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# Microsoft Corp MSFT ★★★ Feb 07, 2020

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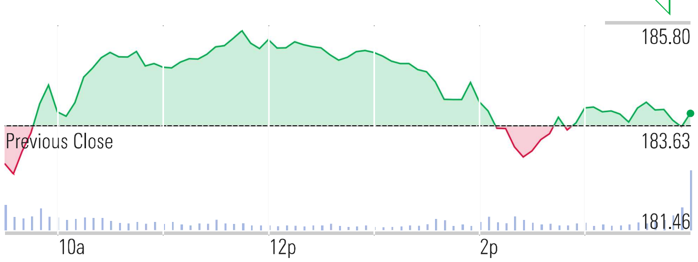
Market Closed




USD | NASDAQ | Last close prices updated as of Feb 07, 2020, 4:30 PM EST | BATS BZX Real-Time Price

Quote | Key Ratios | Short Interest

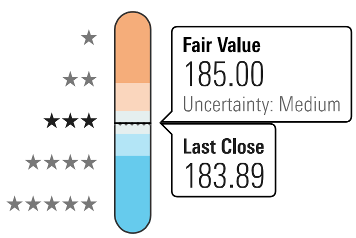
| Bid/Size | Ask/Size | Day Range | Volume / Avg |
|---|---|---|---|
| 183.63×9 | 183.75×2 | 182.48 – 185.63 | 33.5 Mil / 23.1 Mil |
| **Year Range** | **Forward Div Yield** | **Market Cap** | **Investment Style** |
| 104.26 – 185.63 | 1.11% | 1.3987 Tril | Large Growth |
| **Price/Sales** | **Beta (5-Year)** | **Consensus Forward P/E** | **Price/Book** |
| 10.57 | 1.17 | 32.05 | 12.70 |

## Morningstar's Analysis

Summary | Competitors | Bulls Say/Bears Say

**Valuation** Jan 30, 2020 Currency in USD

MSFT is trading within a range we consider fairly valued.




**1-Star Price**
> 249.75

**Economic Moat**
Wide
Trend: Stable

**5-Star Price**
< 129.50

**Stewardship**
Exemplary

## Azure Accelerates; Microsoft Crushes Quarter and Provides Favorable Outlook; Raise FVE to $185

**Dan Romanoff**
Analyst

**Analyst Note** | by Dan Romanoff Updated Jan 30, 2020

Microsoft continued its string of impressive quarters, with meaningful upside to revenue, operating margin, and EPS. Demand was broad based across segments and geographies. We remain impressed with Microsoft's ability to drive revenue and margins at this scale and we continue to believe there is more to come on both the revenue and margin fronts. Results continue to underscore our thesis, which centers on customer adoption of hybrid cloud environments with Azure. Microsoft continues to use its dominant position of on-premises architecture to allow customers to move to the cloud easily and at their own pace, which we believe will continue over the next five years. Adoption of IaaS, PaaS, and SaaS cloud services remains robust and continues to outperform our expectations from both a revenue and margin perspective. As such, we bumped our growth and margin assumptions up throughout our model and as a result, are raising our fair value estimate to $185 from $155. We believe Microsoft is firing on all cylinders and see further upside to shares if the company can continue to deliver results like those reported for the second quarter.

For the December quarter, revenue grew 14% year over year to $36.9 billion, while GAAP EPS was $1.51 compared with $1.08 a year ago. Both measures were ahead of our in-line estimates of $35.7 billion and $1.31, respectively. All three segments wer
cloud continues to drive the story, with Azure accelerating sequentially to 62% year over year growth--a positive surprise for the most crucial element of the company's growth. On-premises

server units remain strong and continue to benefit from strong upgrades ahead of product sunsetting, which we do not see as sustainable. Operating margin was 37.6%, up 600 basis points year over year driven largely by rapidly improving gross margin in commercial cloud. Upside to revenues, better gross margins, and controlled operating expenses resulted in significant EPS upside.

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**Business Strategy and Outlook** | by Dan Romanoff Updated Jan 3

Since taking over as CEO in 2014, Satya Nadella has reinvente
our view, Microsoft has become one of two public cloud provic
of PaaS/IaaS solutions at scale. Additionally, Microsoft has acc
traditional perpetual license model to a subscription model. Th
open-source movement. Finally, Microsoft exited the low-grow
business and is driving Gaming to be more cloud-based. These factors have combined to drive a more focused company that offers impressive revenue growth with high and expanding margins.

We believe that Azure is the centerpiece of the new Microsoft. Even though we estimate it is already an approximately $7 billion business, it grew at a staggering 92% rate in fiscal 2018. Azure has several distinct advantages, including that it offers customers a painless way to experiment and move select workloads to the cloud. Since existing customers remain in the same Microsoft environment, applications and data are easily moved from on-premises to the cloud. Microsoft can also leverage its massive installed base of all Microsoft solutions as a touch point for an Azure move. Azure also is an excellent launching point for secular trends in AI, business intelligence and Internet of Things, as it continues to launch new services centered around these broad themes.

Microsoft is also shifting its traditional on-premises products to become cloud-based SaaS solutions. Critical applications include LinkedIn, Office 365, and Dynamics 365. Like any transition, the initial move is painful, as both revenues and margins drop. However, Microsoft is now on the back end of that where revenues have accelerated and are more predictable, and margins are increasing. Office 365 retains its virtual monopoly in office productivity software, which we do not expect to change in the foreseeable future. We believe that customers will continue to drive the transition from on-premises to cloud solutions, and revenue growth will remain robust with margins continuing to improve for the next several years.

