oct 12, 2022

Looking forward to #MSIgnite today, where we'll share new innovations across the Microsoft Cloud, as we work to help organizations do more with less. Please join us.

- Oct 12, 2022

With the power of the cloud and AI, we're unlocking new experiences for people to connect and create on Windows PCs.

- Mon Oct 10, 2022

Congratulations to the grand prize winners of this year's Global Hackathon! I am inspired by how you have applied your passion to a worthwhile purpose: developing a way for people to help their loved ones use technology more easily.

- Tue Sep 27, 2022

Thrilled to help the NBA tip off the season with the new NBA App powered by Microsoft Azure.

- Thu Sep 22, 2022

Today, we're sharing new Microsoft Viva innovations and Work Trend Index findings to help leaders end productivity paranoia, rebuild social capital, and re-energize their employees.

- Wed Sep 21, 2022

Today marks the next step on our journey with Windows 11, as we deliver new innovations across security, productivity, and more.

- Sep 21, 2022

With our new Power Up skilling initiative, we're helping people build low-code skills and advance their careers with Power Platform.

- Fri Sep 16, 2022

We're celebrating Hispanic Heritage Month with stories of employee identity and empowerment, as we recognize the impact of this community both at Microsoft and beyond.

- Wed Sep 14, 2022

Announcing updates to Azure Space, as we work with our growing ecosystem of partners to provide low latency access to the cloud from anywhere.

The Past Quarter: News and Buzz

Fig 11: Stock Buzz

Source: The Wall Street Journal

Nov/Oct/Sep	Headline
Tue 08	Microsoft Deal, Not Earnings, Is the Focus for Activision Stock
Thu 13	Even Microsoft Can't Shine Up PCs Right Now
Sun 25	Microsoft, Accenture, and American Tower Boost Dividends

Source: Other Publishers

Nov	Headline	Publisher
Wed 30	Bank of America s Bhavana Bartholf on accelerating innovation, leaving Microsoft for new role	The Business Journals
Wed 30	Microsoft announces quarterly dividend	YAHOO!Finance
Wed 30	Microsoft s Debt Overview	Benzinga.com
Tue 29	Time to buy Microsoft, this investor says	Cantech Letter
Mon 28	Microsoft Unusual Options Activity	Benzinga on MSN
Mon 28	Insiders at Microsoft Corporation (NASDAQ:MSFT) sold US\$30m worth of stock, possibly indicating weakness in the future	Yahoo Finance

Please view more Stock Buzz stories in [DATA DOWNLOAD CENTER](#)

Institutional Ownership as at Sep 30, 2022

Fig 12: Microsoft Top Shareholding Rank in Funds

	Out Of Top 100 Funds	Out Of Top 500 Funds	Out Of Top 1000 Funds	Out Of Total 4318 Funds
Top Shareholding	1	5	9	37
Top 3 Shareholding	35	103	143	339
Top 5 Shareholding	52	169	267	683
Top 10 Shareholding	72	273	482	1598
Top 50 Shareholding	89	424	859	3914

Microsoft is the largest shareholding for 1 of the top 100 largest funds that we track. Microsoft is a top 3 largest shareholding for 35 of the largest 100 funds we track and for 339 of the largest 4318 funds we track. Microsoft is a top 50 largest shareholding for 89 of the largest 100 funds we track and for 3914 out of the largest 4318 funds we track.

[4265 Institutional shareholders Sep 30, 2022 in xls](#)

Fig 13: Reported holdings of institutions end of quarter

As at September 30, 2022 institutions had decreased their holdings to 68.7% of issued capital, down from 70.2% nine months ago.

Quarter - ended	Sep 30	Jun 30	Mar 31	Dec 31, 2021
% of issued capital	68.7	68.4	69.0	70.2

Fig 14: Top 20 Institutional Ownership of Microsoft as at September 30, 2022

As at September 30, 2022, 4223 Institutions held investments in shares of Microsoft. Institutions increased their holdings to 68.7% of issued capital, up from 68.4% as at Jun 30. The largest shareholder was Vanguard Group Inc. with 8.5% of Microsoft. The second largest shareholder was Blackrock Inc. with 7.0%.

*Note: Minimum Core Shareholding is computed on the basis of SEC filings over the last 12 quarters (3 years). A higher % of shareholding above the minimum core holding may be indicative of a potential positioning by an active institution to overweight.

Microsoft Top 12 Index Funds (in desc order of Shares) hold 31.8% [last column shows % above minimum core shareholding]. Please download the spreadsheet to view full list of 1578 Index Funds holding 41.1% of Microsoft as at September 30, 2022.

Institution	Shares	% of Total	Value \$	% above Core*
Vanguard Group Inc.	634,238,715	8.5	147.3 B	3.8
Blackrock Inc.	518,843,676	7.0	120.5 B	2.6
State Street Corporation	295,509,547	4.0	68.6 B	1.0
FMR LLC	204,088,395	2.7	47.4 B	[0]
Price T Rowe Associates Inc.,MD	171,346,779	2.3	39.8 B	[0]
Capital World Investors	97,528,997	1.3	22.7 B	[0]
Capital International Investors	84,987,239	1.1	19.7 B	[0]
Capital Research Global Investors	83,139,067	1.1	19.3 B	[0]
Northern Trust Corp	82,805,401	1.1	19.2 B	[0]
Bank of New York Mellon Corp	77,226,199	1.0	17.9 B	[0]
Wellington Management Group LLP	64,181,185	0.86	14.9 B	5.1
Nuveen Asset Management, LLC	55,685,323	0.75	12.9 B	[0]
% Held by Top 12 Institutional shareholders	2,369,580,523	31.8	550.3 B	

Microsoft Top 8 Active Funds (in desc order of Shares) hold 8.0% [last column shows % above minimum core shareholding]. Please download the spreadsheet to view full list of 2645 Active Funds holding 27.3% of Microsoft as at September 30, 2022.

Institution	Shares	% of Total	Value \$	% above Core*
Geode Capital Management, LLC	139,462,260	1.9	32.4 B	23.0
Morgan Stanley	104,765,804	1.4	24.3 B	78
JP Morgan Chase & Co	92,745,324	1.2	21.5 B	29.9
Bank of America Corp, DE	80,094,799	1.1	18.6 B	13.8
Legal & General Group PLC	52,212,734	0.7	12.1 B	15.3
AllianceBernstein	49,440,386	0.66	11.5 B	10.0
Schwab Charles Investment Management Inc.	40,739,220	0.55	9.5 B	14.9
Goldman Sachs Group Inc.	40,561,263	0.54	9.4 B	30.2
% Held by Top 8 Institutional shareholders	600,021,790	8.0	139.4 B	

Fig 15: Institutional ownership of MSFT at Sep 30: Old North State Trust top increase of 99,450%

As at September 30, 2022, 2010 institutions or 47.1% of MSFT's institutional shareholders had increased their holding of shares in Microsoft from June 30. The top increase was by Old North State Trust which increased its holding by 13,923 shares, or 99,450.0% to 13,937 shares.

Top 25 Increases [September 30, 2022 vs June 30, 2022]

Value is shown in the table below at September 30 MSFT share price of \$232.25.

Institution (CIK)	Shares	Value, \$	% increase
Old North State Trust, LLC (0001760444)	13,923	3.6 M	99,450.0
Kessler Investment Group, LLC (0001525947)	13,065	3.4 M	13,898.9
Mitsubishi UFJ Securities International PLC (0001597694)	385,824	101 M	7,501.9
Bluefin Capital Management, LLC (0001144208)	265,157	69.4 M	4,674.8
Kathleen S. Wright Associates Inc. (0001908433)	87	22,785	4,350.0
Bill & Melinda Gates Foundation Trust (0001166559)	38,320,050	10 B	4,056.7
Wipfli Financial Advisors LLC (0001830600)	77,147	20.2 M	3,932.1
Guardian Wealth Advisors, LLC (0001858828)	50,760	13.3 M	3,612.8
Crystal Rock Capital Management (0001510668)	447,854	117.3 M	3,368.6
Point72 Asia (Hong Kong) Ltd (0001599822)	19,241	5 M	3,088.4
Edge Capital Group, LLC (0001767220)	80,353	21 M	2,841.3
Lombard Odier Asset Management (USA) Corp (0001491719)	85,939	22.5 M	2,685.6
DARK Forest Capital Management LP (0001853322)	42	11,000	2,100.0
Weiss Asset Management LP (0001357550)	43,160	11.3 M	2,045.5
Artemis Wealth Advisors, LLC (0001767435)	4,335	1.1 M	1,961.5
Laurion Capital Management LP (0001390202)	623,228	163.2 M	1,657.4
Atom Investors LP (0001738902)	42,525	11.1 M	1,556.0
Zevenbergen Capital Investments LLC (0001276918)	420,682	110.2 M	1,518.7
Nellore Capital Management LLC (0001846677)	127,700	33.4 M	1,277.0
Octahedron Capital Management L.P. (0001891904)	15,500	4.1 M	1,192.3
Advanced Research Investment Solutions, LLC (0001802867)	1,521	398,345	956.6
Candlestick Capital Management LP (0001789779)	161,087	42.2 M	851.7
Bell Rock Capital LLC (0001756283)	13,038	3.4 M	717.6
American Investment Services, Inc. (0001369913)	7,596	2 M	702.0
Maxi Investments Cy Ltd (0001838222)	26,000	6.8 M	650.0
Total	41,245,814	10.8 billion	

Fig 16: Institutional ownership of MSFT at September 30, 2022: Bill & Melinda Gates Foundation Trust top increase by worth

Top 25 Increases by worth [September 30, 2022 vs June 30, 2022]

Value is shown in the table below at September 30 MSFT share price of \$232.25.

Institution (CIK)	Shares	Worth Change, \$
Bill & Melinda Gates Foundation Trust	38,320,050	10 B
Amundi	10,560,679	2.8 B
Voya Investment Management LLC	6,354,837	1.7 B

Vanguard Group Inc.	6,129,708	1.6 B
Mitsubishi UFJ Asset Management Co., Ltd.	3,471,095	909.1 M
Morgan Stanley	2,834,059	742.2 M
Geode Capital Management, LLC	2,516,899	659.2 M
California Public Employees Retirement System	2,321,002	607.9 M
Barclays PLC	2,105,625	551.5 M
State Street Corporation	1,951,554	511.1 M
JP Morgan Chase & Co	1,710,839	448.1 M
Hudson Bay Capital Management LP	1,358,600	355.8 M
Dodge & Cox	1,219,159	319.3 M
Assenagon Asset Management S.A.	1,205,938	315.8 M
Standard Life Aberdeen plc	1,129,756	295.9 M
Lucia Wealth Services, LLC	1,060,369	277.7 M
Tiger Global Management LLC	845,930	221.5 M
Natixis	803,840	210.5 M
Clearbridge Investments, LLC	783,212	205.1 M
Candriam Luxembourg S.C.A.	776,361	203.3 M
Deutsche Bank AG	744,236	194.9 M
Axiom International Investors LLC /DE	741,842	194.3 M
Tower Research Capital LLC (TRC)	737,565	193.2 M
Veritas Asset Management LLP	693,041	181.5 M
Voloridge Investment Management, LLC	671,433	175.8 M
Total	91,047,629	23.8 billion

Fig 17: Institutional ownership of MSFT at Sep 30: American Planning Services top decrease of 100%

1740 Institutional shareholders decreased their holdings in Q3/2022. The top decrease was American Planning Services who reduced their shareholding in Microsoft by 1,378 shares (99.9%) from 1,379 as at June 30 to 1 as at September 30.

Top 25 Decreases [September 30, 2022 vs June 30, 2022]

Value is shown in the table below at September 30 MSFT share price of \$232.25.

Institution (CIK)	Shares	Value, \$	% decrease
American Planning Services, Inc. (0001906656)	1,378	(360,894)	99.9
Premier Fund Managers Ltd (0001673907)	50,208	(13.1 M)	98.8
Barden Capital Management, Inc. (0001906798)	328,726	(86.1 M)	98.0
Leverage Partners Absolute Return Fund SPC (0001662944)	50,700	(13.3 M)	97.9
FFCM LLC (0001479598)	3,412	(893,592)	97.8
Capitolis Advisors LLC (0001858879)	586,347	(153.6 M)	97.3
Barrier Capital Management, LLC (0001909089)	34,860	(9.1 M)	96.1
Cadence Bank NA (0001080381)	44,961	(11.8 M)	93.3
WEDGE Capital Management LLP,NC (0001015308)	165,862	(43.4 M)	93.1
Second Half Financial Partners, LLC (0001946654)	12,382	(3.2 M)	91.8
Laird Norton Trust Company, LLC (0000723204)	758,273	(198.6 M)	91.3
Hartline Investment Corp (0000945625)	91,150	(23.9 M)	91.2
Triasima Portfolio Management inc. (0001938757)	309,298	(81 M)	90.2
Ergoteles LLC (0001569136)	29,150	(7.6 M)	89.7

Udine Wealth Management, Inc. (0001907240)	29,846	(7.8 M)	88.8
Sanford Advisory Services, LLC (0001932496)	12,824	(3.4 M)	88.2
Regal Wealth Group, Inc. (0001656537)	8,067	(2.1 M)	86.4
Bullseye Investment Management, LLC (0001912451)	10,425	(2.7 M)	86.3
Alpha Paradigm Partners, LLC (0001818309)	6,146	(1.6 M)	86.1
Blue Square Asset Management, LLC (0001769578)	5,828	(1.5 M)	83.7
Sailer Financial LLC (0001803898)	5,711	(1.5 M)	83.4
Range Financial Group LLC (0001928635)	18,802	(4.9 M)	82.8
Paloma Partners Management Co (0001103882)	4,520	(1.2 M)	82.2
Wolverine Trading, LLC (0000927337)	54,898	(14.4 M)	81.9
Liberty Capital Management, Inc. (0001366838)	22,060	(5.8 M)	81.8
Total	2,645,834	(692.9 million)	

Fig 18: Institutional ownership of MSFT at Sep 30: AKO Capital top new shareholder

An analysis conducted after the mid - quarter deadline of November 14 for Q3 SEC filings by 6476 institutions shows that there were 27 new institutional shareholders. AKO Capital (1376879) was the largest new shareholder with 494,820 shares valued at \$114.9 million as at September 30.

