

Hewlett Packard (HPE)

\$9.07 (As of 07/07/20)

Price Target (6-12 Months): **\$9.50**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 06/08/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:A

Value: A

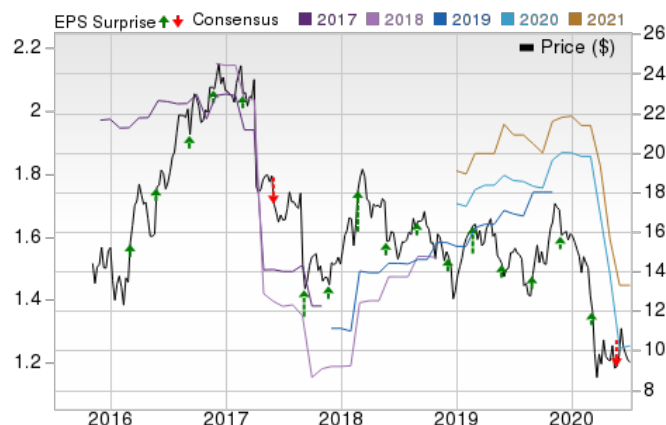
Growth: C

Momentum: A

Summary

Hewlett Packard is witnessing weaker server demand due to macroeconomic uncertainties, supply constraint, and ongoing shift to cloud computing. Moreover, organizations are pushing back their investments in big and expensive technology products due to global economic slowdown concerns, which can undermine HPE's near-term growth prospects. Nonetheless, HPE's efforts to shift focus to higher margin offerings like Intelligent Edge and Aruba Central Hyperconverged Infrastructure is aiding its bottom-line results. Additionally, the company's target of saving at least \$1 billion by fiscal 2022-end through cost optimization plan is a positive. Moreover, its multi-billion-dollar investment plan across expanding networking capabilities will help diversify business from server and hardware storage markets, and boost margins over the long run.

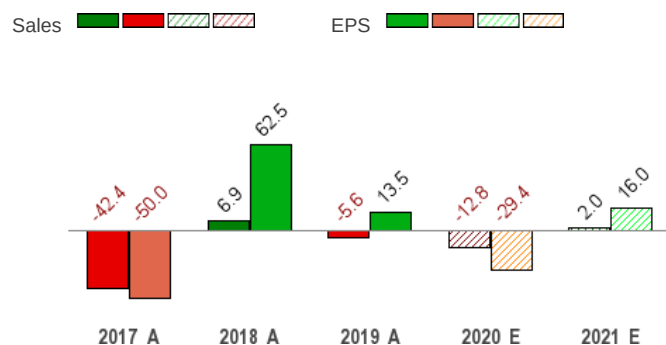
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$17.59 - \$7.43
20 Day Average Volume (sh)	13,153,381
Market Cap	\$11.7 B
YTD Price Change	-42.8%
Beta	1.33
Dividend / Div Yld	\$0.48 / 5.3%
Industry	Computer - Integrated Systems
Zacks Industry Rank	Bottom 31% (173 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	-29.0%
Last Sales Surprise	-7.2%
EPS F1 Est- 4 week change	0.7%
Expected Report Date	08/25/2020
Earnings ESP	0.0%

P/E TTM	5.7
P/E F1	7.3
PEG F1	1.1
P/S TTM	0.4

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	6,519 E	6,421 E	6,624 E	6,845 E	25,918 E
2020	6,949 A	6,009 A	6,144 E	6,475 E	25,403 E
2019	7,553 A	7,150 A	7,217 A	7,215 A	29,135 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.34 E	\$0.36 E	\$0.38 E	\$0.43 E	\$1.45 E
2020	\$0.44 A	\$0.22 A	\$0.24 E	\$0.32 E	\$1.25 E
2019	\$0.42 A	\$0.42 A	\$0.45 A	\$0.49 A	\$1.77 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 07/07/2020. The reports text is as of 07/08/2020.

Overview

Headquartered in Palo Alto, CA, Hewlett Packard Enterprise Company was formed as a result of the split of Hewlett-Packard Company into two separate entities – one focusing on the enterprise-facing hardware and service business and the other focusing on the consumer-facing computer and printer segments.

Effective Nov 1, 2015, the enterprise and service business-oriented company, Hewlett Packard Enterprise, started trading under the ticker symbol “HPE”, while the PC-focused business named, HP Inc., continues to trade under the symbol “HPQ”.

During fiscal 2017, the company divested its two business segments — Enterprise Services and Software. Hewlett Packard Enterprise has three reportable segments, namely Hybrid IT, Intelligent Edge and Financial Services. In fiscal 2019, the company reported revenues of \$29.1 billion.

The Hybrid IT segment (78% of total revenues) includes sub-segments, such as Compute, Storage, Data Center (DC) Networking and PointNext. While Compute and Storage consist of old servers and storage segments, DC Networking comprises the wired networking portion of the earlier “networking” segment. PointNext is made up of majority of the previous “technology services” segment.