**Economic Moat** | by Dan Romanoff Updated Jan 30, 2020

For Microsoft overall we assign a wide moat rating arising from switching costs, network effects, and cost advantages. We believe that Microsoft's different segments and products benefit from different moat sources.

Microsoft's Productivity and Business Processes segment includes Office, Dynamics, and LinkedIn. We assign the segment a wide moat rating based on high switching costs and network effects.

We believe that Microsoft Office, including both 365 and the perpetual license version, is protected by a wide moat driven by high switching costs and network effects. Office 365 is the cloud-based version of the traditional perpetual license Microsoft Office productivity suite. Office 365 is available for a monthly subscription. Together, the two products account for approximately 26% of revenue and are growing in the low double-digit area. Office 365 represents more than half of Office revenue. We expect perpetual license sales of Office to continue to decline in terms of both absolute dollars and as a percent of revenue, with growth in Office 365 more than offsetting the declines.

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An office productivity suite generally consists of spreadsheet (Excel), word processing (Word), and presentation (PowerPoint) software applications. Other applications can also be bundled in. Microsoft offers a variety of versions of the Office 365 suite, and increasingly fewer perpetual license versions. Office 365 starts at approximately $6 per month and tops out at approximately $35 per user per month. Lower-cost and even free versions are education vertical more generally. The perpetual license versio more than 165 million subscribers.

While Office 365 and is ubiquitous among white collar worker productivity suites available. Many of these are available for fr Apache OpenOffice.

Microsoft eventually came to completely own this market but 1-2-3 and WordPerfect dominated office productivity throughout the 1980s and remained popular even into the 1990s. We believe Microsoft continues to enjoy a dominant market share position in Office Suites, with Google being the only other vendor of consequence. Given that so many users are willing to pay a minimum of $70 per year to use Office 365 when free versions that are generally similar in terms of features and interface are available, we are impressed with the company's pricing power and believe it supports our wide moat stance.

Microsoft Office also benefits from high switching costs. Because of the significant installed base, and the fact that critical business processes are often centered around Microsoft Excel, we believe it would be highly disruptive for a company to pivot to an office suite other than Office 365. Broadly speaking, critical reports within the financial function of countless enterprise users are pulled from an Oracle, SQL, or other popular database into an Excel file that can then be manipulated and analyzed further.

Lastly, Office 365's moat is supported by a network effect. A large installed base draws in software developers to create products specifically for Microsoft Office. For example, in the financial community, a wide variety of add-ins for Excel designed to smoothly integrate popular platforms such as Factset, Bloomberg, and CapitalIQ have been created.

Microsoft Dynamics, including both Dynamics 365 and traditional license versions, has a narrow moat, in our view, that is supported primarily by high switching costs. Dynamics is an enterprise resource planning (ERP) suite of applications designed to help mid-sized companies, or divisions of larger companies, run their businesses. We estimate Dynamics accounts for approximately 2% of total revenue and is growing in the low double-digit area. The Dynamics revenue base is shifting from a perpetual license and maintenance model into a subscription model (Dynamics 365). Microsoft has invested considerable resources in these applications, which now benefit from being re-architected and modular, creating a strong value proposition for customers. As such, Dynamics has increased its profile and is slowly gaining share market share. Dynamics 365 is a leading cloud-based CRM and ERP package that generally competes with Salesforce.com, Oracle (standalone), Netsuite (owned by Oracle), Workday, and SAP, among others.

An ERP system and its core modules represent the core systems of the company. These software suites represent a significant financial commitment, a steep learning curve, and a long lead-time for implementing and testing the system. Because of these investments, an ERP system has traditionally been considered a minimum 10-15 year investment. There is also substantial risk in changing from one ERP vendor to another--and enterprise customers are risk averse by their nature. The sales process alone is a one-year, if not two-year process, with implementation times running at 1-2 years as well. Modern architectures skew toward the shorter end of the range, while legacy systems skew longer.

We believe LinkedIn's narrow moat is supported by network effects. Hailed as a professional networking tool, LinkedIn is at its core a free-to-use networking application similar to Facebook. LinkedIn represents mid-single digits as a percent of revenue, and is growing by more than 30%. We believe LinkedIn is the premier tool for professional networking. The company boasts more than 600 million registered users, but no longer reports the mo users, or MAU, which we estimate to be approximately 145 mi the acquisition, LinkedIn had 433 million members and 105 mil Europe, the only larger network of its kind is Facebook (2.3 bill toward social networking. Twitter serves a different purpose, b MAU.

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LinkedIn ultimately provides a large database of professionals comb for talent, the tools to make that process easy, and a pla professional networking, we believe that no comparable platform exists. Engagement among users remains high even as new members continue to join. The large user base attracts more users, recruiters, advertisers, which in-turn, attracts more users still. We do not see a disruptive network or software tool threatening LinkedIn over the next several years.

Microsoft's Intelligent Cloud segment includes Windows Server, SQL Data Base Management System, Azure, Enterprise Services and Visual Studio. We assign the segment a wide moat rating based on high switching costs, network effects, and cost advantages.