Top 25 New shareholders as at September 30, 2022

Value is shown at price of September 30, 2022 (in desc order of Shares)

Institution (CIK)	Shares	Value, \$
AKO Capital LLP (0001376879)	494,820	114.9 M
Covea Finance (0001636948)	398,746	92.6 M
Paralel Advisors LLC (0001895911)	200,000	46.4 M
XN LP (0001756558)	127,497	29.6 M
Davide Leone & Partners Investment Co Ltd. (0001767846)	72,921	16.9 M
Teewinot Capital Advisers, LLC (0001574886)	63,583	14.8 M
Howard Hughes Medical Institute (0000810386)	37,000	8.6 M
Prudence Investment Management (Hong Kong) Ltd. (0001909568)	36,000	8.4 M
Lakehouse Capital Pty Ltd (0001844830)	31,442	7.3 M
Franchise Capital Ltd (0001859388)	30,449	7.1 M
Point72 Europe (London) LLP (0001698051)	30,400	7.1 M
Sycal Advisors (NY) LLC (0001811522)	21,700	5 M
Highline Capital Management LLC (0001166850)	20,700	4.8 M
Alta Advisers Ltd (0001536114)	19,600	4.6 M
Vetamer Capital Management, L.P. (0001880666)	14,494	3.4 M
Zeal Asset Management Ltd (0001597741)	10,238	2.4 M
Mount Capital Ltd (0001896379)	8,700	2 M
Dalton Investments LLC (0001388838)	8,500	2 M
Castleknight Management LP (0001835751)	7,475	1.7 M
Lutz Financial Services LLC (0001737112)	2,601	604,071
Keystone Financial Services (0001865158)	2,179	506,063
Safeguard Financial, LLC (0001922498)	1,743	404,804
Lanham O'Dell & Company, Inc. (0001926344)	1,318	306,100
Pacific Wealth Management (0001852338)	1,189	276,140

Kamunting Street Capital Management, LP (0001317267)	1,000	232,245
Total	1,644,295	381.9 million

Fig 19: Institutional ownership of MSFT at Sep 30: California State Teachers Retirement System top exit

An analysis conducted after the mid - quarter deadline of November 14 for 20223 SEC filings by 6476 institutions shows that there were 213 exits. California State Teachers Retirement System was the largest exit with 12,280,993 shares valued at 3.1 B as at September 30.

Institution (CIK)	Shares	Value, \$
California State Teachers Retirement System (0001081019)	12,280,993	3.1 B
National Pension Service (0001608046)	9,425,772	2.4 B
Loring Wolcott & Coolidge Fiduciary Advisors LLP /MA (0000932974)	2,075,543	530.4 M
Alphinity Investment Management Pty Ltd (0001731012)	1,279,786	327.1 M
Industrial Alliance Investment Management Inc. (0001630798)	879,226	224.7 M
Stonehage Fleming Financial Services Holdings Ltd (0001786379)	758,537	193.9 M
Coldstream Capital Management Inc. (0001082339)	752,354	192.3 M
Maryland State Retirement & Pension System (0001795552)	576,554	147.3 M
Tesco Pension Investment Ltd (0001562744)	538,610	137.7 M
EP Wealth Advisors, Inc. (0001540569)	485,378	124 M
MFN Partners Management, LP (0001732811)	461,800	118 M
North Peak Capital Management, LLC (0001747888)	448,283	114.6 M
Davidson Kempner Capital Management LP (0001595082)	362,119	92.5 M
Central Trust & Investment Co (0000044365)	287,787	73.5 M
Advisor Partners LLC (0001456114)	287,654	73.5 M
Obermeyer Asset Management Co (0001349654)	257,385	65.8 M
Smith Chas P & Associates PA CPAS (0001082509)	231,396	59.1 M
Toroso Investments, LLC (0001600064)	226,689	57.9 M
Provident Investment Management, Inc. (0001076964)	193,539	49.5 M
TPI Fund Managers Ltd (0001785438)	189,992	48.6 M
Highpoint Advisor Group LLC (0001616034)	169,573	43.3 M
LMR Partners LLP (0001578621)	166,753	42.6 M
HRT Financial LLC (0001475597)	154,697	39.5 M
Ifp Advisors, Inc (0001641866)	152,626	39 M
DRW Securities, LLC (0001481986)	141,577	36.2 M
Total	32,784,623	8.4 billion

Fig 20: Institutional Shareholder Activity - Net Buying/(Selling) by Institutions Trailing 12 Months (TTM); \$ Value based on stock price of \$241.68 on November 17, 2022

Institution	Q3'22	Q2'22	Q1'22	Q4'21	Total TTM	\$ Value
Morgan Stanley	2,834,059	34,290,446	2,303,465	(2,280,126)	37,147,844	9 billion
Bill & Melinda Gates Foundation Trust	38,320,050		(993,083)	(1,000,000)	36,326,967	8.8 billion
Price T Rowe Associates Inc.,MD	(24,513,040)	556,020	(8,893,102)	6,617,448	(26,232,674)	(6.3 billion)

Institution	Q3'22	Q2'22	Q1'22	Q4'21	Total TTM	\$ Value
Vanguard Group Inc.	6,129,708	6,510,850	5,648,095	2,168,376	20,457,029	4.9 billion
JP Morgan Chase & Co	1,710,839	8,436,186	(1,318,673)	6,739,430	15,567,782	3.8 billion
Geode Capital Management, LLC	2,516,899	3,520,660	4,317,583	3,027,306	13,382,448	3.2 billion
Magellan Asset Management Ltd	(1,607,327)	(1,227,908)	(4,027,058)	(5,981,400)	(12,843,693)	(3.1 billion)
Capital World Investors	(1,296,480)	(5,881,538)	(3,010,782)	(2,641,990)	(12,830,790)	(3.1 billion)
Blackrock Inc.	(3,708,209)	(1,197,985)	4,714,236	11,918,602	11,726,644	2.8 billion
FMR LLC	(3,113,246)	(3,143,054)	(5,032,538)	(354,235)	(11,643,073)	(2.8 billion)
Wells Fargo & Company	(520,167)	(3,236,385)	1,819,498	(9,587,938)	(11,524,992)	(2.8 billion)
Capital Research Global Investors	(1,197,447)	(2,087,437)	(6,444,231)	(1,414,452)	(11,143,567)	(2.7 billion)
Henderson Group PLC	(1,487,261)	(5,474,576)	(1,944,094)	471,726	(8,434,205)	(2 billion)
Allianz Asset Management AG	(8,153,137)	(82,729)	221,825		(8,014,041)	(1.9 billion)
Bank of America Corp, DE	(1,677,588)	3,832,548	6,041,228	(918,821)	7,277,367	1.8 billion
Tiger Global Management LLC	845,930	(2,154,361)	(1,169,695)	(4,649,500)	(7,127,626)	(1.7 billion)
Bank of Nova Scotia	(1,330,751)	(1,470,891)	(5,575,775)	1,391,227	(6,986,190)	(1.7 billion)
Capital International Investors	(129,640)	(1,565,518)	(4,303,134)	(915,914)	(6,914,206)	(1.7 billion)
Northern Trust Corp	(1,222,385)	(2,685,557)	(1,697,656)	(1,181,128)	(6,786,726)	(1.6 billion)
Voya Investment Management LLC	6,354,837	(231,257)	451,397	145,158	6,720,135	1.6 billion
Amundi	10,560,679	616,794	(1,178,915)	(3,748,039)	6,250,519	1.5 billion
Norges Bank				(5,538,349)	(5,538,349)	(1.3 billion)
Bank of Montreal, CAN	(951,512)	254,029	(5,354,559)	528,785	(5,523,257)	(1.3 billion)
Healthcare of Ontario Pension Plan Trust Fund	(71,235)	(3,554,724)	(394,285)	(1,242,807)	(5,263,051)	(1.3 billion)
Goldman Sachs Group Inc.	509,967	4,875,420	2,833,875	(3,246,451)	4,972,811	1.2 billion
UBS Global Asset Management Americas Inc.	(1,107,993)	(932,124)	(1,711,455)	(1,022,370)	(4,773,942)	(1.2 billion)
Mitsubishi UFJ Asset Management Co., Ltd.	3,471,095	320,211	367,191	541,314	4,699,811	1.1 billion
Bank of New York Mellon Corp	(1,904,485)	(767,640)	(447,095)	(1,543,174)	(4,662,394)	(1.1 billion)
Barclays PLC	2,105,625	219,842	(5,825,992)	(1,113,287)	(4,613,812)	(1.1 billion)
Invesco Ltd.	538,709	715,679	1,671,507	1,136,899	4,062,794	981.9 million
UBS Group AG	(766,237)	(1,758,650)	657,812	(2,087,889)	(3,954,964)	(955.8 million)
Primecap Management Co,CA	(377,480)	(760,773)	(1,613,052)	(984,910)	(3,736,215)	(903 million)
Fisher Asset Management, LLC	322,423	822,443	1,027,207	1,320,202	3,492,275	844 million
BNP Paribas Arbitrage, SA	(2,058,225)	2,449,978	204,336	2,861,499	3,457,588	835.6 million
TCI Fund Management Ltd	248,642	2,364,269	581,722		3,194,633	772.1 million
Macquarie Group Ltd	(483,190)	(1,856,684)	(801,451)	(14,933)	(3,156,258)	(762.8 million)
TD Asset Management Inc.	(148,716)	(46,920)	101,848	3,207,415	3,113,627	752.5 million
Toronto Dominion Bank	(747,173)	50,348	(815,334)	(1,584,188)	(3,096,347)	(748.3 million)

Institution	Q3'22	Q2'22	Q1'22	Q4'21	Total TTM	\$ Value
Schroder Investment Management Group	231,584	679,911	455,658	1,632,485	2,999,638	725 million
Mirae Asset Global Investments Co., Ltd.	(74,802)	696,960	943,108	1,427,141	2,992,407	723.2 million
Jennison Associates LLC	(134,726)	96,222	2,696,424	274,354	2,932,274	708.7 million
Generation Investment Management LLP	(387,306)	3,690,460	(523,800)	21,476	2,800,830	676.9 million
Fundsmith LLP	(735,920)	2,102	(2,983,934)	968,000	(2,749,752)	(664.6 million)
Fundsmith Investment Services Ltd.	(3,503)	221,693	2,494,069	34	2,712,293	655.5 million
Edgewood Management LLC	(1,202,429)	(508,352)	(37,886)	(949,387)	(2,698,054)	(652.1 million)
Jackson Square Partners, LLC	(57,657)	(1,398,070)	(102,318)	(1,075,918)	(2,633,963)	(636.6 million)
AMP Capital Investors Ltd			(2,550,355)		(2,550,355)	(616.4 million)
AllianceBernstein	208,765	1,143,007	1,244,528	(69,126)	2,527,174	610.8 million
Swiss National Bank	(102,700)	1,200	3,757,500	(1,155,700)	2,500,300	604.3 million
Ameriprise Financial Inc.	(651,557)	(64,726)	1,248,075	1,838,989	2,370,781	573 million
Canada Pension Plan Investment Board	(529,827)	(235,510)	(1,399,038)	(198,620)	(2,362,995)	(571.1 million)
APG Asset Management N.V.	238,896	(470,200)	(665,526)	(1,456,318)	(2,353,148)	(568.7 million)
Schwab Charles Investment Management Inc.	497,117	378,830	766,487	652,526	2,294,960	554.6 million
Capitolis Advisors LLC	(586,347)	111,706	(2,805,208)	1,004,773	(2,275,076)	(549.8 million)
Loomis Sayles & Co LP	(304,472)	(906,233)	(452,019)	(460,986)	(2,123,710)	(513.3 million)
D. E. Shaw & Co., Inc.	328,384	(491,125)	(80,852)	(1,774,164)	(2,017,757)	(487.7 million)
Fred Alger Management Inc.	(148,925)	(855,638)	(436,481)	(547,233)	(1,988,277)	(480.5 million)
Allspring Global Investments Holdings, LLC	168,723	(1,283,643)	(834,240)		(1,949,160)	(471.1 million)
Winslow Capital Management, LLC	(1,238,263)	(1,022,388)	259,889	60,406	(1,940,356)	(468.9 million)
Lone Pine Capital LLC	(649,401)	(1,515,416)	302,617		(1,862,200)	(450.1 million)
Hudson Bay Capital Management LP	1,358,600	(652,000)		1,152,000	1,858,600	449.2 million
Assenagon Asset Management S.A.	1,205,938	(2,231,485)	518,766	2,277,803	1,771,022	428 million
Soroban Capital Partners LLC	(1,035,711)	(160,858)	(533,584)		(1,730,153)	(418.1 million)
PGGM Investments	(1,642,642)			(63,608)	(1,706,250)	(412.4 million)
Natixis	803,840	(669,078)	762,760	(2,585,984)	(1,688,462)	(408.1 million)
State of Wisconsin Investment Board	(914,937)	(283,736)	(287,424)	(194,380)	(1,680,477)	(406.1 million)
Proshare Advisors LLC	(1,055,095)	(3,068,231)	(451,081)	2,913,141	(1,661,266)	(401.5 million)
Marshall Wace LLP	124,762	30,195	(1,817,655)	3,319,846	1,657,148	400.5 million
National Bank of Canada /Fi/	(1,226,103)	(782,138)	352,340		(1,655,901)	(400.2 million)
Parametric Portfolio Associates LLC			1,094,854	498,556	1,593,410	385.1 million

