

Microsoft Corporation (MSFT)

\$172.78 (As of 01/30/20)

Price Target (6-12 Months): **\$184.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 01/30/19)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:C

Value: D

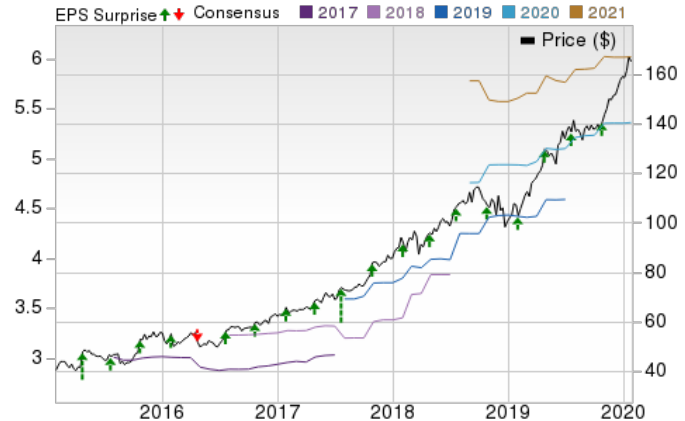
Growth: B

Momentum: A

Summary

Microsoft reported stellar second-quarter results. The company is benefiting from robust Commercial business. Moreover, Azure's expanding customer base is a key catalyst. The company is gaining from growing user base of its different applications like Office 365, Dynamics, Outlook mobile and Teams. Further, acquisitions like PlayFab and GitHub expand Microsoft's total addressable market (TAM) and penetration. Additionally, latest contract wins from the Department of Defense remain notable. Shares have outperformed the industry in the past year. However, declining console sales are likely to weigh on gaming revenues. Moreover, increasing expenditure on product development amid stiff competition from the likes of Google, Apple, and Sony is likely to limit margin expansion.

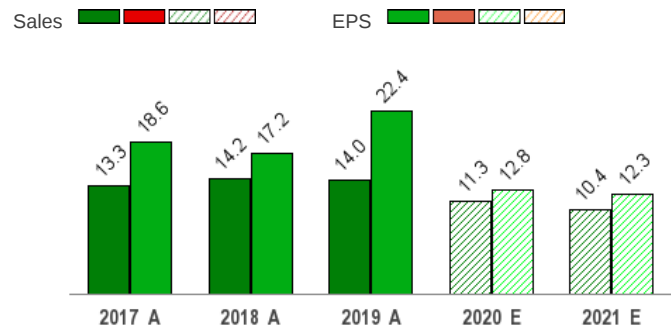
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$174.05 - \$102.35
20 Day Average Volume (sh)	25,022,124
Market Cap	\$1,314.2 B
YTD Price Change	9.6%
Beta	1.23
Dividend / Div Yld	\$2.04 / 1.2%
Industry	Computer - Software
Zacks Industry Rank	Top 21% (54 out of 255)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	14.4%
Last Sales Surprise	3.4%
EPS F1 Est- 4 week change	3.4%
Expected Report Date	04/22/2020
Earnings ESP	3.3%
P/E TTM	32.0
P/E F1	31.2
PEG F1	2.5
P/S TTM	9.8

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	36,224 E	39,684 E	37,662 E	40,960 E	154,710 E
2020	33,055 A	36,906 A	34,050 E	37,259 E	140,102 E
2019	29,084 A	32,471 A	30,571 A	33,717 A	125,843 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$1.46 E	\$1.46 E	\$1.42 E	\$1.63 E	\$6.02 E
2020	\$1.38 A	\$1.51 A	\$1.24 E	\$1.43 E	\$5.36 E
2019	\$1.14 A	\$1.10 A	\$1.14 A	\$1.37 A	\$4.75 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 01/30/2020. The reports text is as of 01/31/2020.

Overview

Redmond, Washington-based Microsoft Corporation is one of the largest broad-based technology providers in the world today. Although software is the most important revenue source, the company's offerings also include hardware and online services. Additionally, Microsoft offers support services in the form of consultation, training and certification of system integrators and developers.