Windows Server is protected by a wide moat driven by high switching costs and network effects. Microsoft was the clear winner in the move from mainframe computing to client-server architecture. The PC boom helped fuel the server boom beginning in the 1980s and gaining steam in the 1990s. Much cheaper Windows-based servers were severely disruptive to the mainframe server market. Mainframes and Unix based servers have been hit hard over the last 20 years and now represent just a small piece of the market. Windows remains the server operating system leader and continues to gain share, even as Linux continues to grow faster. Linux is open-source and theoretically "free." That said, Red Hat made a business out of offering support contracts to enterprise customers for an otherwise "free" product. Despite Linux being free and being extremely stable, customers are still overwhelmingly willing to pay for Windows Server. We believe such pricing power supports our wide-moat stance.

Microsoft's presence in the PC market with both its OS and Office productivity software allowed it to easily enter the server market just as the server market was undergoing a major transformation. Great timing helped build a substantial installed base. Today the IT backbone of many of the largest companies in the world is built on Microsoft Server. We reiterate that replacing any part of the core of an enterprise's IT environment would be a significant undertaking for any company in terms of financial cost, time, and risk. In other words, switching costs are high.

Critically, we believe that Microsoft's unique ability to move clients from an on-premises Microsoft environment to a cloud Microsoft environment via Azure is a structural advantage. As the cloud theme has evolved it has become increasingly apparent that companies' IT environments will be hybrid-based for years to come.

Lastly, the early lead and substantial market share led to a wide variety of developers joining the ecosystem bringing in applications, middleware, and development tools. This has helped Microsoft Server become the path of least resistance for CIOs and IT managers as well: a larger installed base attracts developers, which in turn attracts more customers.

We believe Microsoft's SQL Database Management System (DBMS) is protected by a wide moat driven by high switching costs. Over the years the company has developed a strong technology core for DBMS and continues to add to an already strong portfolio. Beyond the portfolio breadth, Microsoft's DBMS offers a good value for customers as well. In short, the company has made it easy for customers to select Microsoft and stick with them over time. We view Microsoft DBMS as one of several leading database products along with AWS, SAP, Oracle, and IBM, with Microsoft and Oracle being a cut above the others. This is a co environment, and changing it would involve significant costs, t test, train and realign with prior day to day processes, and inv virtue of offering clients the ability to migrate to the cloud on t think Microsoft has solidified its position for years to come.

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We believe high switching costs and cost advantages drive a v clearly the growth engine for the Intelligent Cloud segment, ar "new" Microsoft will be built around. Azure is a next-generatio the Dynamics 365 and Office 365 SaaS business to offer Infrastructure as a Service (IaaS) and Platform as a Service (PaaS). The lines are often blurry between IaaS and PaaS. In an IaaS model, the provider offers the necessary hardware, virtualization, networking, and storage as a computing service delivered over the Internet. Other basic software-level functionality can be layered in and still have the offering be considered IaaS. However, as software is added, IaaS quickly becomes PaaS. In PaaS model, the provider also offers and hosts operating systems, middleware, and core IT applications (notably database). Additionally, PaaS is generally thought of as an application development platform, which is again another level of complexity. Overall, the practical boundaries between different PaaS offerings is murky. We view Azure, AWS, and Google Compute as leaders in this category, with AWS and Azure being the clear leaders. We also view Salesforce and ServiceNow as competitors in this area for some use cases.

We estimate revenue from Azure itself is a mid-to-high single-digit percentage of revenue, growing by more than 75% annually. We believe the company's presence in traditional on-premises deployments of Server (and SQL database) have helped guide customers toward Azure for both fully public and hybrid deployments. It is simply the path of least resistance for many CIOs—Microsoft offers a worry-free product and a seamless transition from on-premises to Azure. Users would overwhelmingly not even notice the company shifted workloads to the cloud.

Further, we believe it is cheaper initially for companies to move workloads to the cloud, as there are less upfront costs and a lower bar to clear for maintenance and administration. Along those lines, Microsoft offers scale advantages to Azure clients in that at least some cloud offerings are cheaper relative to AWS, and it has scale by being larger than all but one competitor and possessing the largest worldwide data center footprint, with 54 locations around the world. Compliance regulations in many countries are increasingly requiring local data storage, so a global footprint is critical.

We believe that given the commodity-like nature of consulting services, as evidenced by its low(er) margin structure, Microsoft Enterprise Services (MES) is not protected by a true moat. However, we believe MES should be able to maintain its market position as a result of being part of the largest software company in the world. The move from on-premises to cloud and/or hybrid environments remains a complex task. Given the company's position as a leader in both traditional (Windows Server and SQL products) and cloud (Azure), we believe customers will continue to engage with Microsoft for professional services. This is also supported by the broader trend within technology to consolidate vendors to ease the burden on CIOs and IT management professionals.

Visual Studio's narrow moat is supported by high switching costs and network effects. Visual Studio is an integrated development environment (IDE) used to develop computer applications, mobile apps, websites, and web apps. Visual Studio supports more than 35 languages with code editing, automated code completing, and debugging. Additionally, Microsoft includes the .NET

framework with its Windows OS license. Microsoft .NET is effectively a library of source code that developers can access for ensuring common functions work correctly without having to actually write the code themselves. Thus it saves time and requires no de-bugging. To further bolster Visual Studio, Microsoft acquired Xamarin. Xamarin is a software development tool that allows for cross platform application development. For exampl
various other languages) can be used for the same app on bot
Microsoft has used its presence to attract more users, which i
virtuous circle. Additionally, developers have a lot invested in t
learning certain languages and how to efficiently write softwa
experience informs us that it would be a time-consuming, and
additional languages on a different platform.