Institution	Q3'22	Q2'22	Q1'22	Q4'21	Total TTM	\$ Value
Diamond Hill Capital Management Inc.	56,899	1,511,097	3,820	(269)	1,571,547	379.8 million
HSBC Holdings PLC	(608,434)	596,653	(452,756)	(1,088,083)	(1,552,620)	(375.2 million)
Alkeon Capital Management LLC	(120,967)	(430,725)	(600,583)	(400,000)	(1,552,275)	(375.2 million)
Artisan Partners Limited Partnership	(845,381)	(521,961)	(259,851)	97,968	(1,529,225)	(369.6 million)
Jane Street Group, LLC	65,586	340,186	(578)	1,123,241	1,528,435	369.4 million
Eaton Vance Management	255,894	(250,720)	1,493,332	26,798	1,525,304	368.6 million
Mackenzie Financial Corp	(18,122)	11,182	(1,066,709)	(420,800)	(1,494,449)	(361.2 million)
Deutsche Bank AG	744,236	(2,608,564)	(798,686)	1,211,612	(1,451,402)	(350.8 million)
BNP Paribas Investment Partners S.A.	17,845	973,630	427,369	1,042	1,419,886	343.2 million
Parallax Volatility Advisers, LP	660	(242,963)	(1,176,501)		(1,418,804)	(342.9 million)
Skandinaviska Enskilda Banken AB (publ)	(262,645)	(396,235)	(494,355)	(245,113)	(1,398,348)	(338 million)
Vontobel Asset Management Inc.	(91,672)	180,264	(54,166)	(1,387,175)	(1,352,749)	(326.9 million)
William Blair Investment Management, LLC	12,606	525,013	165,512	636,404	1,339,535	323.7 million
Manufacturers Life Insurance Company	(169,312)	(1,080,589)	1,066,513	(1,144,361)	(1,327,749)	(320.9 million)
Brown Brothers Harriman & Co	209,631	44,382	1,074,989	(1,788)	1,327,214	320.8 million
AQR Capital Management LLC	55,958	(750,479)	(369,133)	(251,663)	(1,315,317)	(317.9 million)
40 North Management LLC	(600,000)			(700,000)	(1,300,000)	(314.2 million)
Rhumblin Advisers	551,801	383,796	152,444	201,436	1,289,477	311.6 million
1832 Asset Management L.P.	(14,586)	(750,226)	163,051	(657,265)	(1,259,026)	(304.3 million)
AMF Pensionsforsakring AB	(484,102)	(524,689)	61,003	(279,640)	(1,227,428)	(296.6 million)
Eagle Capital Management LLC	138,986	(658,851)	(288,179)	(398,786)	(1,206,830)	(291.7 million)
DSM Capital Partners LLC	(179,195)	(325,881)	(464,946)	(232,098)	(1,202,120)	(290.5 million)
Envestnet Asset Management Inc.	285,069	319,905	331,053	258,491	1,194,518	288.7 million
Dodge & Cox	1,219,159	(384,729)	180,126	(2,207,422)	(1,192,866)	(288.3 million)
Franklin Resources Inc.	588,164	169,847	331,206	71,295	1,160,512	280.5 million
Lucia Wealth Services, LLC	1,060,369	(360,805)	(302,353)	758,292	1,155,503	279.3 million
Robeco Institutional Asset Management B.V.	(658,835)	(227,595)	306,878	(557,482)	(1,137,034)	(274.8 million)
New York State Common Retirement Fund	(1,145,679)	(181,625)	40,408	150,090	(1,136,806)	(274.7 million)
Third Point LLC			(1,100,000)		(1,100,000)	(265.8 million)
Altarock Partners LLC	86,500	96,700	915,133		1,098,333	265.4 million
State Street Corporation	1,951,554	(6,540,249)	(2,443,627)	8,108,943	1,076,621	260.2 million
Laird Norton Trust Company, LLC	(758,273)	(270,167)	(3,282)	(22,666)	(1,054,388)	(254.8 million)
First Republic Investment Management, Inc.	295,352	276,736	373,484	91,840	1,037,412	250.7 million

Institution	Q3'22	Q2'22	Q1'22	Q4'21	Total TTM	\$ Value
Bluespruce Investments, LP	225,531	496,395	521,850	(221,228)	1,022,548	247.1 million
Korea Investment Corp	145,253	(237,400)	816,064	291,089	1,015,006	245.3 million
Ontario Teachers Pension Plan Board	(1,389)	225,493	470,591	305,492	1,000,187	241.7 million
Total					(8,013,971)	(1.9 billion)

Bearish Signals

Fig 21: Rank in the bottom 19% by Relative Valuation in the NASDAQ market

Description	Value	Rank
Price/Earnings/Growth	1.32	In Bottom 19%
Dividend Yield %	1%	In Bottom 18%
Price to Sales	9.4	In Bottom 8%
Price to Book Value	24.9	In Bottom 2%

Downtrend

Beta < 1 combined with price fall. The Beta of the stock is 1.0.

Price/Moving Average Price of 0.94:

- The Price/MAP 200 for Microsoft is 0.94. Being less than 1 is a bearish indicator. The stock is trading below both its MAPs and the 50-day MAP of \$236.63 is lower than the 200-day MAP of \$264.28, a second bearish indicator.

Past Quarter:

- In the last three months the stock has hit a new 52-week low fourteen times, pointing to a significant downtrend.

Trailing Relative Strength (6 months) at 32 percentile:

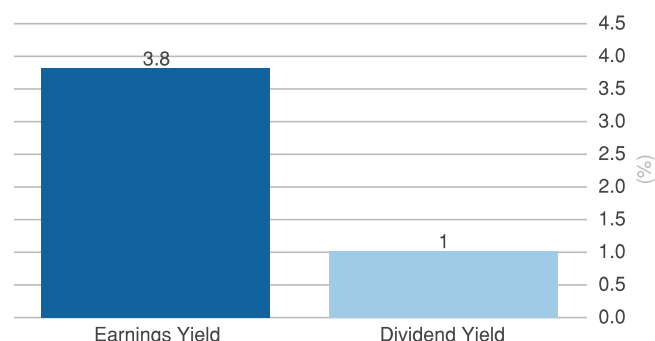
- The stock has a 6-month relative strength of 32 in the NASDAQ market of 3,296 stocks, 4 units and 3 preference stocks which means it has underperformed 68% of the market.

Overvaluation

- Earnings yield of 3.9% is less attractive compared with the NASDAQ average earning yield of 4.3%.
- The earnings yield of 3.9% is 1.0 times the 10-year bond yield of 3.7%.

(All figures in %)

Earnings Yield	3.9
NASDAQ avg	4.3
Dividend Yield	1.0
Bond Yield	3.7



MCap/Total Assets:

- Tobin's Q Ratio, defined as MCap divided by Total Assets, is 5.1. Compared with the rest of the market the stock is overvalued and ranks in the bottom 6% of stocks by value of Q Ratio.

Overbought/Bearish Signals

- The Relative Strength Index (RSI) of 74.6 has penetrated the overbought line of 70, suggesting the price gain of 3% in the last 14 days is unusually high.
- The stock is overbought according to the Williams % R indicator of -3.7, suggesting the price is close to its 14-day high of \$250.19.

Ongoing Bearish Parameters

Fig 22: Rank in the bottom 17% by Growth in the NASDAQ market

Description	Value	Rank
EPS Growth %	19.5	In Bottom 17%

Fig 23: Present Value of \$1000 Invested in the Past [3 Mo, 1 Yr]; The Worst Periods with PV\$1000 < 956

PV\$1,000	3 mo ago	1 yr ago
MSFT.NASDAQ	\$955	\$769
Computer Software sector	\$953	\$728
NASDAQ-100 Index	\$942	\$746

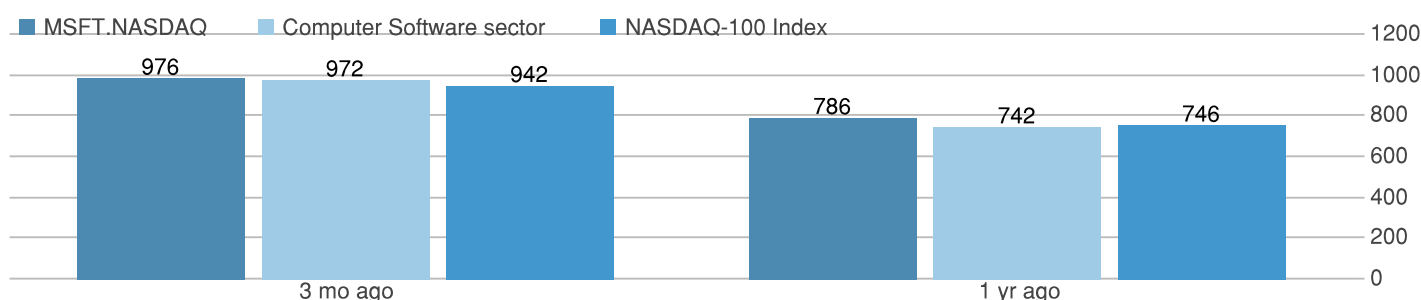


Fig 24: Past quarter: price fall of 4.8%

3-Month price change of -4.8% for Microsoft underperformed the change of -2% in the NASDAQ-100 Index for a relative price change of -2.8%.

Price Change %	Quarter
Microsoft	-4.8
Computer Software sector	-4.7
NASDAQ-100 Index	-2

Fig 25: Moving Annual Return of -23.0% in the past year

Moving Annual Return was -23.0% in the past year. Based on a dynamic start date of 5 years ago, the real rate of return has averaged 31.2%

MSFT	Close (\$)	Dividends (\$)	Capital Gain / (Loss) %	% Yield	Annual Return %
Nov 30	249.6	2.54	(23.8)	0.8	(23.0)
1 Yr ago	327.52	2.3	54.9	1.1	56.0
2 Yrs ago	211.46	2.09	43.7	1.4	45.1
3 Yrs ago	147.17	1.89	39.4	1.8	41.2
4 Yrs ago	105.56	1.72	34.5	2.2	36.7

Close 5 years ago \$78.48

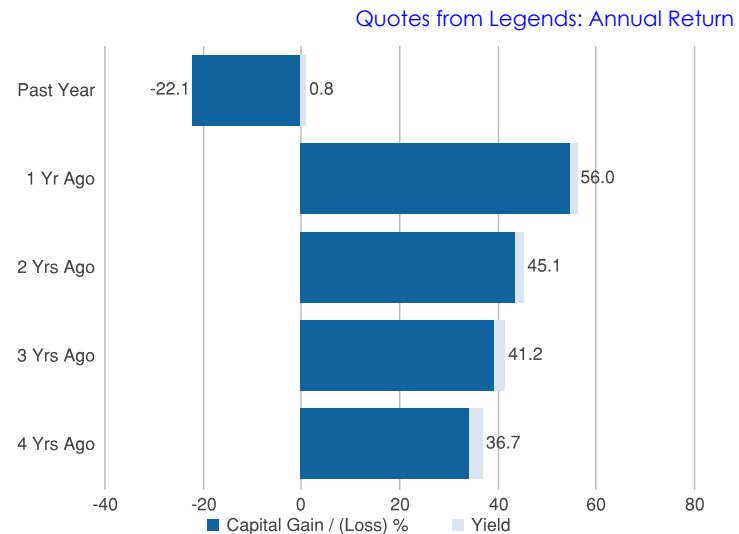


Fig 26: Annualised Period-based Total Shareholder Returns [TSR %]: The Worst Period with TSR < -23%

TSR %	1 yr
MSFT.NASDAQ	-23.1

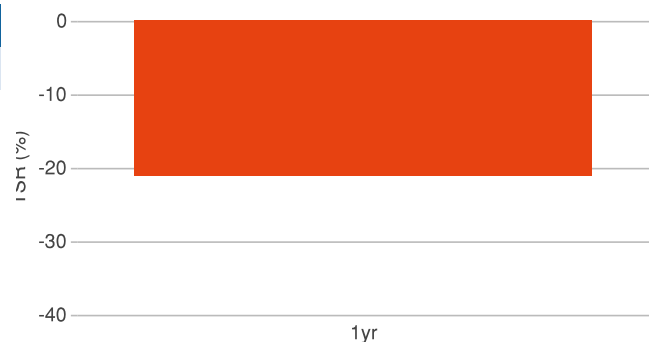


Fig 27: % Growth in EPS > RPS

EPS growth has consistently exceeded growth in RPS [Revenue Per Share].

EPS growth: Sequential EPS growth (Q1 2023 vs Q4 2022) was up 4.9% and PCP EPS growth (Q1 2023 vs Q1 2022) was down 13.9%. FY EPS growth (FY2022 vs FY2021) was up 19.5%.

RPS growth: Sequential growth in Revenue per share (Q1 2023 vs Q4 2022) was down 2.7% and PCP growth in Revenue per share (Q1 2023 vs Q1 2022) was up 11.8%. FY growth in Revenue per share (FY2022 vs FY2021) was up 19.0%.

(All figures in %)

Sequential growth in EPS (Q1 2023 vs Q4 2022)	4.9
Sequential growth in RPS (Q1 2023 vs Q4 2022)	-2.7
PCP growth in EPS (Q1 2023 vs Q1 2022)	-13.9
PCP growth in RPS (Q1 2023 vs Q1 2022)	11.8
FY growth in EPS (FY2022 vs FY2021)	19.5
FY growth in RPS (FY2022 vs FY2021)	19.0

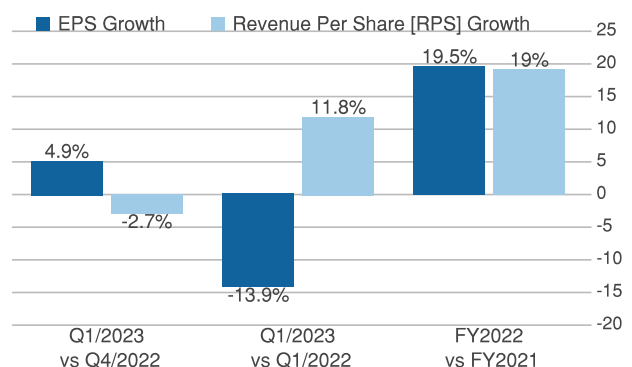


Fig 28: Price < Moving Avg Price

In the last 30 days the 200-day Moving Avg Price has exceeded the share price on 22/22 days; a bearish signal.

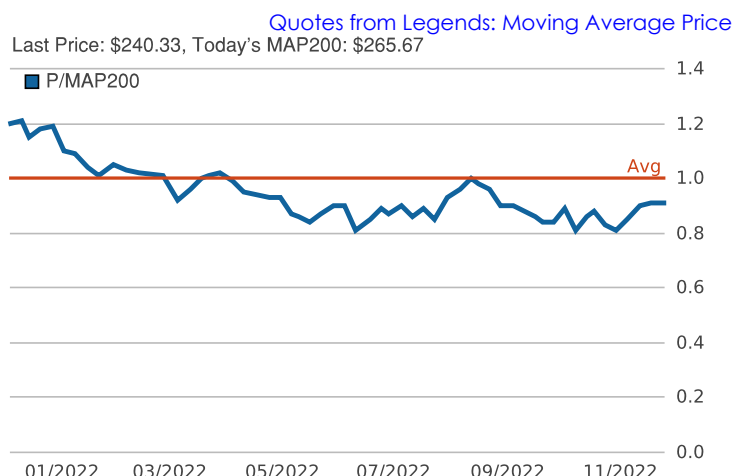


Fig 29: Rank in the NASDAQ-100 Index

Description	Value	Rank
PV\$1000 (1Year) \$	786	55
% Change YTD	-23.8	54

Bullish Signals

Fig 30: PAST MONTH: MODERATE MOMENTUM UP - MSFT climbs 10.2% on volume 0.9 times average

↑ [up \$23.66]

Microsoft outperformed the NASDAQ-100 Index on 11 days and underperformed it on 10 days. The price ranged between a low of 213.65 on Thursday, 3 Nov and a high of 255.14 on Wednesday, 30 Nov.