Microsoft's products include operating systems for computing devices, servers, phones, and other intelligent devices; server applications for distributed computing environments; cross-device productivity applications; business solution applications; desktop and server management tools; software development tools; video games; and online advertising. They also design and sell hardware including PCs, tablets, gaming and entertainment consoles, phones, other intelligent devices, and related accessories. They offer cloud-based solutions that provide customers with software, services, platforms, and content.

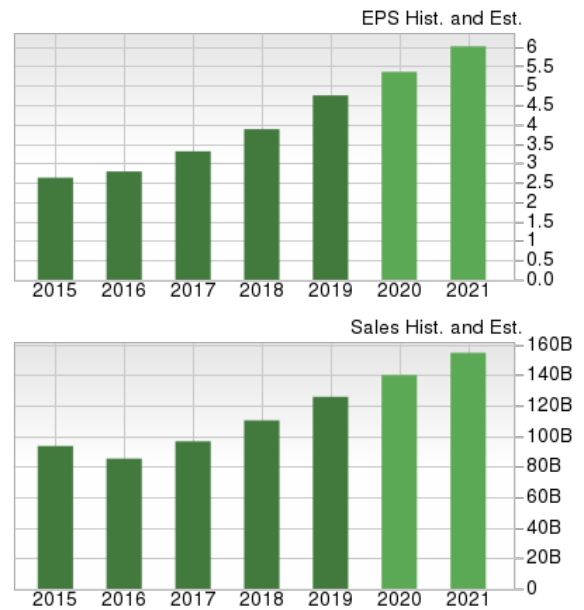
Microsoft reported revenues of \$125.8 billion in fiscal 2019. The company reports operations under three segments: Productivity & Business Processes, Intelligent Cloud and More Personal Computing.

Productivity & Business Processes (32.7% of fiscal 2019 revenues) includes the Office, Dynamics CRM and LinkedIn businesses.

Intelligent Cloud (30.9%) includes server, and enterprise products and services.

More Personal Computing (36.4%) comprises mainly the Windows, Gaming, Devices and Search businesses.

Microsoft faces stiff competition from the like of Google. Moreover, Apple's Macintosh has a loyal customer base, which is an additional pressure in the high end computing market, while its iPads are tough competition in the tablet segment. The gaming console market is also very competitive, since Sony and Nintendo are equally strong.



Reasons To Buy:

- ▲ Microsoft has a dominant position in the desktop PC market, with its operating systems being used in the majority of PCs worldwide. This is particularly true of the enterprise where the company generates much of its revenue and profits. But enterprise computing is undergoing changes with companies increasingly opting for the BYOD (bring-your-own-device) model. This has allowed competing platforms from Apple and Google with their very strong mobile ecosystems to increase penetration at the enterprise. So Microsoft is introducing new and improved Surface devices that could encourage enterprises to stick with Windows as they move toward BYOD and cloud computing. Microsoft's advantages in this respect are two-fold. First, the company has a very large installed base of Office users. Most legacy data is based on Office, so enterprises are usually reluctant to use other productivity solutions. Second, the BYOD model is dependent on security and cloud integration, both of which are Microsoft's strengths. As a result, Microsoft has been largely successful at retaining enterprise customers. With Windows 10, Microsoft is able to offer a seamless experience across devices, further improving its BYOD prospects. The enterprise PC market has been impacted over the last two years by supply chain issues, the drive to transfer computing operations to the cloud, tablet cannibalization, as well as weak macro conditions. Of these, the strongest challenge was related to tablets and independent research companies have said that this shift may have run its course. It is worth noting that despite the many pressures, Microsoft's dominant position in the traditional PC market and successive iterations of Windows platforms continue to generate solid revenues and cash flows for the company. This strength may be expected to continue as enterprise adoption of Windows 10 and consumer shift to Windows-as-a-service gathers momentum.
- ▲ Microsoft has doubled down on the cloud computing opportunity. In the cloud computing era, information and applications are increasingly stored, managed and protected in the cloud, from where only necessary amounts are accessed by devices of varying shapes, sizes, weights, functions and portability. As a result, software providers are increasingly offering their tools as-a-service on the basis of subscriptions for specified periods. This has opened the market to build suitable cloud infrastructure, where Microsoft with its Azure platform is second only to Amazon. Microsoft also offers a hybrid cloud solution that enables the integration of existing IT infrastructure with the public cloud. It is also increasingly entering into strategic collaborations with competitors like salesforce, Oracle AT&T and even Google to improve the experience of Microsoft platforms. The company is also pursuing growth in the SMB segment through partnerships with infrastructure providers such as GoDaddy. We think that growth prospects here are extremely bright, as organizations increasingly rely on private, public or hybrid clouds.
- ▲ Microsoft is one of the three largest providers of gaming hardware. Its Xbox console was one of the first gaming devices of its kind. Microsoft supplemented the hardware with a number of popular video game titles. It also introduced the Xbox Live online gaming service, which enabled subscribers to play online Xbox games with each other and download new games directly onto the device. Non-gaming applications, such as Facebook, Twitter, Netflix, Last.fm, Sky, Canal and Zune were also made available through Xbox Live. Xbox One, the latest of its game consoles had a relatively weak start and is unlikely to catch up with Sony's market-leading platform PS4 despite Microsoft's adding games and features including the Cortana personal assistant for quick access to and interaction with desired content and people, and Windows 10 integration that will allow streaming on connected Windows 10 computing devices. Recently, Microsoft also made a slew of announcements at the E3 2019. The company showcased a plethora of new games, comprising 11 world premieres and 14 from Xbox Game Studios as part of Xbox Briefing. Microsoft has long since dissociated Kinect from the device, which allowed it to lower the price. This platform has assumed greater importance for Microsoft because it marks its entry into the living room.
- ▲ Microsoft's Bing search engine is taking market share largely from smaller rivals and benefiting from its agreement with Yahoo. Strategic actions, such as the agreement with HP to put Bing as the default search engine on its PCs have also helped. Also, Apple and Google are increasingly competing with each other in the mobile segment, which is proving to be of strategic importance to Microsoft. With iOS 9, Apple is making its personal assistant Siri central to the iOS experience and Siri uses Bing to a certain extent. It's very likely that Apple will want to reduce reliance on any other company for search, but until it is able to do the requisite indexing, Bing is likely to remain a part of the story. Facebook has also chosen Bing to support its "Graph Search". While Office is the window to capture work-related consumption of Microsoft services, a search engine is an important window to capture personal consumption. Also, Microsoft has tied Bing into its Windows 10 OS, such that it will become the default search cum assistant for users. Since it will become hard to avoid Bing for daily use, it can be an effective tool to steal share from Google.
- ▲ Management execution has been good in recent times. This has helped Microsoft build cash and short term investments balance of of \$136.6 billion, up from \$133.8 billion from the previous quarter. The significant amount of cash provides the flexibility required to pursue any growth strategy, whether by way of acquisitions or otherwise. Additionally, while the mix of hardware sales in any given quarter results in gross margin fluctuations, the focus on cost reduction has increased, which is a positive for cash flow. This is not a mean feat considering that the business is undergoing a massive transition related to secular shifts in its served markets.

The enterprise refresh cycle, new subscription model, Azure and promising new products will continue to generate sizeable cash flows.

Reasons To Sell:

- ▼ Our immediate concern about Microsoft is regarding the softness in the core computing market. The company is dependent on this market for the largest chunk of its revenue. Microsoft continues to be impacted by the tablet and mobile cannibalization of computers. This is a secular negative for the company and the future growth of Windows is greatly dependent on its ability to build position in mobile devices, particularly tablets. The distribution story is still a work in progress however although Microsoft has made some headway with important alliances with companies like HP and Dell, as well as other smaller distributors. Emerging markets remain a positive, although they are essentially price sensitive, so Microsoft is likely to see stiff competition from Android and Chrome at multiple price points while Apple will make things difficult at the high end.
- ▼ Microsoft is the dominant provider of operating systems into the PC market. So any new player, or any technology advancement in the space, unless by Microsoft itself, results in market share erosion. While Google Chromebooks/ Android tablets and Apple Macintosh/iPad are splitting the market, Microsoft's opportunity lies in its ability to transition rapidly to a cloud and mobile focus. To date, the sales of many Microsoft products are tied to the attach rates of its Windows OS, but as more of its products are made available under an as-a-service model (like Office 365) on even competing platforms, there can be new revenue streams compensating for the loss of Windows licensing fees. The transition period is not likely to be easy and execution will be key.
- ▼ Microsoft is seeing increased competition from all quarters. Particularly, Google seems to be present in all its markets. Although Google's focus has in the past been on search and online advertising, while Microsoft's has been on selling its software, the two companies are increasingly pitted against each other because of the conditions in the market. Google is now interested in not just search, but also other digital goods, cloud infrastructure and hardware while Microsoft is targeting search advertising to make good some of the losses resulting from the emergence of Android/Chrome while also entering new devices. Google is seeing tremendous success, with its Android OS emerging as the leading platform for smartphones and increasingly, tablets. Its Chromebooks are also seeing a good deal of success. We are particularly concerned since the PC market in developed nations is mature, while that in developing nations is cost-sensitive. Microsoft could lose out due to lack of market growth in developed nations and the cost of its OS in developing nations (Windows 10 will have a positive effect on consumer adoption, but the enterprise story is unlikely to change much). Moreover, Apple's Macintosh has a loyal customer base, which is an additional pressure in the high end computing market, while its iPads are tough competition in the tablet segment. Apple has also tied with IBM and SAP, which should have a positive impact on its enterprise penetration. The gaming console market is also very competitive, since Sony and Nintendo are equally strong. Moreover, there is severe price competition in this market and successful gaming titles are a must in order to push sales.
- ▼ We note that the Microsoft currently has a trailing 12 month P/B ratio of 12.43. This level compares unfavorably to some extent with what the industry saw over the last year. Hence, valuation looks slightly stretched from a P/B perspective.

Microsoft's business reorganization and "cloud-first mobile-first" execution risks remain. Competition is stiff and its dominant position in the PC market continues to be challenged.

Last Earnings Report

Microsoft Q2 Earnings Beat Estimates, Azure Strength Drives Top Line

Microsoft reported second-quarter fiscal 2020 non-GAAP earnings of \$1.51 per share, which beat the Zacks Consensus Estimate by 14.4%. The figure also surged 37% on a year-over-year basis (up 41% at constant currency or cc).

Revenues of \$36.096 billion improved 14% from the year-ago quarter (up 15% at cc). Further, the figure surpassed the Zacks Consensus Estimate of \$35.711 billion.

Robust execution and better-than-expected demand from customers for commercial cloud offerings drove the quarterly results.

Moreover, strong Commercial business positively impacted earnings and revenues. Commercial bookings surged 31% (30% at cc), courtesy of robust renewal implementation and increase in the Azure contracts. Commercial remaining performance obligation came in at \$90 billion, up 30% year over year at cc. Commercial revenue annuity mix was 89%, flat year over year.

Commercial cloud revenues were \$12.5 billion, surging 39% year over year (41% at cc).

Segmental Details

Productivity & Business Processes, which includes the Office and Dynamics CRM businesses, contributed 32% to total revenues. Revenues increased 17% (up 19% at cc) on a year-over-year basis to \$11.83 billion.

Office Commercial business (products + Office 365 & related cloud services) revenues were up 16% from the year-ago level (up 18% at cc). Office 365 commercial revenues climbed 27% (30% at cc), driven by strong installed base growth and average revenues per user (ARPU) expansion. Office 365 Commercial seat improved 21% on a year-over-year basis.

Office Consumer products and cloud services revenues increased 19% (up 20% at cc). Office 365 Consumer subscribers came in at 37.2 million, up from 35.6 million reported in the prior quarter.

Dynamics business improved 12% (up 15% at cc). Dynamics 365 revenues surged 42% (45% at cc). Dynamics adoption is improving with companies like AEP Energy and Canada Goose, selecting the application to digitize critical business processes.

LinkedIn revenues advanced 24% from the year-ago quarter (up 26% at cc). LinkedIn sessions were up 25%, reflecting acceleration in engagement.

Microsoft is benefiting from expanding user base of different applications like Microsoft 365 and Teams. Both solutions continue to witness strong adoption. Notably, Microsoft Teams boasts of more than 20 million daily active users.