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The GitHub acquisition (closed Oct. 26, 2018) bolsters Microso
Given that GitHub is a repository for source code and an online collaboration community for software developers, it enjoys some level of network effect as the "Facebook for programmers," and makes Visual Studio a stickier product. Our preliminary assessment of the company suggests it reinforces our narrow moat rating. GitHub will retain its developer-first mentality, operate independently, and remain an open platform. It will be incorporated into the Intelligent Cloud segment so that Microsoft and GitHub will work together to empower developers to achieve more at every stage of the development lifecycle, accelerate enterprise use of GitHub, and expand its community of developers. The company was exploring an IPO and last saw a public valuation in 2015 at approximately $2 billion. Google, Apple, Amazon, Facebook, and Microsoft each have a material presence on GitHub and use if for documentation and code. It remains to be seen if these mega-cap tech competitors will allow their developers to continue to use GitHub.

Microsoft's "More Personal Computing" segment includes Windows, Gaming, Devices, and Search. We assign the segment a narrow moat rating based on high switching costs and network effects.

Microsoft Windows' wide moat is supported by high switching costs and a network effect. Windows accounts for approximately 18% of total revenue and is growing in the mid-single-digit area. It enjoys an 83% global market share for PC operating systems. Apple has the next largest share at 13%. The only other realistic alternatives are Linux and Chrome. We believe Windows has very slowly been bleeding market share with the rise of Apple and the introduction of some alternative PC operating systems. Despite a slow bleed of market share over a decade, Windows revenue has grown for three consecutive years. We simply do not believe there is a viable OS alternative. Additionally, other than IT managers and CIOs, PC users overwhelmingly do not contemplate their operating system.

At the core of Windows longevity is the fact that its predecessor, Microsoft DOS, enjoyed a first mover advantage, coupled with a liberal licensing strategy that allowed it to quickly become the de facto standard in desktop operating systems from the outset. The timing could not have been better, as this was right as the PC was born and the market opportunity was completely greenfield.

At the enterprise level, CIOs and IT managers require proven reliability, significant software support, and a product roadmap to insure their investment in IT infrastructure will offer an appropriate return. Windows is ubiquitous and proven. There have literally been billions of instances of Windows installed. Enterprises will often skip Windows versions and overwhelmingly not even upgrade to newer versions until the first (or second) service pack is released. We believe there is simply too much at stake in financial, operational, and informational terms to warrant companies switching to competing operating systems.

Additionally, software is overwhelmingly written for Windows. Because of the first mover advantage and concurrent de facto status as the standard in desktop OS software, software was initially written for Windows. Initially, this was a virtuous circle, as developers wrote software for the large installed base of DOS-based PCs, and users quickly coalesced around DOS because it became the most useful. Over time, Microsoft introduced a va that brought it additional users and developers. The same app is overwhelmingly written for the Windows OS. Consumer PC written for Windows.

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We do not believe Microsoft's Gaming segment warrants an e of a gaming console has been expanding but is realistically sti not have enough confidence that the business can generate e years. We believe that Gaming is supported by high switching that such benefits are not necessarily sustainable over the next decade. Gaming includes Xbox unit sales; game software sales; Xbox Live transactions, subscriptions, and advertising, and third-party video game royalties. Gaming revenue is approximately 9% of total and is growing in the low-double-digit area.

High switching costs are explicit in the hardware platform, which for leading edge units is $500, while trailing versions of the device are $250. New games typically retail for $60. Battery packs, second controllers, and headsets will cost another $100 in aggregate. In short, with a handful of games, essential accessories, and the console itself, a user is looking at an investment of approximately $1,000. Games have typically been backward compatible but in recent new platform releases, console makers have skipped this, which has certainly angered users.

Gamers inevitably enjoy gaming with friends or within a community of gamers they are familiar with, and cross platform gaming has generally not been possible. Therefore, users tend to want to be on the same platform as their friends. More gamers on a particular console attract developers to write more games and offer exclusive content on a given platform, which in turn attracts more gamers. Microsoft currently boasts 56 million MAU on Xbox Live. Meanwhile, Microsoft has added features over the years to make the Xbox platform more sticky for its gaming community, including Xbox Live, xCloud streaming, various apps on the console itself, networking functionality, free games, and Xbox Game Pass (Netflix for video games).

We do not believe the Microsoft Surface enjoys a moat of any kind. We do not believe that there is much, if any sustainable differentiation between a Microsoft Surface and generally competitive products such as a Windows or Mac laptop, an Apple iPad, or a Google ChromeBook. This is generally reflected in low(er) product gross margins. Other devices within this category include computer peripherals (keyboards, mice, etc) and the HoloLens. On the HoloLens in particular, we remain skeptical on virtual and augmented reality within the next several years. Microsoft has not enjoyed much success in noncore devices in recent years, with the high-profile Zune and large acquisition of Nokia serving as reminders that hardware is a challenging business. Finally, we also do not believe there is a sustainable moat in Microsoft's Bing search engine.

**Fair Value and Profit Drivers** | by Dan Romanoff Updated Jan 30, 2020

Our fair value estimate for Microsoft is $185 per share, which implies a fiscal 2021 enterprise value/sales, or EV/S, multiple of 10 times, adjusted price/earnings multiple of 32 times, and a 4% free cash flow yield.