Day	Headline	Price [USD]	Change %	RPC % *	Momentum	Comment
Nov 01	Loses \$26 billion (1.5%) in MCap, steepest heavyweight fall in Computer software sector	227.53	-1.7	-0.7	↓	Price fall on falling relative strength
Nov 02	Up 0.4% on analyst upgrade	219.48	-3.5	-0.1	↓	Steepest Fall; VI*=1.2
Nov 03	Loses \$30 billion (1.8%) in MCap, steepest heavyweight fall in Computer software sector	213.65	-2.7	-0.7	↓	Month-low of 213.65; VI*=1.2
Nov 04	Up 2.1% after an upgrade this week	220.77	3.3	1.8	↑	VI*=1.2
Nov 07	Up 2.9% after a second downgrade	227.23	2.9	1.8	↑	Price fall on falling relative strength
Nov 08	Consolidates after 2 days of consecutive rises	228.23	0.4	-0.3	↑	Rises for a third consecutive day

Nov 09	Loses \$27 billion (1.6%) in MCap, steepest heavyweight fall in Computer software sector	223.88	-1.9	0.5 ↓	Price/MAP200 below 1 and falling
Nov 10	Adds \$109 billion (6.5%) in MCap, top heavyweight rise in Computer software sector	242.3	8.2	0.7 ↑	Top Rise; VI*=1.5
Nov 11	Up 1.7% after a second downgrade	246.42	1.7	-0.1 ↑	VI*=1.1
Nov 14	Falls 1.6%	240.87	-2.2	-1.3 ↓	Price/MAP200 below 1 and falling
Nov 15	Rises on increasing volatility	241.29	0.2	-1.3 ↑	Price rise on rising relative strength
Nov 16	Up 0.4% after a second downgrade	241.73	0.2	1.6 ↑	Price/MAP200 below 1 and falling
Nov 17	In 3rd consecutive rise; ex-Dividend	241.68	-0.02	0.2 ↓	Price rise on rising relative strength
Nov 18	Falls	241.22	-0.2	-0.2 ↓	Price/MAP200 below 1 and falling
Nov 21	Increases \$1.26	242.05	0.3	1.4 ↑	Price rise on rising relative strength
Nov 22	Increases \$1.69	245.03	1.2	-0.2 ↑	Rises for a second consecutive day
Nov 23	Adds \$19 billion (1.0%) in MCap, top heavyweight rise in Computer software sector	247.58	1.0	0.1 ↑	Rises for a third consecutive day
Nov 25	Falls 0.5% from 14-day high	247.49	-0.04	0.7 ↓	Price fall on slipping relative strength
Nov 28	Loses \$45 billion (2.5%) in MCap, steepest heavyweight fall in Computer software sector	241.76	-2.3	-0.9 ↓	Price/MAP200 below 1 and falling
Nov 29	Falls \$1.81	240.33	-0.6	0.1 ↓	Price/MAP200 below 1 and falling
Nov 30	Adds \$69 billion (3.9%) in MCap, top heavyweight rise in Computer software sector	255.14	6.2	1.6 ↑	Month-high of 255.14; VI*=1.5

* RPC - Relative Price Change is % price change of stock less % change of the NASDAQ-100 Index.

VI= Volume Index, 1 is avg.

PAST WEEK: WEAK MOMENTUM UP - MSFT strengthens 0.8% on volume 0.6 times average

Microsoft (MSFT) outperformed the NASDAQ-100 Index in 4 out of 5 days. The price ranged between a low of \$240.33 on Tuesday Nov 29 and a high of \$249.60 on Wednesday Nov 30.

Nov	Microsoft	Close [\$]	Change %	RPC % *	Comment
Wed 23	Adds \$19 billion (1.0%) in MCap, top heavyweight rise in Computer software sector	247.58	1.0	0.1	Rises for a third consecutive day
Fri 25	Falls 0.5% from 14-day high	247.49	-0.04	0.7	Price fall on slipping relative strength
Mon 28	Loses \$45 billion (2.5%) in MCap, steepest heavyweight fall in Computer software sector	241.76	-2.3	-0.9	Steepest Fall
Tue 29	Falls \$1.81	240.33	-0.6	0.1	Week-low of 240.33
Wed 30	Adds \$69 billion (3.9%) in MCap, top heavyweight rise in Computer software sector	249.6	3.9	0.7	Week-high of 249.6; Top Rise

* RPC - Relative Price Change is % price change of stock less % change of the NASDAQ-100 Index.

Fig 31: Rank in the top 14% by Relative Valuation in the NASDAQ market

Description	Value	Rank
EV/EBITDA	21.7	In Top 14%

Fig 32: Rank in the top 19% by Price Performance in the NASDAQ market

Description	Value	Rank
1-month Price Change %	7.8	In Top 19%

Uptrend

Positive MACD:

- The Moving Average Convergence Divergence (MACD) indicator of 12-day Exponential Moving Average (EMA) of 242.65 minus the 26-day EMA of 239.87 is positive, suggesting a bullish signal. Both the 12-day EMA as well as the 26-day EMA are rising, another bullish signal.

Past Quarter:

The Best 3 weeks in the past quarter

In the past quarter the week beginning Monday November 07 saw the highest weekly rise of 11.6% for a relative price increase of 2.8%.

Mon-Fri	Change %	NASDAQ-100 Index Change %	RPC %	Vol Ind [1 is avg]
Nov 07-11	11.6	8.8	2.8	1.1
Oct 17-21	5.9	5.8	0.1	0.8
Sep 05-09	3.3	4.1	-0.8	0.7

Undervaluation

Price/Earnings of 25.7 < sector avg of 28.3:

- The price-to-earnings ratio of 25.7 indicates undervaluation compared with sector average of 28.3.

Brand Value/Enterprise Value:

- Brandirectory have estimated Microsoft brand value at \$45.5 billion. The Brand Value represents 2.5% of the estimated Enterprise Value of \$1,819.6 billion. Enterprise Value is defined as MCap of \$1,860.6 billion plus net debt of \$-41 billion.

Other Bullish Signals

- Return on Equity of 43.7% versus sector average of 36.6% and market average of 17.9%.
- Total Liabilities/EBITDA of 2.4 is less than 5, this compares favourably with the Joseph Piotroski benchmark of 5.
- Return on Assets of 19.9% versus sector average of 17.4% and market average of 5.6%.
- Return on Capital Employed of 31% versus sector average of 26.9% and market average of 8.0%.
- Net profit margin has averaged 34.7% in the last 3 years. This is considered superior and suggests a high margin of safety.
- As per the Du Pont analysis, Return on Equity is high at 43.7%. This is computed as net profit margin of 36.7% times asset turnover [sales/assets] of 0.54 times leverage factor [total assets/shareholders' equity] of 2.2. Also, this has improved from 43.2% last year.

	ROE (%)	Profit Margin (%)	Asset Turnover	Leverage factor
Current Year	43.7	36.7	0.54	2.2
Previous Year	43.2	36.5	0.5	2.4

Ongoing Bullish Parameters

Fig 33: Growth in dividends per share and earnings per share

- Microsoft sees dividend rise for an eighteenth consecutive year

Microsoft reported dividends per share of \$2.54 in the past year, up 10.4% from the previous year. This is the eighteenth consecutive dividend increase. In the past 18 years average annual compound growth rate of dividends was 16.6%.

- EPS growth [FY2022 vs FY2021] of 19.5%:

FY	EPS (\$)	Growth %
2022	9.7	19.5
2021	8.12	39.5

Fig 34: Rule of 40

The stock scores a favorable score exceeding 40 when using the Rule of 40 (Revenue Growth plus EBITDA margin). Y.o.y revenue growth of 18%, EBITDA margin is 42.2% and the sum of the two 60.2% needs to exceed 40%.

Fig 35: Rank in the top 1% by Size in the NASDAQ market

Description	Value	Rank
Ave daily Turnover	\$4.5 billion	In Top 1%
Annual Revenue	\$198.3 billion	In Top 1%
MCap	\$1,861 billion	In Top 1%

Fig 36: Rank in the top 13% by Performance in the NASDAQ market

Description	Value	Rank
EBITDA Margin %	42.2	In Top 11%
Net Profit Margin %	36.7	In Top 13%

Fig 37: Rank in the top 7% by Productivity in the NASDAQ market

Description	Value	Rank
Return on Equity [ROE] %	43.7	In Top 3%
Return on Capital Employed [ROCE] %	31	In Top 7%
Return on Assets [ROA] %	19.9	In Top 7%

Fig 38: Present Value of \$1000 Invested in the Past 3 Years; The Best Period with PV\$1000 > 1,744

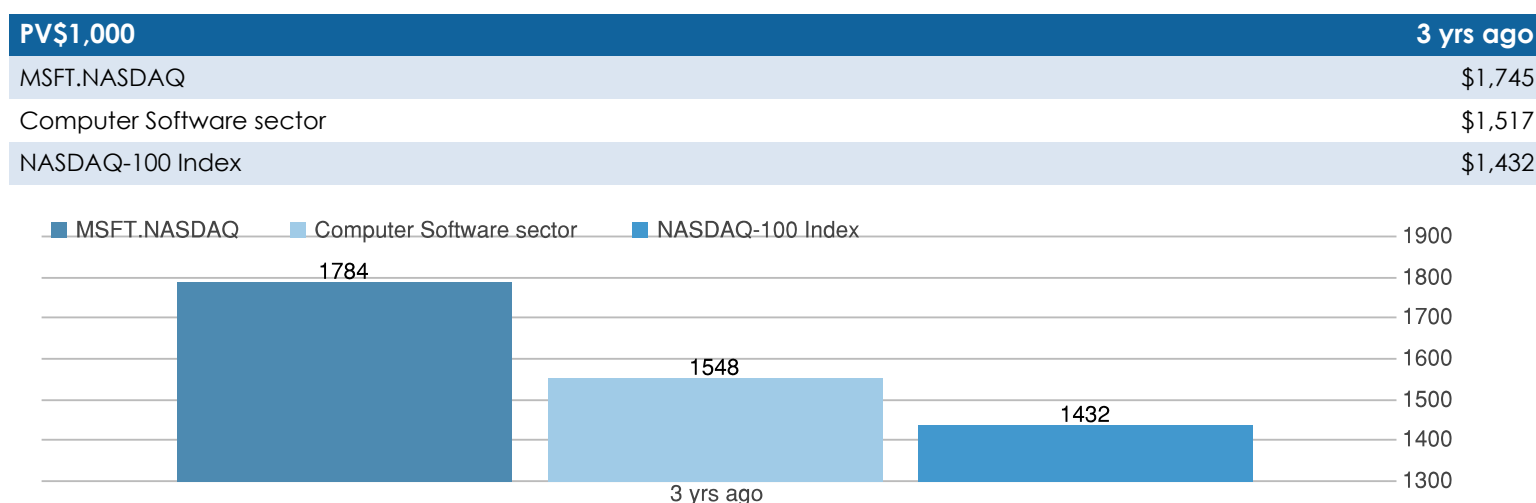


Fig 39: Past 3 years: price rise of 69.6%

3-Year price change of 69.6% for Microsoft outperformed the change of 43.1% in the NASDAQ-100 Index for a relative price change of 26.5%.

Price Change %	3 Years
Microsoft	69.6
Computer Software sector	51.7
NASDAQ-100 Index	43.1

Fig 40: Buybacks and 5-Years Decrease of 3.2% in Total Shares on Issue

In the past 5 years total shares on issue have decreased by 250 million (3.2%) from 7.7 billion to 7.5 billion. Buybacks have averaged 71.5 million shares [0.9%] per financial year. Based on a dynamic start date of 5 years ago, there has been no rise in issued capital over the last 5 years. A reduction in total shares on issue is a favourable indicator in Joseph Piotroski's 9 indicators.

Year End (Jun 30)	Total Shares on Issue	FY	Buybacks	Buyback %
2022	7,496,000,000	2022	51,000,000	0.7%
2021	7,547,000,000	2021	63,000,000	0.8%
2020	7,610,000,000	2020	63,000,000	0.8%
2019	7,673,000,000	2019	27,000,000	0.4%
2018	7,700,000,000	2018	46,000,000	0.6%
2017	7,746,000,000	2017	179,000,000	2.3%
Total			429,000,000	
Average per FY			71,500,000	

Fig 41: Created Market Value [CMV] past 10 yrs of \$1,546.7 billion

- Market Capitalization has increased by \$1,631.8 billion from \$228.8 billion to \$1,860.6 billion in the last 10 years. This increase comprises cumulative retained earnings (RETE) of \$85.1 billion and Created Market Value of \$1,546.7 billion. The Created Market Value multiple, defined by the change in MCap for every \$1 of retained earnings is exemplary at \$19.17.

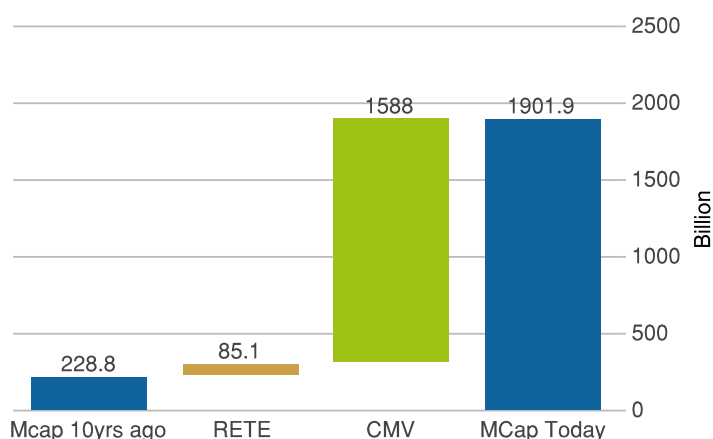


Fig 42: Microsoft sees dividend rise for an eighteenth consecutive year

Microsoft reported dividends per share of \$2.54 in the past year, up 10.4% from the previous year. This is the eighteenth consecutive dividend increase. In the past 18 years average annual compound growth rate of dividends was 16.6%.

Fig 43: Sequential growth in EPS [Q1/2023 vs Q4/2022] of 4.9%

The most recent quarter (Q1/2023) showed a rise of 4.9% in sequential growth of Quarterly EPS.

Quarterly Report	EPS (\$)	Growth %
Q1/2023	2.35	4.9
Q4/2022	2.24	0.4

Fig 44: Annualised Period-based Total Shareholder Returns [TSR %]: The Best Periods with TSR > 13.6%

TSR %	3 yrs	5 yrs	10 yrs	20 yrs	30 yrs
MSFT.NASDAQ	20.2	27.6	28.3	13.7	17.4

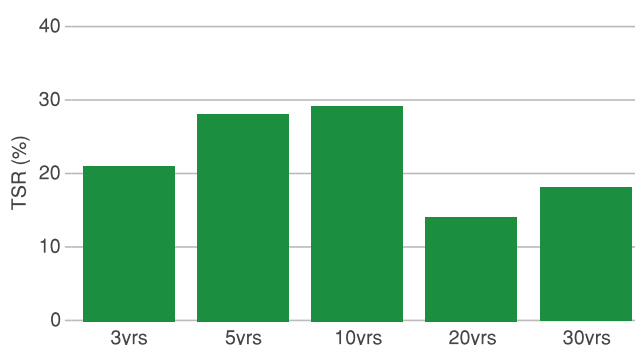


Fig 45: Low Debt to Equity (%) and Reducing

The debt to equity ratio of 29.9% is under a safe benchmark figure of 50%. Moreover, it has improved in the past four years.