Intelligent Cloud segment, which includes server, and enterprise products and services, contributed 32.2% to total revenues. The segment reported revenues of \$11.87 billion, up 27% (up 28% at cc) year over year.

Server product and cloud services revenues rallied 30% year over year (up 32% at cc). The high point was Azure's revenues, which surged 62% year over year (up 64% at cc).

On-premise server products revenues increased 10% (up 12% at cc), driven by customer demand for hybrid solutions, and premium server versions. Further, robust demand from end of support for Windows server 2008 was a positive.

Further, enterprise mobility installed base revenues improved 35% to more than 127 million seats.

Moreover, enterprise service revenues increased 6% (up 7% at cc) in the reported quarter, on account of growth in Premier Support Services.

More Personal Computing segment, which primarily comprises Windows, Gaming, Devices and Search businesses, contributed 35.8% to total revenues. Revenues were up 2% (up 3% at cc) year over year to \$13.21 billion.

Windows OEM pro revenues, contributing 40% to total Windows revenues, improved 26% on a year-over-year basis, primarily due to better-than-expected Windows 10 demand and growth in Windows 7 end of support. Moreover, inventory levels ended the reported quarter in the normal range.

Windows OEM non-Pro revenues, contributing 20% to total Windows revenues, increased 4% year over year, primarily owing to favorable timing of license purchases from the company's OEM partner.

Windows commercial products and cloud services revenues, contributing 30% to total Windows revenues, increased 25% year over year (up 27% at cc), on the back of higher customer adoption of Microsoft 365 offerings that led to higher mix of revenue recognition in the reported quarter.

Gaming revenues declined 21% (20% at cc), due to lower sales volume from console.

Xbox content and services revenues declined 11% (down 9% at cc) year over year.

Surface revenues increased 6% (up 8% at cc) from the year-ago quarter.

Quarter Ending **12/2019**

Report Date	Jan 29, 2020
Sales Surprise	3.40%
EPS Surprise	14.39%
Quarterly EPS	1.51
Annual EPS (TTM)	5.40

Search advertising revenues, excluding traffic acquisition costs (TAC), grew 6% (up 7% at cc).

Operating Results

Non-GAAP gross margin of 67% expanded 500 basis points (bps) on a year over year, driven by higher commercial cloud margins and favorable sales mix.

Productivity & Business Process gross margin increased 2 points year over year primarily due to improvements in LinkedIn and Office 365 margin expansion, which more than offset unfavorable cloud mix.

Moreover, Intelligent Cloud segment gross margin was up 1 point year over year, attributable to favorable mix of Azure IaaS and PaaS revenue offset by material improvement in Azure gross margin.

More Personal Computing gross margin increased 7 points year over year on account of favorable sales of higher-margined products.

Commercial cloud gross margin was 67%, up 5 percentage points year over year, due to improvement in Azure gross margin.

Operating expenses of \$10.7 billion were up 9% from the year-ago quarter (up 9% at cc) on the back of higher investments in cloud and AI engineering, and LinkedIn.

Operating margin expanded 600 bps on a year-over-year basis to 37.6%.

Productivity & Business Process operating income grew 29% (up 33% at cc) to \$5.2 billion. Intelligent Cloud operating income surged 38% (up 42% at cc) to \$4.5 billion. More Personal Computing operating income rallied 41% (up 45% at cc) to \$4.2 billion.

Balance Sheet & Free Cash Flow

Microsoft ended with cash and short-term investments balance of \$134.25 billion, down from \$136.6 billion from the previous quarter. Long-term debt (including current portion) came in at \$69.6 billion compared with \$69.5 billion from the previous quarter.

Operating cash flow during the reported quarter came in at \$10.7 billion compared with \$13.8 billion reported in the previous quarter. Free cash flow during the quarter came in at \$7.1 billion, down from \$10.4 billion reported in the prior quarter.

In the reported quarter, the company returned \$8.5 billion to shareholders in the form of share repurchases and dividends.

Guidance

For third-quarter fiscal 2020, Productivity and Business Processes revenues are anticipated between \$11.5 billion and \$11.7 billion, driven by double-digit growth in Dynamics, Office commercial and LinkedIn.