We model total revenue growth slowing from 13% in fiscal 2020 to 8% in fiscal 2029, representing a 5-year CAGR of approximately 11%. We foresee stronger revenue growth ahead as Microsoft's prior decade was bogged down by the downturn in 2008, the complete evaporation of mobile handset revenue from the disposal of the Nokia handset business, as well as the onset of the model transition to subscriptions (which initially results in slower revenue growth). We believe revenue growth will be driven by Azure, Office 365, Dynamics 365, and LinkedIn. Azure, in particular, is the single most critical revenue driver over the next 10 years, in our view, as hybrid environments (where Microsoft excels) driv believe the combination of Azure, DBMS, Dynamics 365, and C growth as CIOs continue to consolidate vendors. We believe M modestly above GDP over the next 10 years. We also model op steadily from 37% in fiscal 2020 to 39% in fiscal 2024, driven b Azure continues to scale, as well as some operating leverage.

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**Risk and Uncertainty** | by Dan Romanoff Updated Jan 30, 2020

Microsoft faces risks that vary among the products and segments. High market share in the client-server architecture over the last 30 years means significant high margin revenue is at risk, particularly in OS, Office, and Server. Microsoft has thus far been successful in growing revenues in a constantly evolving technology landscape, and is enjoying success in both moving existing workloads to the cloud for current customers and attracting new clients directly to Azure. However, it must continue to drive revenue growth of cloud-based products faster than revenue declines in on-premises products. Microsoft is acquisitive, and while many small acquisitions are completed that fly under the radar, the company has had several high-profile flops, including Nokia and aQuantive. The LinkedIn acquisition was expensive but served a purpose and seems to be working out well in our view. It is not clear how much Microsoft bought in the Permira-led Informatica LBO, and it may have been an important strategic investment, but Informatica was certainly not a growth catalyst. The jury is out on GitHub, but our early read is this is an expensive but strategic investment. Lastly, the public cloud build-out remains in its early phases. AWS has taken the market by storm, with Azure trailing, but the two are seen as clear leaders. This is a rapidly evolving market and Microsoft must continually adjust its offerings, add solutions to the stack, and compete with a company that has built a business around aggressive pricing.

**Stewardship** | by Dan Romanoff Updated Jan 30, 2020

We believe Microsoft deserves an Exemplary stewardship rating. Satya Nadella took over as CEO of Microsoft in February 2014, after Steve Ballmer resigned in August 2013. Nadella joined Microsoft in 1992 and worked his way up to a variety of business unit leadership roles, mainly involving Cloud, Business, and Server & Tools groups. He was the President of the Server & Tools Division for the three years prior to becoming CEO. The company he took over is very different than the company we see today, and the transformation has been nothing short of dramatic.

We can point to several specific actions Nadella has undertaken. The first was the $2.5 billion acquisition of Mojang in 2014, which brought in the popular Minecraft title to the Gaming division. His next move in 2015 was to invest alongside Permira in its acquisition of Informatica (INFA), a data integration middleware provider. INFA is available on Azure as part of Microsoft's PaaS offering. In 2016, Microsoft wrote Nokia off and jettisoned the division. We believe the Nokia acquisition was a desperate attempt to have a relevant presence in the mobile world. Unfortunately, it was too late by then, as Apple and Alphabet had already come to dominate the market in mobile operating systems. Almost immediately after selling the remaining Nokia assets, Microsoft announced the LinkedIn (LNKD) acquisition for $26.2 billion. LinkedIn's Recruiter tool was an important SaaS offering that can be either a standalone offering or as part of Dynamics. LinkedIn also served to provide something Microsoft badly needed--a meaningful Internet presence. Microsoft disclosed in January 2019 that LinkedIn has 600 million members. Most recently, Microsoft acquired privately held GitHub for $7.5 billion in October 2018, which fits in well and expands tools available to Microsoft's extensive developer community.

While the direct actions under Nadella are easy to identify, he has also had a critical impact on strategic and cultural areas. Strategically, Nadella has increasingly shifted the company's focus to the cloud, accelerated the shift to a subscription-based model, and embraced the open-source movement in IT more broadly. Nadella's acquisitions fit with and contributed to the new strategic direction. The embrace of the open source movement is a strat shifting the culture of the company to allow that to happen in impressive feat in our view. Old Microsoft viewed open source Microsoft has sponsored the Open Source Initiative, an influen In our experience, there are few examples of such a dramatic s companies. Under his watch, Microsoft very quickly became m organization.