Years	Debt to Equity (%)
Jun 2022	29.89
Jun 2021	40.95
Jun 2020	53.53
Jun 2019	70.53
Jun 2018	98.9

Quotes from Legends: Debt to Equity

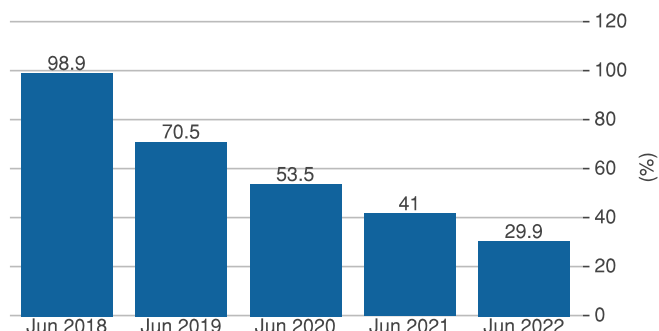


Fig 46: A 87.9% Decrease in Insider Selling

In the past 5 years a total of 4,398,473 Microsoft shares worth \$189.9 billion were sold by insiders. Based on a dynamic start date of 5 years ago, insider selling has averaged 879,695 shares per year. In the past year, insiders sold 174,791 shares, a decrease of 87.9% from the previous year.

Year	No. of Shares	Value, \$
Nov 30, 2022	174,791	46,962,746
1 Yr ago	1,440,966	447,884,526
2 Yrs ago	883,166	189,139,721,620
3 Yrs ago	949,590	118,700,799
4 Yrs ago	949,960	102,832,783
Total	4,398,473	189,856,102,474

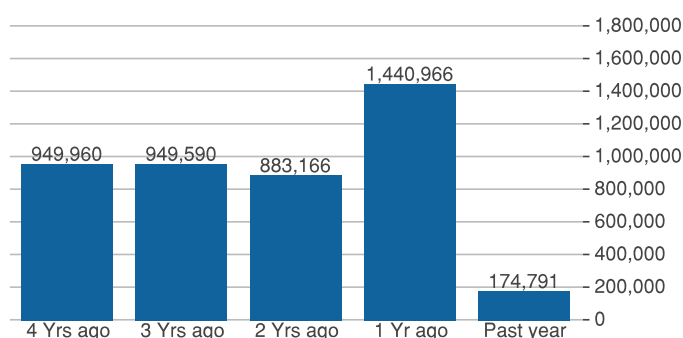


Fig 47: Increased Volume, up 8% in 5 years

In the past five years, Average Daily Volume of Trading (ADVT) has increased 8.2% to 31.3 million shares.

Avg. Daily Volume Traded 12 months ended Nov 30, million shares

Year	ADVT
2022	31.3
2021	25.8
2020	37.4
2019	26.5
2018	28.9

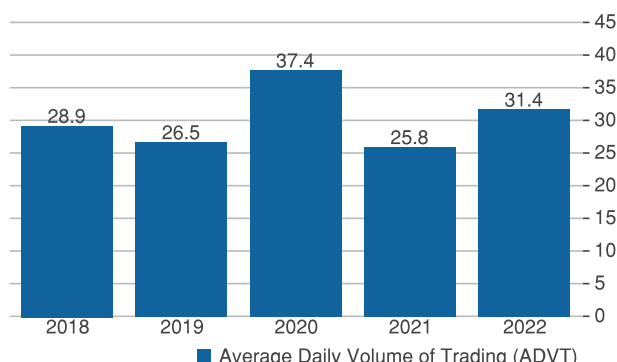


Fig 48: Increased VWAP, up 194% in 5 years

In the past five years Volume Weighted Average Price (VWAP) has increased by 194.0% to \$275.37. Based on a dynamic start date of five years ago, there has been no decline in VWAP over the last 5 years.

Past five years, 12 months ended Nov 30 (USD)

Year	High Price	VWAP	Low Price
2022	341.1	275.37	212.83
2021	346.42	258.02	205.45
2020	228.18	179.92	129.19
2019	148.26	119.13	90.02
2018	110.82	93.67	76.0

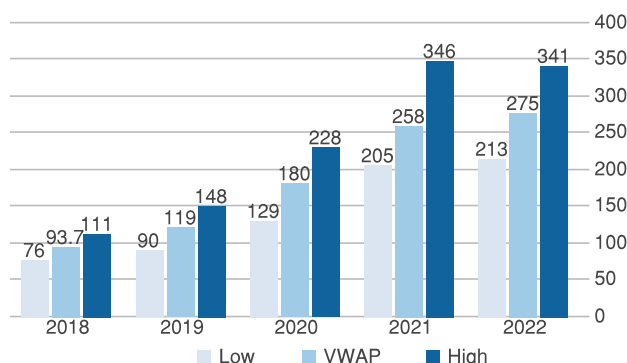


Fig 49: Increased share turnover, up 216% in 5 years

In the past five years, average daily share turnover has increased 215.7% to \$8.6 billion. This suggests increased liquidity.

Past five years, 12 months ended Nov 30 (USD billion)

Year	Average Daily Turnover
2022	8.6
2021	6.7
2020	6.8
2019	3.2
2018	2.7

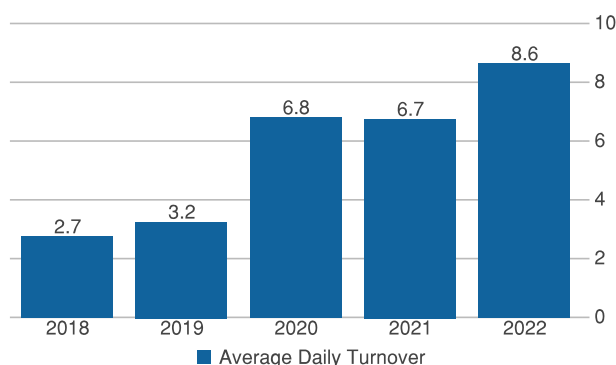


Fig 50: Quarterly Trend in Revenue, Net Profit and Net Profit Margin

- Net Profit margin is positive and has seen consecutive rises in recent quarters. [All figures in %]

Qtr-ended	Revenue Growth	Net Profit Growth	Net Profit Margin
Sep 22 [Q1 vs Q4]	-3.4	4.9	35
Jun 22 [Q4 vs Q3]	5.1	0.1	32.3

Fig 51: Satisfies two criteria of Benjamin Graham

- "Total debt less than tangible book value"; total debt of USD49.8 billion is less than tangible book value of USD74.6 billion. -"Total debt equal or less than twice the net quick liquidation value"; total debt of USD49.8 billion is 0.4 times the net liquidation value of USD119.9 billion. -"Earnings growth over the most recent ten years of 7% compounded - that is a doubling of earnings in a five-year period"; the earnings per share have more than doubled in the last 5 years.
- "Stability of growth in earnings over the last 5 years, defined as no more than two declines of 5% or greater in year-end earnings"; there has been only 1 decline in earnings in the last 5 years.

Fig 52: Satisfies 7 out of 9 criteria of Joseph Piotroski [pass mark 5]

- Positive net income.
- Positive operating cashflow.
- Return on Assets improvement [from 18.4% to 19.9%].
- Good quality of earnings [operating cashflow exceeds net income].
- Improvement in long-term debt to total assets from 0.2 to 0.1.
- Reduction in total shares on issue.

- Improvement in asset turnover [growth in revenue of 12.5% exceeded growth in assets of 9.3%].

But does not meet the following 2 criteria of Joseph Piotroski:

- Improvement in current ratio.
- Improvement in gross margin.

Fig 53: Year-over-year (%) Change in Dividend

Quarterly dividend for Q1/2023 was 68.0c, up 9.7% sequentially from 62.0c in Q4/2022. The year-on-year change was up 9.7% from 62.0c in the previous corresponding period Q1/2022.

Quarter	Q1/2022	Q4/2022	Q1/2023
Dividend (\$ Cents)	62.0	62.0	68.0

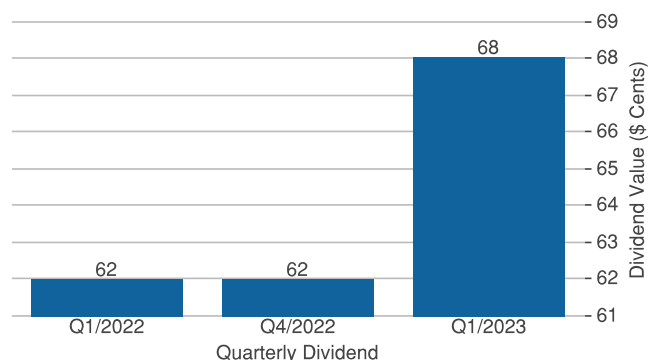


Fig 54: Rising Relative Strength

In the NASDAQ market, the stock's relative price strength percentile is rising at 49 for 6 months, 52 for 3 months and 80 for 30 days..

Quotes from Legends: Relative Strength

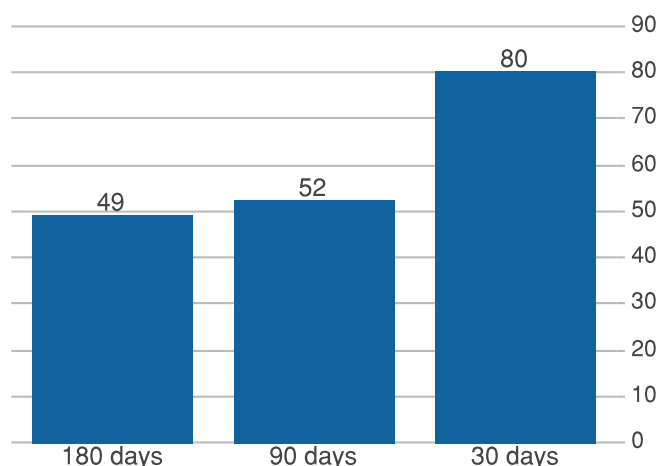


Fig 55: % Change (Tr. 12 Mo): Stock (-22.1%) v Index (-26.6%)

In the past 12 months Microsoft has outperformed the NASDAQ-100 Index by 4.5%.

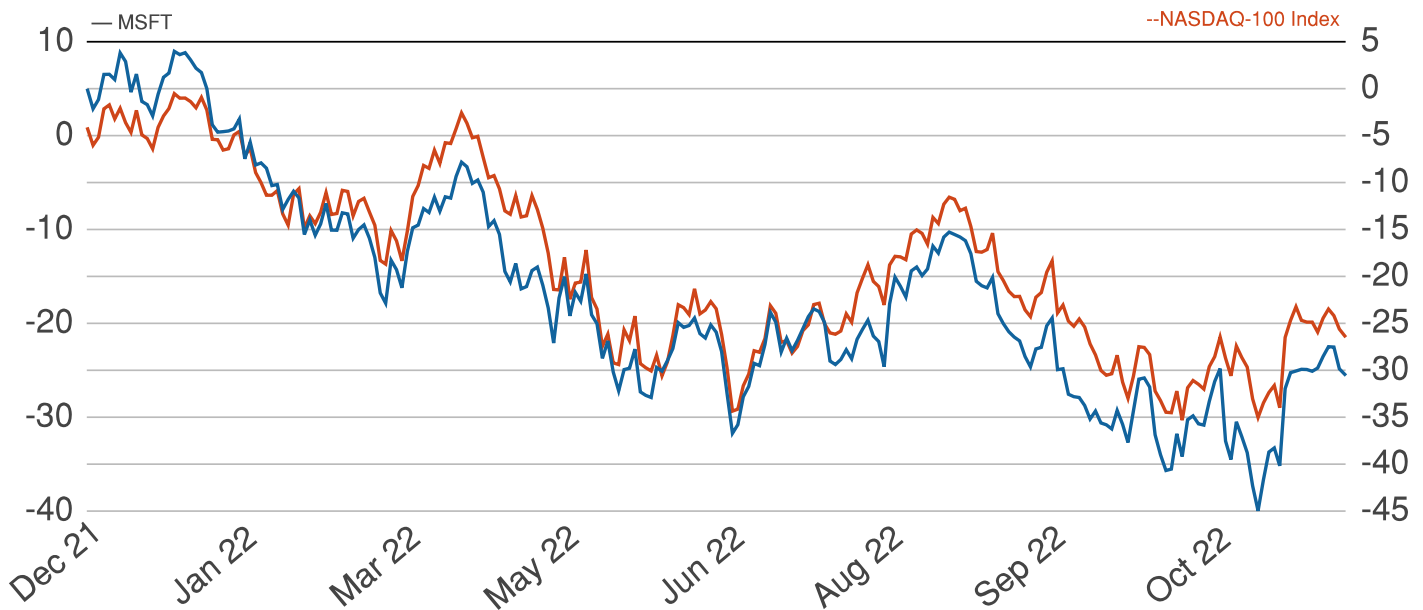


Fig 56: Past 12 Mo Stock Sector Index (%)

Microsoft Corporation has decreased \$72.38 (22.1%) in the past 12 months. Compared with the NASDAQ-100 Index which fell 4,369.18 points (26.6%), the past 12 months relative price change was 4.5%.

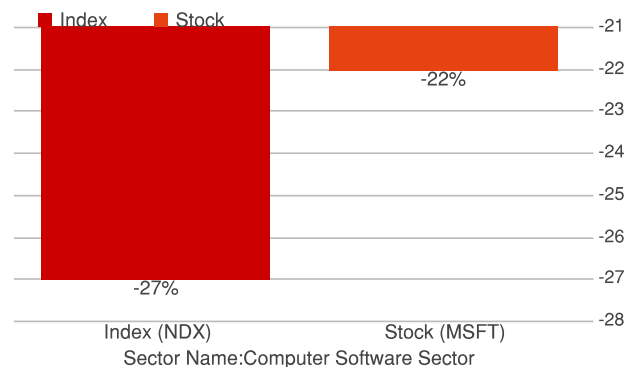


Fig 57: Growth in Quarterly Revenue & Net Income

Previous Corresponding Period (PCP) Quarterly Revenue up 10.6% from \$45,317 million in Q1/2021 to \$50,122 million in Q1/2022.