Intelligent Cloud revenues are anticipated between \$11.85 billion and \$12.05 billion. Azure's revenue growth is likely to reflect continued strength in the consumption and per-user based services.

More Personal Computing revenues are expected between \$10.75 billion and \$11.15 billion. Management noted that the wider guidance for the segment takes into account the uncertainty pertaining to coronavirus crisis in China. The company expects OEM revenues to grow sequentially backed by robust commercial demand for Windows 10. Surface revenues are anticipated to improve slightly year over year. Search advertising revenues, excluding TAC is expected to be in line on a sequential basis.

Gaming revenues are anticipated to be down year over year on declining console sales.

Management expects COGS between \$11.05 billion and \$11.25 billion, and operating expenses between \$11.2 billion and \$11.3 billion.

For fiscal 2020, management now expects operating expenses to increase 10-11% on a year-over-year basis, compared with prior guided range of 11-12%.

Recent News

On Jan 16, 2020, Microsoft revealed plans for reducing and eventually removing its carbon footprint. In fact, the company plans to become carbon negative by 2030, and to remove its entire carbon footprint by 2050.

On Jan 9, 2020, Microsoft announced enhancing Azure Availability Zones in the Azure Canada Central region. Additionally, the company will augment compute capacity of the region by more than 1300%.

On Dec 12, 2019, Microsoft unveiled Xbox Series X, slated to be available in holiday season of 2020.

On Dec 10, 2019, Microsoft and NTT Corporation (NTT) entered into a multi-year partnership in a bid to aid enterprises with advanced digital transformation solutions.

On Dec 5, 2019, Microsoft and KPMG expanded partnership. Per the terms of the deal, KPMG is utilizing Microsoft 365 suite, including Microsoft Teams, to digitize workplace. Moreover, KPMG is using Microsoft Azure and Azure AI capabilities to strengthen cloud-based platform.

On Dec 4, 2019, Microsoft announced quarterly dividend of 51 cents per share, payable Mar 12, 2020, to shareholders as on Feb 20, 2020.

On Oct 28, 2019, Microsoft unveiled new capabilities to IoT Central, Azure IoT Hub and Azure Maps, with an aim to deliver advanced IoT solutions with robust security capabilities.

On Oct 25, 2019, Microsoft secured the 10-year, \$10 billion Joint Enterprise Defense Infrastructure (JEDI) project from the Department of Defense (DoD).

On Oct 17, 2019, Microsoft entered into an alliance with Nuance Communications to develop conversational AI and ambient intelligence technologies to transform doctor-patient interaction.

Valuation

Microsoft shares are up 25.1% over the past six-month period and 68.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 16.6% and 15.6% in the past six-month period, respectively. Over the past year, the Zacks sub-industry and sector is up 45.4% and 28.4%, respectively.

The S&P 500 index is up 11.7% over the past six-month period and 20.4% in the past year.

The stock is currently trading at 29.06X forward 12-month earnings, which compares to 29.31X for the Zacks sub-industry, 22.78X for the Zacks sector and 18.97X for the S&P 500 index.

Over the past five years, the stock has traded as high as 29.96X and as low as 13.99X, with a 5-year median of 21.73X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$184 price target reflects 32.01X forward 12-month earnings.

The table below shows summary valuation data for MSFT

Valuation Multiples - MSFT					
		Stock	Sub-Industry	Sector	S&P 500
P/E F 12M	Current	30.08	29.63	22.53	18.83
	5-Year High	30.08	29.63	22.53	19.34
	5-Year Low	14.42	18.59	16.87	15.18
	5-Year Median	21.89	24.29	19.28	17.46
P/S F 12M	Current	8.87	7.36	3.67	3.49
	5-Year High	8.87	7.36	3.67	3.49
	5-Year Low	3.39	3.88	2.30	2.54
	5-Year Median	5.37	5.29	3.01	3.00
EV/Sales TTM	Current	9.34	7.79	4.36	3.29
	5-Year High	9.34	7.79	4.36	3.30
	5-Year Low	2.73	3.19	2.56	2.16
	5-Year Median	5.26	5.25	3.46	2.80

As of 01/30/2020

Industry Analysis Zacks Industry Rank: Top 21% (54 out of 255)