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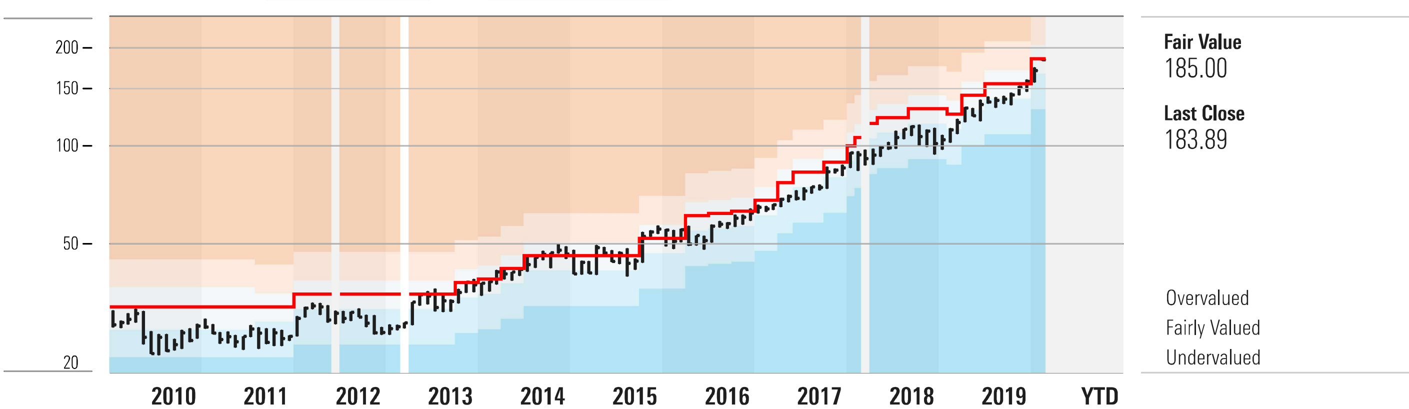
These direct and indirect actions, and perhaps good timing, le centerpiece of the new company. While it has certainly taken some investment and patience, Azure has taken off. While Microsoft does not disclose figures directly, the company did note that Azure grew by more than 90% in fiscal 2018, to more than $7 billion by our estimate. We believe hybrid deployments will carry the day over the course of the next several years and that Nadella's leadership has significantly strengthened Microsoft's competitive position. The company is also making other moves into what should be significant markets. The company is increasingly talking about artificial intelligence, "Internet of Things," and virtually reality, and is introducing new offerings on Azure to capitalize on these substantial opportunities. While we are skeptical in the near term on the HoloLens and virtual reality, artificial intelligence is already being integrated into various solutions. Further, IoT is an interesting market to explore how a Windows OS, Azure, and Power BI combination can help distill insights from an ocean of data.

Microsoft continues to increase quarterly dividends and shrink the share count. Dividends per share have grown at a 13% CAGR over the last five years. The dividend yield is approximately 1.7%. Microsoft has repurchased more than $53 billion in stock over the last five years. We believe the company will continue to buy back shares, shrink the share count, and raise the quarterly dividend over the next several years. Insiders own 109 million shares, or 1.4% of shares outstanding. The board consists of 14 members, two of which are internal—Nadella and the iconic founder, Bill Gates. Lastly, management compensation skews heavily toward equity equivalents and therefore aligns well with shareholder interests. We do not see governance issues.


**Close Full Analysis**

**View Report Archive**


**Price vs. Fair Value** Advanced | Basic Logarithmic | Linear



| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.87 | 0.81 | 0.76 | 0.98 | 1.01 | 1.07 | 0.99 | 0.96 | 0.78 | 1.02 | 0.99 | Price/Fair Value |
| -6.63 | -4.55 | 6.09 | 43.69 | 27.24 | 22.22 | 14.65 | 40.22 | 20.21 | 57.12 | 16.61 | Total Return % |
| -23.42 | -6.13 | -10.18 | 10.56 | 14.38 | 21.53 | 2.21 | 18.74 | 25.26 | 25.90 | 13.47 | +/- Index |

USD | As of Feb 07, 2020 | Index: Morningstar US Market TR USD

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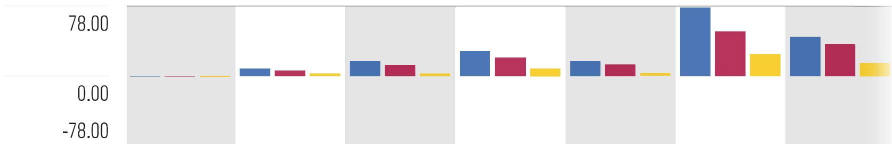
## Trailing Returns

Daily | Monthly | Quarterly




| Total Return % | 1-Day | 1-Week | 1-Month | 3-Month | YTD | 1-Year | 3-Year | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MSFT | 0.14 | 8.02 | 16.70 | 27.82 | 16.61 | 76.48 | 43.80 | 35.17 | 21.45 | 14.43 |
| Software - Infrastructure | -0.13 | 6.18 | 11.98 | 20.67 | 13.02 | 49.78 | 35.17 | 26.60 | 18.81 | 13.95 |
| Morningstar US Market TR USD | -0.56 | 3.11 | 2.88 | 8.32 | 3.14 | 24.38 | 15.00 | 11.99 | 14.36 | 9.49 |
| +/-Software - Infrastructure | 0.28 | 1.85 | 4.71 | 7.16 | 3.59 | 26.70 | 8.64 | 8.58 | 2.64 | 0.49 |
| +/-Morningstar US Market TR USD | 0.70 | 4.92 | 13.82 | 19.50 | 13.47 | 52.10 | 28.80 | 23.18 | 7.09 | 4.94 |

As of Feb 07, 2020 | Sector: Software - Infrastructure | Index: Morningstar US Market TR USD

## Financials

### Valuation

| Price/Book | Price/Cash Flow | Price/Sales | Price/Earnings |
|---|---|---|---|
| 12.71 | 26.25 | 10.57 | 32.05 |

As of Feb 06, 2020

### Growth (3-Year Annualized)

| Revenue % | Operating Income % | Net Income % | Diluted EPS % |
|---|---|---|---|
| 11.35 | 16.47 | 24.08 | 25.50 |

As of Jun 29, 2019

### Financial Health

| Quick Ratio | Current Ratio | Interest Coverage | Debt/Equity |
|---|---|---|---|
| 2.65 | 2.80 | 19.95 | 0.70 |