Previous Corresponding Period (PCP) Quarterly Net Profit down 14.4% from \$20,505 million in Q1/2021 to \$17,556 million in Q1/2022.

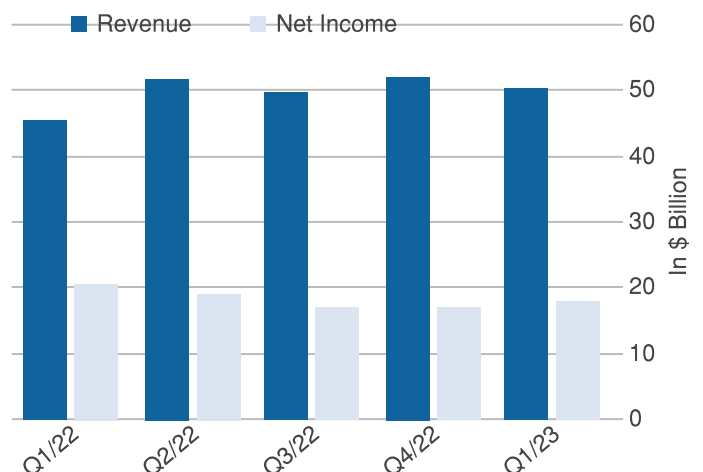


Fig 58: Turnover Period Above Average

1. Annual Share Turnover \$2,190 billion
2. MCap \$1,902 billion
3. Share Turnover Rate (1/2) =114.8%
4. Share Turnover Period (1/3) =10 months

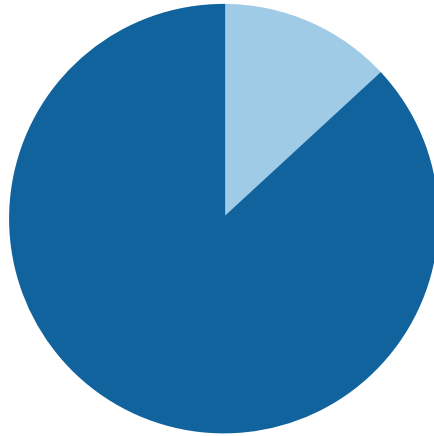


Fig 59: Rank in the NASDAQ-100 Index

Description	Value	Rank
Total Assets (\$ B)	364.8	2
Revenue (\$ B)	198.3	6
Net Profit (\$ B)	72.7	4
Return on Equity %	43.7	16
Net Profit Margin %	36.7	6
Price to Book	25.5	47
Price Earnings	26.3	36
Yield %	1.0	35

Corporate Profile and Independent Ratings

Fig 60: Activities

Microsoft Corporation develops, manufactures, licenses and supports a range of software products for computing devices. The Company's software products include operating systems for servers, personal computers and intelligent devices, server applications for distributed computing environments, information worker productivity applications, business solution applications, high-performance computing applications and software development tools and video games. It provides consulting and product support services, and trains and certifies computer system integrators and developers. Microsoft Corporation sells the Xbox 360 video game console and games, the Zune digital music and entertainment device, PC games, and peripherals. The Company has five segments: Client, Server and Tools, the Online Services Business, the Microsoft Business Division, and the Entertainment and Devices Division. It is the NASDAQ's largest Computer software company by market capitalisation.

Fig 61: Independent Ratings and Relative Value Indicators

Fortune 500:

Microsoft Corporation is a new entrant in the Fortune list of Top 500 Global companies by Revenues in 2022, ranked 14.
Attractive dividend yield compared to sector average
MSFT Dividend Yield of 1% > Sector Ave 0.5%
The dividend yield of 1% for the stock is at a discount of 48% to the Fortune 500 sector average of 0.5%.
P/E - MSFT 26 > Sector Ave 17
MSFT P/E of 26 is overvalued compared to the Fortune 500 sector average of 17.

Just Capital:

It was ranked 3 in the Just Capital annual list of top 100 ESG stocks for 2022; it was ranked 1 in the Software sector.
Attractive dividend yield compared to sector average
MSFT Dividend Yield of 1% > Sector Ave 0.5%
The dividend yield of 1% for the stock is at a discount of 50% to the Just Capital sector average of 0.5%.
P/E - MSFT 26 > Sector Ave 19
MSFT P/E of 26 is overvalued compared to the Just Capital sector average of 19.

Top 50 BCG:

It was ranked 4 in Boston Consulting Group's list of Top 50 Most Innovative Companies 2021; unchanged over a year from the same rank 4 in 2020.
Attractive dividend yield compared to sector average
MSFT Dividend Yield of 1% > Sector Ave 0.5%
The dividend yield of 1% for the stock is at a discount of 54% to the Top 50 BCG sector average of 0.5%.
P/E - MSFT 26 > Sector Ave 18
MSFT P/E of 26 is overvalued compared to the Top 50 BCG sector average of 18.

Good Jobs First:

It received aggregate subsidies of \$584.1 million from US federal, state and local awards in 2020. It was ranked 87 by aggregate subsidy values in the Good Jobs First list of Top 100 Parent companies in 2020.
Attractive dividend yield compared to sector average
MSFT Dividend Yield of 1% > Sector Ave 0.5%
The dividend yield of 1% for the stock is at a discount of 46% to the Good Jobs First sector average of 0.5%.
P/E - MSFT 26 > Sector Ave 14
MSFT P/E of 26 is overvalued compared to the Good Jobs First sector average of 14.

Carbon Disclosure Project (CDP):

It is one of 181 companies selected by the Carbon Disclosure Project (CDP) in their A List 2019. The CDP names the world's most pioneering companies leading on environmental transparency and performance.

Industryweek 1000:

It is a new entrant in the Industry Week list of the world's largest 1000 manufacturers by Revenues in 2016, ranked 32.

Newsweek 500:

It was ranked 47 by Newsweek and Corporate Knights Capital in the World's 500 Greenest Companies 2016. It had outstanding scores of 14.2% in Carbon productivity, 10.4% in Waste productivity and 8.4% in Water productivity.

Clarivate 100:

It is ranked in the Top 100 innovators by Clarivate Analytics.

PwC 100:

It was ranked 5 by MCap as at March 31, 2015 by PwC in the Top 100 Global companies; an improvement over 6 years from rank 6 as at March 31, 2009.

PwC Top100 Software Leaders:

It is the largest by revenue and 2nd largest by MCap among the PwC Global Software Leaders.

Fig 62: Independent Ratings of Directors

+ Reid Hoffman- Forbes Billionaires Ranking:

Reid Hoffman was ranked 1445 in the Forbes Billionaires list in the world for 2022, an improvement from rank 1580 in 2021. According to Forbes, Reid Hoffman's net worth had increased by (5.0%) \$100 million to \$2.1 billion in 2022.

+ Satya Nadella- Glassdoor Ranking:

Satya Nadella was ranked 6 in the Glassdoor Employee Review's list of 100 Top CEOs in the United States for 2021.

+ Satya Nadella- Harvard Business Ranking:

Satya Nadella was ranked 9 in the Harvard Business Review's list of 100 Best-Performing CEO's in the world for 2019.

Fig 63: Contact Details

Website	http://www.microsoft.com
Physical Address	One Microsoft Way,Redmond,WA,98052-6399
Phone	+1 425 882-8080
Fax	1-425-7067329
Email	msft@microsoft.com

Fig 64: U.S. Industry & Sector

Classification Level	Name of Sector
Business Sector	Software & IT Services
Industry Group	Software & IT Services
Industry	Software
Economic Sector	Technology

Fig 65: North American Industry Classification System [NAICS]

Code: 511210

Industry Title: Software Publishers

Financials FY 2022

Fig 66: Financials, FY 2022 [year-ended 30 June 2022]

Microsoft (NASDAQ:MSFT) announces EPS growth of 19%

Release Date: August 01, 2022

Microsoft (NASDAQ:MSFT), announced EPS of \$9.7 for the year-ended 30 June 2022 [FY2022], up 19% from \$8.12 in the previous year [FY2021]. Last year the company had reported EPS growth of 40% from \$5.82 in FY2020 to \$8.12 in FY2021.

Fig 67: Annual growth in Revenue, Net Profit and EPS

Year-ended	30 June [FY/2022]	30 June [FY/2021]
Revenue, \$ Billion	198	168
Growth in Revenue %	18.0	17.5
Net Profit, \$ Billion	72.7	61.3
Growth in Net Profit %	18.7	38.4
EPS, \$	9.7	8.12
Growth in EPS %	19.5	39.5

Major changes compared with previous year (FY2022 vs FY2021):

Favourable Changes:

- Net profit up 18.7% from \$61.3b to \$72.7b
- Total revenue up 18% from \$168.1b to \$198.3b
- EPS up 19.5% from \$8.12 to \$9.7
- EBIT Margin up from 100.0% to 115.1%
- EBIT to total assets up from 21.3% to 22.9%

Unfavourable Changes:

- Cost of Goods Sold to Sales up from 73.5% to 86.1%
- Sales and marketing expenses to Sales up from 28.3% to 30%
- Administration expenses to Sales up from 7.2% to 8.1%
- Current ratio down 14.4% from 2.1 to 1.8
- Working capital to total assets down from 28.7% to 20.4%

Fig 68: Year-on-year comparison of Performance Ratios [FY2022 vs FY2021]

June 30	FY2022	FY2021	Change (%)
Return on Equity (%)	43.7	43.2	Up 1.2
Return on Assets (%)	19.9	18.4	Up 8.2
Total debt to net tangible assets (%)	66.8	79.2	Down 15.7
Debt/Equity	0.3	0.4	Down 26.8
Common Size Ratios by Assets %			
Cash to Total Assets	24.9	34.8	Down 28.4
Current Debtors to Total Assets	12.1	11.4	Up 6.2
Long-term investments to Total Assets	1.9	1.8	Up 6.0

Five-year record of growth and performance:

In the last 5 years Total Revenue averaged \$149.1B, EBITDA averaged \$57.6B and Net Profit averaged \$46.8B. Compound Annual Growth Rate (CAGR) averaged 15.5% for Total Revenue, 23.3% for Net Profit and 22.9% for EBITDA.

Description	Annual (\$ B)	5-year Avg (\$ B)	5-year CAGR %
Total Revenue	198.3	149.1	15.5
EBITDA	83.7	57.6	22.9
Operating Profit	83.7	57.6	22.9
Net Profit	72.7	46.8	23.3

Five-year record of EBITDA, Operating Profit, Net Profit, ROE, ROA and ROCE

In 2022 Net Profit Margin of 100.0% was above its 5-year Avg of 30.1% (All Figures in %)

Description	2022	5-year Avg
EBITDA Margin	42.2	37.9
Operating Profit Margin	115.1	37.9
Net Profit Margin	100	30.1
Return on Equity	43.7	36.5
Return on Assets	19.9	14.6
Return on Capital Employed	31	24.3

Tax & Dividend

Fig 69: Average Income Tax Paid (Past 4 Years)

In the past 4 years, Income Tax as % of profit before tax increased from 10.2% to 13.1% and Income Tax as % of operating cash flow increased from 10.2% to 13.1%.

Description	2022	2021	2020	2019	4-yr avg
As % of profit before tax	13.1	13.8	16.5	10.2	13.4
As % of operating cash flow	13.1	13.8	16.5	10.2	13.4

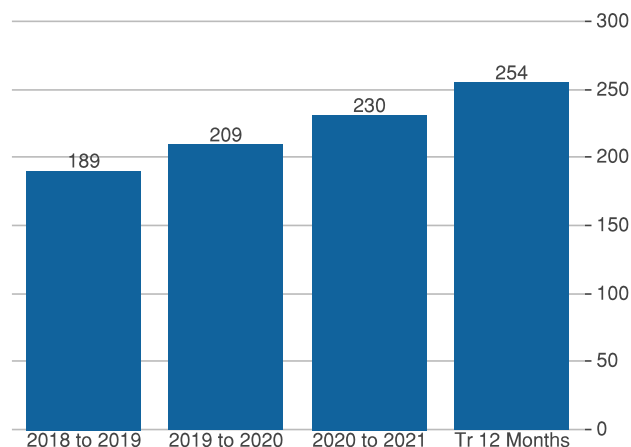
Fig 70: Dividend History

In the past 5 years annual dividends have increased by 82.0c from 172.0c to 254.0c. Based on a start date of 5 years ago, there has been no decline in dividends over the last 5 years.

Date	Value (c)	Type
16 Nov 2022	68	Quarterly
17 Aug 2022	62	Quarterly
18 May 2022	62	Quarterly
16 Feb 2022	62	Quarterly
Tr 12 Months	254	
2020 - 2021	230	
2019 - 2020	209	
2018 - 2019	189	
2017 - 2018	172	

Fig 71: Annual Dividends - Past 4 years (USD Cents)

Quotes from Legends: Dividends Trailing Twelve Months



Top Management

Fig 72: Top Management

Top Management [Six top executives with tenure > 7 yrs]

Name	Designation	Since Appointment
Satya Nadella	Chief Executive Officer, Chairman, Director	8 Yrs, 10 Mos
Bradford L. Smith	President, Vice Chairman	7 Yrs, 2 Mos
Amy Hood	Chief Financial Officer, Executive Vice President	
Judson Althoff	Executive Vice President, Chief Commercial Officer	
Kathleen Hogan	Executive Vice President, Chief Human Resources Officer	
Chris Capossela	Chief Marketing Officer, Executive Vice President, Marketing and Consumer Business	

Board of Directors

Fig 73: Board Of Directors

Board Of Directors [Eleven directors with tenure > 5 yrs]

Name	Designation	Since Appointment
Hugh Johnston	Director	5 Yrs, 2 Mos
Reid Hoffman	Director	5 Yrs, 8 Mos
Charles W. Scharf	Director	8 Yrs, 2 Mos
Emma Walmsley	Director	
Sandra E. Peterson	Director	
Padmasree Warrior	Director	
John W. Stanton	Director	
Penny Pritzker	Director	
Rodriguez Carlos A	Independent Director	
Teri L. List-Stoll	Independent Director	
John Wendell Thompson	Lead Independent Director	

Fig 74: Resignations in the past 2 years

Name	Designation	Date of Resignation
Charles H. Noski	Senior Vice President	04 December 2019
Helmut Panke	Director	04 December 2019

Insider Ownership and Transaction in the Past 10 Years

Fig 75: Shares Held by Insiders as on Nov 30, 2022 (Value computed at price \$249.60)

Name	Shares Held	Value, \$
Satya Nadella	799,152	199,468,339
Bradford L. Smith	641,946	160,229,722
Amy Hood	479,324	119,639,270
Kathleen Hogan	219,067	54,679,123
Judson Althoff	174,191	43,478,074
Chris Capossela	121,139	30,236,294
John W. Stanton	83,922	20,946,931
Charles W. Scharf	43,191	10,780,474
Emma Walmsley	18,317	4,571,923
Reid Hoffman	15,905	3,969,888
Padmasree Warrior	12,821	3,200,122
Penny Pritzker	12,000	2,995,200
Hugh Johnston	6,691	1,670,074
Sandra E. Peterson	5,400	1,347,840
Teri L. List-Stoll	2,092	522,163
Total	2,635,158	657,735,437

Satya Nadella now has a beneficial interest in 799,152 Microsoft shares worth \$199.5 million.