Top Peers

Apple Inc. (AAPL)	Outperform
Sony Corporation (SNE)	Outperform
Amazon.com, Inc. (AMZN)	Neutral
salesforce.com, inc. (CRM)	Neutral
Alphabet Inc. (GOOGL)	Neutral
International Business Machines Corporation (IBM)	Neutral
Oracle Corporation (ORCL)	Neutral
VMware, Inc. (VMW)	Neutral

Industry Comparison Industry: Computer - Software				Industry Peers		
	MSFT Neutral	X Industry	S&P 500	AAPL Outperform	AMZN Neutral	ORCL Neutral
VGM Score	C	-	-	B	B	B
Market Cap	1,314.17 B	2.08 B	23.91 B	1,417.09 B	927.48 B	171.00 B
# of Analysts	14	3.5	13	12	14	13
Dividend Yield	1.18%	0.00%	1.77%	0.95%	0.00%	1.80%
Value Score	D	-	-	D	D	B
Cash/Price	0.11	0.10	0.04	0.07	0.05	0.16
EV/EBITDA	21.50	21.80	14.07	18.01	32.35	11.25
PEG Ratio	2.51	2.26	2.00	2.25	2.61	1.41
Price/Book (P/B)	11.94	5.53	3.27	15.83	16.41	10.56
Price/Cash Flow (P/CF)	27.19	28.24	13.48	21.22	36.16	12.09
P/E (F1)	31.19	33.25	18.76	23.58	71.64	13.71
Price/Sales (P/S)	9.79	4.96	2.61	5.29	3.31	4.32
Earnings Yield	3.21%	2.79%	5.32%	4.24%	1.40%	7.30%
Debt/Equity	0.64	0.16	0.72	1.04	0.40	3.13
Cash Flow (\$/share)	6.35	1.01	6.88	15.26	51.74	4.41
Growth Score	B	-	-	B	A	D
Hist. EPS Growth (3-5 yrs)	16.25%	9.69%	10.68%	9.59%	116.18%	6.17%
Proj. EPS Growth (F1/F0)	16.54%	12.12%	7.73%	15.54%	13.49%	10.47%
Curr. Cash Flow Growth	19.70%	8.40%	12.29%	-3.74%	85.21%	-0.35%
Hist. Cash Flow Growth (3-5 yrs)	11.99%	8.09%	8.78%	7.40%	48.43%	-1.03%
Current Ratio	2.80	1.49	1.23	1.60	1.10	2.37
Debt/Capital	39.05%	18.28%	43.16%	50.97%	28.45%	75.79%
Net Margin	33.02%	7.06%	11.59%	21.49%	4.13%	27.62%
Return on Equity	40.41%	12.42%	17.38%	60.19%	22.00%	56.86%
Sales/Assets	0.48	0.64	0.54	0.80	1.48	0.37
Proj. Sales Growth (F1/F0)	12.68%	6.70%	4.05%	9.25%	17.99%	1.07%
Momentum Score	A	-	-	A	C	B
Daily Price Chg	2.82%	0.00%	-0.21%	-0.14%	0.68%	0.21%
1 Week Price Chg	-1.23%	0.00%	-1.09%	-0.13%	-0.17%	-1.92%
4 Week Price Chg	7.57%	6.59%	-0.01%	7.83%	-1.44%	-1.19%
12 Week Price Chg	19.77%	12.12%	4.14%	24.84%	4.61%	-4.77%
52 Week Price Chg	65.45%	28.41%	17.24%	94.59%	8.84%	6.13%
20 Day Average Volume	25,022,124	79,058	1,824,613	32,553,636	3,261,434	8,923,589
(F1) EPS Est 1 week change	3.32%	0.00%	0.00%	4.47%	-0.28%	0.00%
(F1) EPS Est 4 week change	3.44%	0.00%	0.00%	5.08%	-0.44%	0.00%
(F1) EPS Est 12 week change	3.47%	0.00%	-0.11%	5.19%	-1.65%	-0.02%
(Q1) EPS Est Mthly Chg	3.72%	0.00%	0.00%	5.83%	0.09%	0.00%

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	D
Growth Score	B
Momentum Score	B
VGM Score	C

As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

Disclosures

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