As of Dec 30, 2019

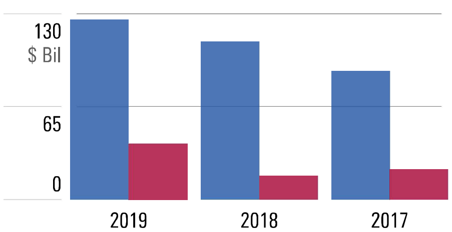
### Profitability

| Return on Assets % | Return on Equity % | Return on Invested Capital % | Net Margin % |
|---|---|---|---|
| 16.37 | 43.83 | 26.08 | 33.02 |

As of Dec 30, 2019

Annual | Quarterly    As Originally Reported | Restated

### Income Statement

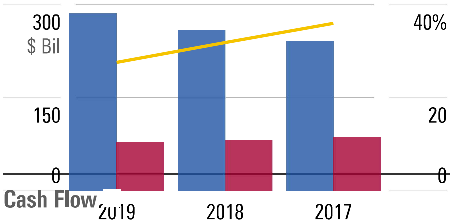



| | TTM | 2019 | 2018 | 2017 | 3-Yr Trend |
|---|---|---|---|---|---|
| Revenue (Bil) | 134.25 | 125.84 | 110.36 | 89.95 | |
| Operating Income (Bil) | 49.32 | 42.96 | 35.06 | 22.63 | |
| Net Income (Bil) | 44.32 | 39.24 | 16.57 | 21.20 | |
| Diluted EPS | 5.74 | 5.06 | 2.13 | 2.71 | |
| Normalized Diluted EPS | 5.36 | 4.66 | 1.74 | 2.36 | |

### Balance Sheet

Assets    Debt    Debt/Assets

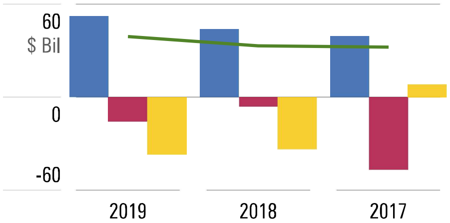
| | Q2 2020 | 2019 | 2018 | 2017 | 3-Yr Trend |
|---|---|---|---|---|---|
| Total Assets (Bil) | 282.79 | 286.56 | 258.85 | 241.09 | |
| Total Liabilities (Bil) | 172.69 | 184.23 | 176.13 | 168.69 | |
| Total Debt (Bil) | 76.78 | 78.37 | 81.81 | 86.19 | |




| | | | | | |
|---|---|---|---|---|---|
| Total Equity (Bil) | 110.11 | 102.33 | 82.72 | 72.39 |  |
| Cash, Cash Equivalents and Short Term Investments (Bil) | 134.25 | 133.82 | 133.77 | 132.98 |  |

## Cash Flow

Operating Investing Financing



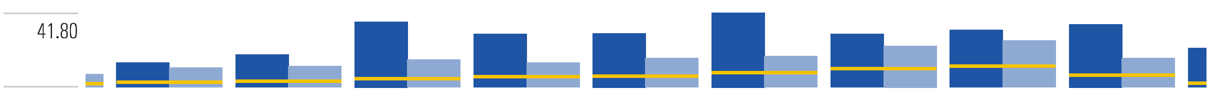

| | TTM | 2019 | 2018 |
|---|---|---|---|
| Operating (Bil) | 54.13 | 52.19 | 43.88 |
| Investing (Bil) | -16.43 | -15.77 | -6.06 |
| Financing (Bil) | -35.41 | -36.89 | -33.59 |
| Free Cash Flow (Bil) | 40.58 | 38.26 | 32.25 |

Analyst Note

- Business Strategy and Outlook
- Economic Moat
- Fair Value and Profit Drivers
- Risk and Uncertainty
- Stewardship
- Close Full Analysis

Fiscal year ends in Jun 30 | USD in Bil except per share data

## Valuation

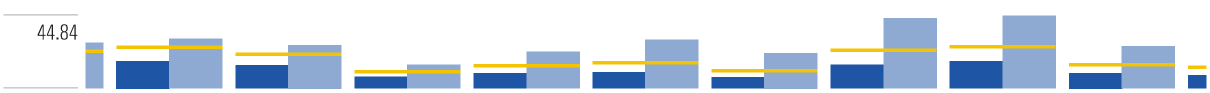



| Calendar | 12 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Current | 5-Yr |
|---|---|---|---|---|---|---|---|---|---|---|
| Price/Sales | 11 | 3.94 | 4.25 | 5.00 | 5.79 | 7.22 | 6.88 | 9.40 | 10.57 | 6.43 |
| Price/Earnings | 68 | 14.01 | 18.22 | 36.74 | 29.73 | 30.23 | 41.80 | 29.75 | 32.04 | 35.25 |
| Price/Cash Flow | 44 | 11.08 | 12.02 | 15.48 | 13.74 | 16.54 | 17.53 | 23.31 | 26.23 | 16.27 |
| Price/Book | 08 | 3.80 | 4.23 | 5.68 | 6.83 | 7.35 | 9.08 | 11.32 | 12.70 | 7.68 |

USD | As of Feb 09, 2020 | Index: Morningstar US Market TR USD

**More Valuation Data**

## Operating Performance




| Fiscal | 12 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | TTM | 5-Yr |
|---|---|---|---|---|---|---|---|---|---|---|
| Return on Assets % | 77 | 16.58 | 14.02 | 7.00 | 9.08 | 9.75 | 6.63 | 14.39 | 16.37 | 9.41 |
| Return on Equity % | 51 | 30.09 | 26.17 | 14.36 | 22.09 | 29.37 | 21.37 | 42.41 | 43.83 | 25.33 |
| Return on Invested Capital % | 25 | 25.70 | 21.79 | 11.16 | 14.81 | 16.36 | 11.49 | 24.13 | 26.08 | 15.16 |