Bradford L. Smith now has a beneficial interest in 641,946 Microsoft shares worth \$160.2 million.

Amy Hood now has a beneficial interest in 479,324 Microsoft shares worth \$119.6 million.

Kathleen Hogan now has a beneficial interest in 219,067 Microsoft shares worth \$54.7 million.

Judson Althoff now has a beneficial interest in 174,191 Microsoft shares worth \$43.5 million.

Chris Capossela now has a beneficial interest in 121,139 Microsoft shares worth \$30.2 million.

John W. Stanton now has a beneficial interest in 83,922 Microsoft shares worth \$20.9 million.

Nature of Ownership	Shares Held	Value, \$
Equity-Non-Derivative Securities		
NA	76,679	19,139,078
By Family Trust	7,243	1,807,853
Total (Equity)	83,922	20,946,931

Charles W. Scharf now has a beneficial interest in 43,191 Microsoft shares worth \$10.8 million.

Nature of Ownership	Shares Held	Value, \$
Equity-Non-Derivative Securities		
NA	42,666	10,649,434
By Trust	525	131,040
Total (Equity)	43,191	10,780,474

Emma Walmsley now has a beneficial interest in 18,317 Microsoft shares worth \$4.6 million.

Nature of Ownership	Shares Held	Value, \$
Equity-Non-Derivative Securities		
NA	9,192	2,294,323
NA	9,125	2,277,600
Total (Equity)	18,317	4,571,923

Reid Hoffman now has a beneficial interest in 15,905 Microsoft shares worth \$4 million.

Padmasree Warrior now has a beneficial interest in 12,821 Microsoft shares worth \$3.2 million.

Penny Pritzker now has a beneficial interest in 12,000 Microsoft shares worth \$3 million.

Hugh Johnston now has a beneficial interest in 6,691 Microsoft shares worth \$1.7 million.

Nature of Ownership	Shares Held	Value, \$
Equity-Non-Derivative Securities		
NA	6,623	1,653,101
By trust	68	16,973
Total (Equity)	6,691	1,670,074

Sandra E. Peterson now has a beneficial interest in 5,400 Microsoft shares worth \$1.3 million.

Teri L. List-Stoll now has a beneficial interest in 2,092 Microsoft shares worth \$522,163.

Fig 76: Insider buying Summary in the past 12 months

Name	No. of Shares	Price, \$	Value, \$
Walmsley Emma N [Director]	3,300	303.3	1,000,761
Total	3,300	303.3	1,000,761

Fig 77: Walmsley Emma N [Director] Reported Buying In The Past 12 Months

Month	No. of Shares	Price, \$	Value, \$
Feb '22	3,300	303.26	1,000,761

Fig 78: Hood Amy [CFO] Reported Selling In The Past 12 Months

Month	No. of Shares	Price, \$	Value, \$
September 06, 2022	75,351	259.47	19,550,985

HOOD AMY [CFO] REPORTED INSIDER SELLING; 6 YEARS (2016 - 2021)

In the 6-year period 2016 to 2021 a total of 556,769 shares worth \$76.7 million were sold. In the past 6 years shares sold per year averaged 92,795.

Year	No. of Shares	Price, \$	Value, \$
2021	60,000	303.08	18,184,980
2020	80,000	218.14	17,451,200
2019	123,769	137.26	16,988,657
2018	118,000	110.9	13,086,766

2017	55,000	72.71	3,999,088
2016	120,000	57.86	6,943,740
Total	556,769	137.68	76,654,432

Fig 79: Nadella Satya [CEO] Reported Selling In The Past 12 Months

In the past year shares sold per month averaged 5,411.

Month	No. of Shares	Price, \$	Value, \$
September 02, 2022	56,999	257.71	14,689,028
March 02, 2022	7,931	296.52	2,351,736
Total: Nadella Satya	64,930	262.4	17,040,764

NADELLA SATYA [CEO] REPORTED INSIDER SELLING; 9 YEARS (2013 - 2021)

In the 9-year period 2013 to 2021 a total of 2,704,023 shares worth \$189.5 billion were sold. In the past 9 years shares sold per year averaged 300,447.

Year	No. of Shares	Price, \$	Value, \$
2021	1,192,851	313.28	373,698,623
2020	415,996	454,433.33	189,042,447,705
2019	382,637	114.4	43,774,037
2018	531,418	108.38	57,595,916
2017			
2016	143,000	57.97	8,289,524
2015			
2014			
2013	38,121	28.11	1,071,581
Total	2,704,023	70,090.7	189,526,877,386

Fig 80: Smith Bradford L [President] Reported Selling In The Past 12 Months

Month	No. of Shares	Price, \$	Value, \$
February 09, 2022	27,860	304.64	8,487,170

SMITH BRADFORD L [PRESIDENT] REPORTED INSIDER SELLING; 9 YEARS (2013 - 2021)

In the 9-year period 2013 to 2021 a total of 647,300 shares worth \$95.2 million were sold. In the past 9 years shares sold per year averaged 71,922.

Year	No. of Shares	Price, \$	Value, \$
2021	55,000	328.6	18,073,050
2020	200,000	222.58	44,515,472
2019	192,300	130.34	25,064,209
2018			
2017			
2016			
2015			
2014			
2013	200,000	37.97	7,594,000
Total	647,300	147.14	95,246,730

Fig 81: List Teri [Independent Director] Reported Selling In The Past 12 Months

Month	No. of Shares	Price, \$	Value, \$
December 08, 2021	1,650	334.9	552,578

Financials as Reported Q1 2022-23, Past 7 Years, NOTES

Fig 82: Financials as reported (Q1/2023)

SEC FILING 10-Q RESULTS OF OPERATIONS AND FINANCIAL CONDITION

(In \$ Million, except per share data and shares outstanding)

Fig 83: INCOME STATEMENT AS REPORTED (Q1/2023)

Description Sep 30	\$ Million 2022	\$ Million 2021	Change %
Revenue:			
Product	15,741	16,631	Down 5.4
Service and other	34,381	28,686	Up 19.9
Total revenue	50,122	45,317	Up 10.6
Cost of revenue:			
Product	4,302	3,792	Up 13.4
Service and other	11,150	9,854	Up 13.2
Total cost of revenue	15,452	13,646	Up 13.2
Gross margin	34,670	31,671	Up 9.5
Research and development	6,628	5,599	Up 18.4
Sales and marketing	5,126	4,547	Up 12.7
General and administrative	1,398	1,287	Up 8.6
Operating income	21,518	20,238	Up 6.3
Other income, net	54	286	Down 81.1
Income before income taxes	21,572	20,524	Up 5.1
Provision for income taxes	4,016	19	Up 21,036.8
Net income	17,556	20,505	Down 14.4
Earnings per share:			
Basic	\$2.35	\$2.73	Down 13.9
Diluted	\$2.35	\$2.71	Down 13.3
Weighted average shares outstanding:			
Basic	7,457,000,000	7,513,000,000	Down 0.7
Diluted	7,485,000,000	7,567,000,000	Down 1.1
Net income	17,556	20,505	Down 14.4
Other comprehensive income (loss), net of tax:			
Net change related to derivatives	7	2	Up 250.0
Net change related to investments	-1,897	-422	Deterioration 349.5
Translation adjustments and other	-775	-119	Deterioration 551.3

Other comprehensive loss	-2,665	-539	Deterioration 394.4
Comprehensive income	14,891	19,966	Down 25.4

Fig 84: BALANCE SHEET AS REPORTED (Q1/2023)

Description	\$ Million Sep 30, 2022	\$ Million Jun 30, 2022	Change %
Assets			
Current assets:			
Cash and cash equivalents	22,884	13,931	Up 64.3
Short-term investments	84,378	90,826	Down 7.1
Total cash, cash equivalents, and short-term investments	107,262	104,757	Up 2.4
Accounts receivable, net of allowance for doubtful accounts of \$438 and \$633	31,279	44,261	Down 29.3
Inventories	4,268	3,742	Up 14.1
Other current assets	18,003	16,924	Up 6.4
Total current assets	160,812	169,684	Down 5.2
Property and equipment, net of accumulated depreciation of \$60,638 and \$59,660	77,037	74,398	Up 3.5
Operating lease right-of-use assets	13,347	13,148	Up 1.5
Equity investments	6,839	6,891	Down 0.8
Goodwill	67,459	67,524	Down 0.1
Intangible assets, net	10,808	11,298	Down 4.3
Other long-term assets	23,482	21,897	Up 7.2
	198,972	195,156	Up 2.0
Total assets	359,784	364,840	Down 1.4
Liabilities and stockholders equity			
Current liabilities:			
Accounts payable	16,609	19,000	Down 12.6
Current portion of long-term debt	3,248	2,749	Up 18.2
Accrued compensation	7,405	10,661	Down 30.5
Short-term income taxes	6,729	4,067	Up 65.5
Short-term unearned revenue	41,340	45,538	Down 9.2
Other current liabilities	12,058	13,067	Down 7.7
Total current liabilities	87,389	95,082	Down 8.1
Long-term debt	45,374	47,032	Down 3.5
Long-term income taxes	23,712	26,069	Down 9.0
Long-term unearned revenue	2,549	2,870	Down 11.2
Deferred income taxes	223	230	Down 3.0
Operating lease liabilities	11,660	11,489	Up 1.5
Other long-term liabilities	15,311	15,526	Down 1.4
	98,829	103,216	Down 4.3
Total liabilities	186,218	198,298	Down 6.1
Commitments and contingencies			
Stockholders equity:			
Common stock and paid-in capital shares authorized 24,000; outstanding 7,457 and 7,464	88,535	86,939	Up 1.8

Retained earnings	92,374	84,281	Up 9.6
Accumulated other comprehensive loss	-7,343	-4,678	Deterioration 57.0
Total stockholders equity	173,566	166,542	Up 4.2
Total liabilities and stockholders equity	359,784	364,840	Down 1.4

Fig 85: CASH FLOW AS REPORTED (Q1/2023)

Description Sep 30	\$ Million 2022	\$ Million 2021	Change %
Operations			
Net income	17,556	20,505	Down 14.4
Adjustments to reconcile net income to net cash from operations:			
Depreciation, amortization, and other	2,790	3,212	Down 13.1
Stock-based compensation expense	2,192	1,702	Up 28.8
Net recognized gains on investments and derivatives	-22	-364	Improved 94.0
Deferred income taxes	-1,191	-5,970	Improved 80.1
Changes in operating assets and liabilities:			
Accounts receivable	11,729	10,486	Up 11.9
Inventories	-543	-777	Improved 30.1
Other current assets	-332	940	Deterioration
Other long-term assets	-666	-598	Deterioration 11.4
Accounts payable	-1,567	-471	Deterioration 232.7
Unearned revenue	-3,322	-2,885	Deterioration 15.1
Income taxes	410	2,653	Down 84.5
Other current liabilities	-4,024	-4,143	Improved 2.9
Other long-term liabilities	188	250	Down 24.8
Net cash from operations	23,198	24,540	Down 5.5
Financing			
Repayments of debt	-1,000	-4,826	Improved 79.3
Common stock issued	575	612	Down 6.0
Common stock repurchased	-5,573	-7,684	Improved 27.5
Common stock cash dividends paid	-4,621	-4,206	Deterioration 9.9
Other, net	-264	-172	Deterioration 53.5
Net cash used in financing	-10,883	-16,276	Improved 33.1
Investing			
Additions to property and equipment	-6,283	-5,810	Deterioration 8.1
Acquisition of companies, net of cash acquired, and purchases of intangible and other assets	-349	-1,206	Improved 71.1
Purchases of investments	-5,013	-10,309	Improved 51.4
Maturities of investments	6,662	8,862	Down 24.8
Sales of investments	2,711	5,630	Down 51.8
Other, net	-860	-417	Deterioration 106.2
Net cash used in investing	-3,132	-3,250	Improved 3.6
Effect of foreign exchange rates on cash and cash equivalents	-230	-73	Deterioration 215.1
Net change in cash and cash equivalents	8,953	4,941	Up 81.2
Cash and cash equivalents, beginning of period	13,931	14,224	Down 2.1
Cash and cash equivalents, end of period	22,884	19,165	Up 19.4

Fig 86: Download MICROSOFT Financials Past 7 Years

Description (June 30)	2022	2021	2020	2019	2018	2017	2016
Income Statement							
Revenue per share	26.3	22.09	18.61	16.23	14.16	12.33	10.65
Other Revenue	125.5 B	97 B	75 B	59.8 B	110.4 B		
EBITDA (B)							
Depreciation (B)							
Tax (B)	11	9.8	8.8	4.4	19.9	4.4	3
Net profit (B)	72.7	61.3	44.3	39.2	16.6	25.5	16.8
EPS	9.7	8.12	5.82	5.11	2.15	3.29	2.12
Balance Sheet							
Equity Share Capital (B)	166.5	142	118.3	102.3	82.7	87.7	72
Retained Earnings (B)	84.3	57.1	34.6	24.1	11.5	18.4	2.3
Total Debt (B)	49.8	58.1	63.3	72.2	81.8	91.6	53.5
Total Assets (B)	364.8	333.8	301.3	286.6	258.8	250.3	193.5
Current Asset (B)	169.7	184.4	181.9	175.6	169.7	162.7	139.7
Fixed Asset (B)	74.4	59.7	44.2	36.5	29.5	23.7	18.4
Working Capital (B)	74.6	95.7	109.6	106.1	111.2	107	80.3
Cash Flow							
Operating Cash Flow (B)	89	76.7	60.7	52.2	43.9	39.5	33.3
Investing Cash Flow (B)	(30.3)	(27.6)	(12.2)	(15.8)	(6.1)	(46.8)	(23.9)
Financing Cash Flow (B)	(58.9)	(48.5)	(46)	(36.9)	(33.6)	8.4	(8.4)
Net Cash Flow	(152 M)	677 M	2.4 B	(475 M)	4.2 B	1.1 B	982 M

Peer Comparison & Ranking of MSFT

Fig 87: PEER COMPARISON: MSFT IN INDICES

Microsoft is a constituent of the following indices.

Its market capitalisation is \$1,861 billion and accounts for 15.6% of the combined MCap of The NASDAQ-100 Equal Weighted Index.

Index Name	MCap of Index (\$ b)	MSFT MCap as % of Index
The NASDAQ-100 Equal Weighted Index	11,935	15.6
NASDAQ-100 Index	13,517	13.8
NASDAQ Global Select Market Composite Index	14,848	12.5
NASDAQ Composite Index	15,379	12.1

Fig 88: GLOBAL PEER COMPARISON: MSFT - SIZE (all figures in \$)

In its Global Peer Group of 9 companies MSFT is ranked MSFT is ranked first (1) by MCap, second (2) by Total Assets, third (3) by Net Profit and fourth (4) by Revenue.

Name (Code)	MCap	Revenue	Net Profit	Total Assets
Rank of MSFT	1	4	3	2
Microsoft (MSFT)	1,860.6B	198.3B	72.7B	364.8B
Amazon (AMZN)	964.8B	469.8B	33.4B	420.5B
Alphabet Class C (GOOG)	624.1B	257.6B	76B	359.3B
Alphabet Class A (GOOGL)	592.9B	257.6B	76B	359.3B
Tencent (00700)	352.3B	66.9B	22.2B	184.9B
Alibaba Group (09988)	221.9B	71B	20.8B	183B
Adobe (ADBE)	158.2B	15.8B	4.8B	27.2B
Salesforce (CRM)	156.5B	26.5B	1.4B	95.2B
TCS (TCS)	152.1B	24B	4.7B	17.3B

GLOBAL PEER COMPARISON: MSFT - RELATIVE VALUE INDICATORS

In value terms, comparing relative value of its shares, MSFT is ranked

- + 4 out of 9 by Price/Earnings per share [24.8]
- + 6 out of 9 by Price/Sales per share [9.0]
- + 6 out of 9 by Price/Book value per share [24.0]

Name (Code)	Currency Code	Last Price	P/E	P/S	P/Book
Rank of MSFT by value			4	6	6
Microsoft (MSFT)	USD	249.6	24.8	9.0	24.0
Amazon (AMZN)	USD	94.6	28.0	2.0	7.7
Alphabet Class C (GOOG)	USD	99.6	16.8	2.3	2.6
Alphabet Class A (GOOGL)	USD	99.3	16.7	2.2	2.5
Tencent (00700)	HKD	287.2	15.7		4.3
Alibaba Group (09988)	HKD	79.9			
Adobe (ADBE)	USD	340.2	32.4	9.6	
Salesforce (CRM)	USD	156.5		5.2	
TCS (TCS)	INR	3,390.8	32.7	6.3	15.3

USD 1=

Fig 89: 7.812 Hong Kong Dollar (HKD); 81.613 Indian Rupees (INR)Global Peer Group - Price Performance

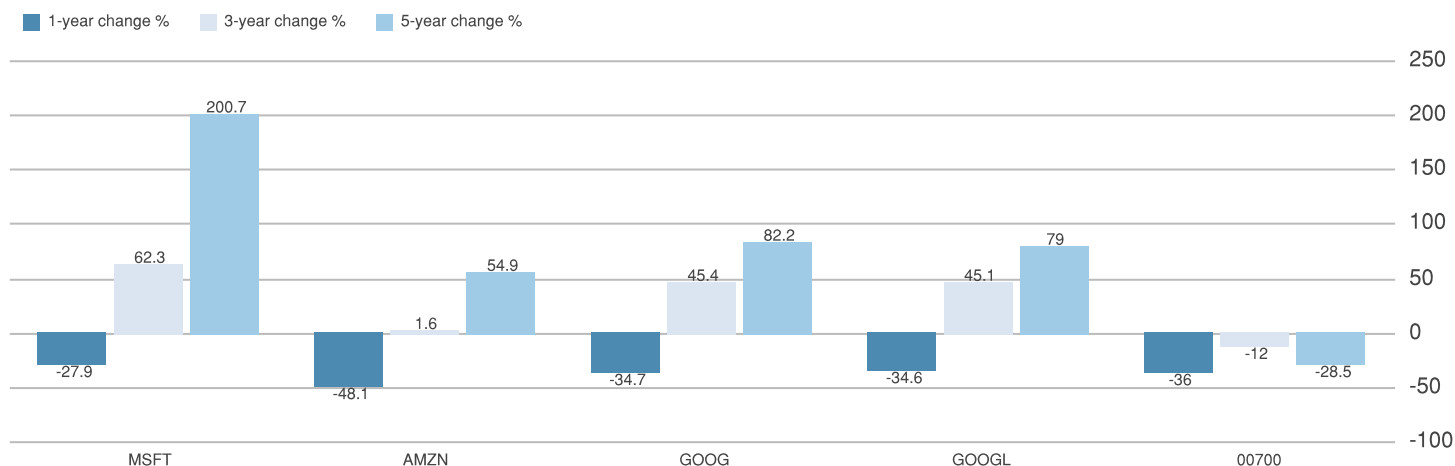


Fig 90: Global Peer Group - Total Shareholder Returns [TSR in \$]

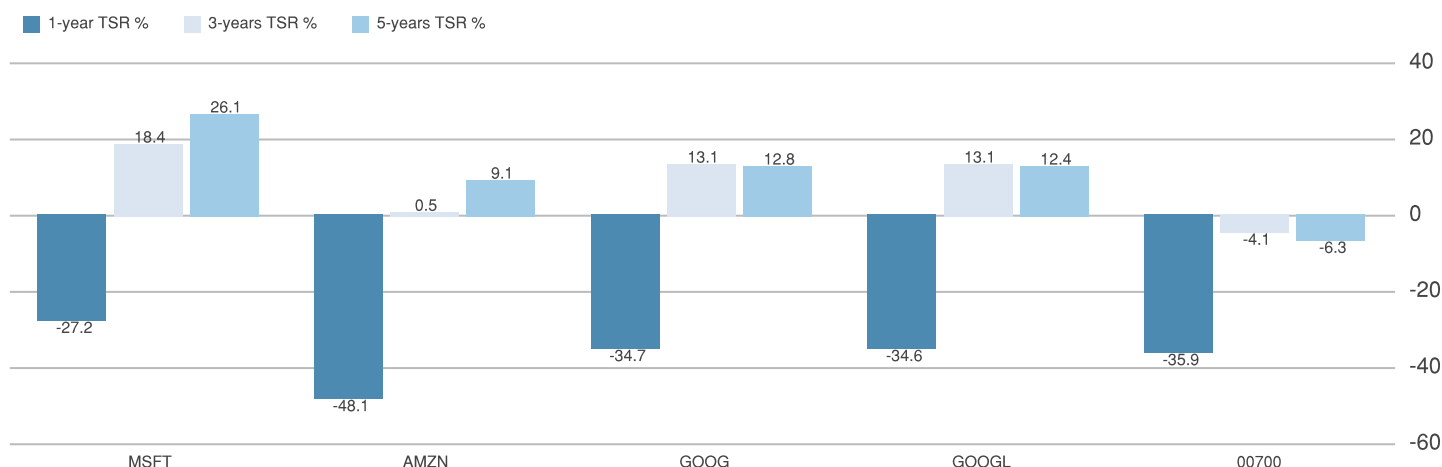


Fig 91: BUYSSELLSIGNALS FUNDAMENTALS VALUATION RANKING

Microsoft vs NASDAQ Market

Out of 3,296 stocks and 4 units in the NASDAQ Market, Microsoft is ranked first(1) by Free Cash Flow, fourth(4) by Net Profit \$, fourth(4) by Total Assets and sixth(6) by Revenue.

	NASDAQ Avg	MSFT	MSFT Rank
Free Cash Flow	(235.3 M)	25 B	1
Net Profit \$		72.7 B	4
Total Assets \$		364.8 B	4
Revenue \$		198.3 B	6
EBITDA Margin%	18.1	42.2	98
ROA (%)	5.6	19.9	107
P/Earnings	23.4x	25.7x	201
Price/Net Tangible Assets	9.1x	24.9x	281
P/Sales	3.04x	9.4x	315
P/Earnings/ Growth	0.3x	1.3x	419
Yield (%)	0.9	1.02	610
Premium to 52-Wk Low (%)	12.5	17.3	889
Total Debt/Equity (the lower the better)	0.6x	0.3x	1304
Discount to 52-Wk High (%)	28.2	26.8	1444

Negative values are shown in brackets.

Fig 92: Stock in Index and Stock in Sector

Description	MSFT	NASDAQ Composite Index	% of NASDAQ Composite Index	Computer software sector	% of Computer software sector
Net Profit \$	72.7 B	781.2 B	9.3	83.4 B	87.2
Revenue \$	198.3 B	4,678.1 B	4.2	254.9 B	77.8
Total Assets \$	364.8 B	10,243 B	3.6	481 B	75.8
MCap \$	1,860.6 B	15,379 B	12.1	2,385.5 B	78.0

Fig 93: Relative Valuation Indicators: Stock vs Index and Stock vs Sector

Description	MSFT	NASDAQ Composite Index Avg.	Computer software sector Avg.
Price/Earnings	25.7	20.1	28.3
P/Earnings/Growth	1.32	0.34	1.91
Yield (%)	1.02	0.94	0.85
Price/Net Tangible Assets	24.95	11.43	35.45
Total Debt/Equity (the lower the better)	0.3x	0.53x	0.32x

Fig 94: MARKET SHARE

Microsoft has a position of market dominance in the Computer Software sector.
Microsoft vs Computer Software sector [Computer Software sector Total in Brackets]
Revenue of \$198.3 billion [78.0% of aggregate sector revenue of \$254.9 billion; down from 78.2% in the previous year.]
Net Profit of \$72.7 billion [87.2% of aggregate sector net profit of \$83.4 billion; up from 84.0% in the previous year.]
EBIT of \$83.7 billion [87.0% of aggregate sector EBIT of \$96.2 billion; up from 86.7% in the previous year.]

Fig 95: GLOBAL RANK [out of 47,500 stocks] AND RANK OF MICROSOFT IN THE AMERICAN REGION [out of 10,726 stocks]

Description	Value	Global Rank	In Am Region
Total Assets (\$)	364.8B	183	76
Revenue (\$)	198.3B	41	15
Net Profit (\$)	72.7B	11	6
Return on Equity %	43.7	1,024	356
Net Profit Margin %	36.7	3,328	796
Price to Book	24.2	34,815	6,102
Price/Earnings	24.9	16,830	2,671
Yield %	1.1	18,538	3,275
PV1000 (1Year) \$	769	25,674	4,854
\$ Change (1Year) %	-26.0	25,303	4,771

Fig 96: RANK OF MICROSOFT IN THE NASDAQ-100 INDEX [out of 95 stocks], IN THE NASDAQ MARKET [out of 3431 stocks] AND IN THE COMPUTER SOFTWARE SECTOR [out of 26 stocks]

Description	Value	In NASDAQ-100 Index	In NASDAQ Market	In Computer software sector
Total Assets (\$)	364.8B	2	3	1
Revenue (\$)	198.3B	6	6	1
Net Profit (\$)	72.7B	4	4	1
Return on Equity %	43.7	16	101	3
Net Profit Margin %	36.7	6	122	2
Price to Book	24.9	44	2,286	14
Price/Earnings	25.7	36	943	3
Yield %	1.0	34	640	5
PV1000 (1Year) \$	769	55	503	11

Patents

[Patents past 5 years in xls](#)

Fig 97: Number of Patents Issued to Microsoft by the US Patent Office and the European Patent Office

A total of 15,081 patents were issued to Microsoft in the last eight years. In the past year 2,125 patents were issued, 1.1 times average of 1,885 patents per year.

12 months ended Nov 30	No. of Patents Issued
2022	2,125
2021	2,525
2020	3,125
2019	3,073
2018	2,414
2017	819
2016	20
2015	980
Total	15,081

Fig 98: Rank by patents issued in the past 12 months: Microsoft vs NASDAQ stocks

Microsoft's ranked 1 by US Patents issued in the past year out of 3,803 NASDAQ listed companies. A total of 20,544 US patents were issued to NASDAQ listed companies in the past year, an average of 5.4 patents per company. Microsoft received 1,438 US Patents in the past 12 months, 266 times average.

Stock Identifiers

ISIN: US5949181045
PermID: 4295907168
Central Index Key (CIK): 789019
CUSIP: 594918104
RIC: MSFT.O

INDEX (Click tab for direct access)

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Glossary

Annual Return (Fig 25):

Dividends Paid In a 12-Month Period/Price at the Beginning of the Period + Capital Gain or Loss over 1 Year/Price 1 Year Ago (%)

Current Ratio:

Current Assets/Current Liabilities (times)

Debt/Equity (Fig 45):

Net Debt/Net Assets %

Dividend Yield (Fig 21):

Dividend Per Share/Share Price (%)

Earnings Yield:

Earnings Per Share/Share Price (%)

Income during the n years (3/2/1) (Fig 70):

Dividends received during the Period

PCP (Fig 6, 27):

Previous Corresponding Period

PV\$1000 (Fig 95, 96, 23, 29, 38, 59):

Present value of \$1000 invested 1 year/'n' years ago

Price/Earnings (Fig 21, 93, 95, 96, 91, 29, 59):

Share Price/Earnings Per Share (times)

Price/NTA (Fig 21, 29, 59, 95, 96):

Closing Share Price/Net Tangible Assets Per Share (times)

Price/Sales (Fig 91):

Share Price/Sales Per Share (times)

Relative Price Change [RPC]:

Relative price change is price change of stock with respect to Benchmark Index

Relative Strength (n-th Period) (Fig 54):

Price close today/Price close 'n' periods ago, then ranked by percentile within the entire market.

Return on Assets (Fig 37, 68):

Net Profit/Total Assets (%)

Return on Equity (Shareholders' Funds) (Fig 29, 37, 59, 68, 95, 96):

Net Profit/Net Assets (%)

TSR (Fig 26, 44):

Total Shareholder Returns is expressed as an annualized rate of return for shareholders after allowing for capital appreciation and dividend

TTM (Fig 20):

Trailing 12 Months

Turnover Period (Fig 58):

Time Period required for trading all Outstanding Shares

Turnover Rate (Fig 58):

US Dollars value of annual trading volume as a percentage of market capitalisation

Volatility (Fig 20):

Highest Price minus Lowest Price/Lowest Price (%)

Volume Weighted Average Price (VWAP) (Fig 48):

The Volume Weighted Average Price (VWAP) is the summation of turnover divided by total volume in the same period.

Momentum Up



Price increase fuelled by above average Volume

Weak Momentum Up



Price increase on below average Volume

Momentum Down



Price decrease fuelled by above average Volume

Weak Momentum Down



Price decrease on below average Volume

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