USD | Index: Morningstar US Market TR USD

**More Operating Performance Data**

## Dividends & Splits

Dividends | Splits


| Calendar | 12 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Current | TTM |
|---|---|---|---|---|---|---|---|---|---|---|
| Dividend Per Share | 83 | 0.97 | 1.15 | 1.29 | 1.47 | 1.59 | 1.72 | 1.89 | 2.04 | 2.04 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Trailing Dividend Yield % | 11 | 2.59 | 2.48 | 2.33 | 2.37 | 1.86 | 1.69 | 1.20 | 1.03 | 1.03 |
| Buyback Yield % | 53 | 1.67 | 1.94 | 3.57 | — | — | — | — | 1.31 | 1.31 |
| **Total Yield %** | 64 | 4.26 | 4.42 | 5.90 | 2.37 | 1.86 | 1.69 | 1.20 | 2.34 | 2.34 |

82.12
23.27

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Payout Ratio % | 60 | 34.46 | 43.92 | 82.12 | 68.90 | 55.12 | 69.14 |

Analyst Note
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| **Ex-Dividend Date** | **Record Date** | **Payable Date** | **Divid** |
|---|---|---|---|
| Upcoming Dividends | | | |
| Feb 19, 2020* | Feb 20, 2020* | Mar 12, 2020* | Cash |
| ▼ 2019 | | | |
| Nov 20, 2019 | Nov 21, 2019 | Dec 12, 2019 | Cash Dividend |
| Aug 14, 2019 | Aug 15, 2019 | Sep 12, 2019 | Cash Dividend |
| May 15, 2019 | May 16, 2019 | Jun 13, 2019 | Cash Dividend |
| Feb 20, 2019 | Feb 21, 2019 | Mar 14, 2019 | Cash Dividend |
| ▶ 2018 | | | |
| ▶ 2017 | | | |
| ▶ 2016 | | | |
| ▶ 2015 | | | |

**Dividend Yield (TTM)**
1.03%

**Div Reinvestment Plan**
No

USD | As of Feb 09, 2020 | *Indicates upcoming reported dividend information

## Ownership

Major | Concentrated | Buying | Selling | Funds | Institutions

| Name | Morningstar Rating | % Total Shares Held | % Total Assets | Total Ownership: Trend Prev. 8 Qtrs | Current Shares | Change Amount |
|---|---|---|---|---|---|---|
| Vanguard Total Stock Mkt Idx Inv | ★★★★ | 2.81 | 3.76 | | 214,894,399 | 282,079 |
| Vanguard 500 Index Investor | ★★★★ | 2.00 | 4.47 | | 152,413,277 | 739,243 |
| SPDR® S&P 500 ETF Trust | ★★★★★ | 1.15 | 4.86 | | 87,766,837 | 146,816 |
| Vanguard Institutional Index I | ★★★★★ | 0.90 | 4.48 | | 68,989,633 | 254,500 |
| American Funds Growth Fund of Amer A | ★★★ | 0.88 | 5.28 | | 67,243,365 | 291,735 |
| Total (for Top 5) | | 7.74 | | | 591,307,511 | 621,903 |

More Ownership Data

## Executive Team

Key Executives | Board of Directors | Committees | Transaction History

| Name | Title | Age | Compensation USD: 2015 | 2016 | 2017 |
|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| ▶ Satya Nadella | Director and Chief Executive Officer | 52 | 18,294,270 | 17,692,031 | 20,014,152 | 25,8 |
| ▶ Amy Hood | Executive Vice President and Chief Financial Officer | 47 | 8,754,963 | 10,374,630 | 11,582,144 | 14,9 |
| ▶ Bradford L. Smith | President and Chief Legal Officer | 60 | 6,800,682 | 8,610,612 | 10,319,735 | 13,5 |
| ▶ Jean-Philippe Courtois | Executive Vice President and President, Microsoft Global Sales, Marketing and Operations | 58 | | | | |
| ▶ Margaret L. Johnson | Executive Vice President, Business Development | 57 | 14,53 | | | |
| ▶ Compensation for all Key Executives | | | 48,38 | | | |

Analyst Note
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**More Executive Team Data**

## Company Profile

**Business Description**

Microsoft develops and licenses consumer and enterprise software. It is known for its Windows operating systems and Office productivity suite. The company is organized into three overarching segments: productivity and business processes (legacy Microsoft Office, cloud-based Office 365, Exchange, SharePoint, Skype, LinkedIn, Dynamics), intelligence cloud (infrastructure- and platform-as-a-service offerings Azure, Windows Server OS, SQL Server), and more personal computing (Windows Client, Xbox, Bing search, display advertising, and Surface laptops, tablets, and desktops). Through acquisitions, Microsoft owns Xamarin, LinkedIn, and GitHub. It reports revenue in product and service and other revenue on its income statement.

**Contact**

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**Sector**

Technology

**Industry**

Software - Infrastructure

**Most Recent Earnings**

Dec 31, 2019

**Fiscal Year End**

Jun 30, 2020

**Stock Type**

Aggressive Growth

**Employees**

144,000.00
As of Jun 29, 2019