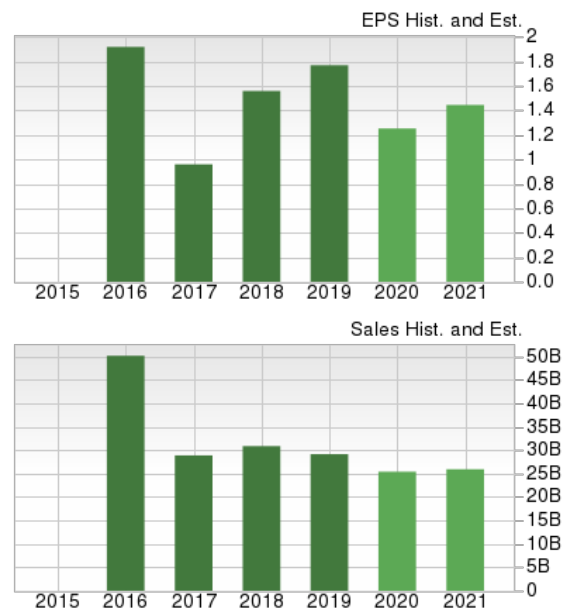
Intelligent Edge (10%) includes HPE Aruba and HPE Aruba Services, containing primarily the WLAN portion of the old “networking” segment with a small portion of the old “technology services” segment.

The Financial Services segment (12%) offers leasing, financing, IT consumption and utility programs, and asset management services.

In fiscal 2019, the United States contributed to 40% of sales and “Other” countries accounted for the rest.

The company markets and sells its products through distribution partners, resellers, original equipment manufacturers (OEMs), systems integrators, independent software vendors, and advisory firms.

The company's Hybrid IT segment is pitted against IBM, Dell, Cisco and Microsoft. Its Financial Services business faces competition from captive financing companies, mainly IBM Global Financing, as well as banks and other financial institutions.



Reasons To Buy:

- ▲ After the split from its parent company, Hewlett Packard Enterprise has made it clear that it will focus on restructuring and realigning its businesses to drive long-term sustainable growth and improve margins. This indicates that we may see Hewlett Packard Enterprise becoming even smaller with spin offs, or acquiring assets to enhance its capabilities in the hybrid IT model. By trimming its size, the company intends to focus more on high margin businesses including enterprise class server and storage markets. Moreover, by selling assets which are not doing well and have limited growth potential, the company will be able to mobilize resources to the fast-growing areas of the cloud such as software defined networks (SDN) and converged and hyper-converged infrastructure. This will also help it to better compete with players like Oracle, Cisco and NetApp.
- ▲ The spin-off of Enterprise Services business and merger of the same with Computer Sciences has opened new avenues of growth for the combined entity as well as has unlocked value for Hewlett Packard Enterprise's shareholders. The deal has combined Computer Sciences' strength in insurance, healthcare and financial services with Hewlett Packard Enterprise's expertise in fields such as transportation, pharma, technology, media and telecom. Post-merger, the combined entity — DXC Technology — has become the world's second-largest IT services company after Accenture plc, generating revenues of approximately \$21 billion annually.
- ▲ Hewlett Packard Enterprise has been pursuing acquisitions to focus more on high-margin hybrid IT models that leverage on-premises and cloud-computing power. Last year's acquisitions of Cray and MapR strengthened its capabilities in high-performance computing and data-analytics platforms. In 2018, Hewlett Packard Enterprise acquired five businesses mainly focused on expanding its footprint in the hybrid IT models. We believe the company's focus on hybrid IT model will drive growth in the long run. Some other notable acquisitions by Hewlett Packard Enterprise in the hybrid IT space are SimpliVity and Cloud Technology Partners.
- ▲ Hewlett Packard Enterprise views Artificial Intelligence (AI), Industrial Internet of Things (IIoT), and distributed computing as the next major markets. Therefore, the company in 2018 decided to invest \$4 billion through 2022 to enhance its capabilities across the aforementioned space. Hewlett Packard Enterprise has linked these businesses to its fast-growing networking business arm — Aruba Networks. The strategy would also help Hewlett Packard Enterprise diversify its business from server and hardware storage markets. Notably, server and hardware storage markets have been witnessing stagnant growth for the past several quarters as more and more organizations are shifting to cloud computing due to their cost-effectiveness and anywhere accessibility features.
- ▲ Hewlett Packard Enterprise can be considered as a below-average leveraged company as its current total debt to total capital ratio of 0.35 is significantly lower than the industry average of 0.62. Its debt (long-term including current maturities) has been stable at approximately \$14 billion for the past four fiscal years. Though its low cash balance in comparison with debt is a concern, the company's strong cash-flow generation capabilities have helped it serve financial obligations efficiently. As of Apr 3, 2020, Hewlett Packard Enterprise had cash and equivalents of \$5.13 billion and has generated \$2.65 billion of operating cash flow in the trailing 12 months. Moreover, its times interest earned ratio of 9.8 is higher than the industry average of 8.7, signifying the company's ability to generate enough operating income to service its financial obligations without any problems.
- ▲ Hewlett Packard Enterprise's strong operating cash flow has helped it return cash through regular quarterly dividend payment and share repurchases. In the trailing 12 months, the company has generated \$2.65 billion of operating cash flow and distributed approximately \$603 million in dividend payments. In fiscal 2019, the company generated \$4 billion of operating cash flow and returned \$2.85 billion to shareholders. Share repurchases and dividend payments are good way of returning cash to investors while boosting the company's earnings. The company completed its plan to return \$7 billion to shareholders in the form of share repurchases and dividends over fiscal years 2018 and 2019.

Hewlett Packard's efforts to shift focus to higher margin offerings like Intelligent Edge and Aruba Central Hyperconverged Infrastructure are expected to drive its bottom-line results in the long-run.

Reasons To Sell:

- ▼ Hewlett Packard Enterprise is facing weaker server demand due to macroeconomic uncertainties. The company is witnessing demand and supply disruptions for its servers due to the coronavirus outbreak in China, one of its biggest markets. Capacity constraint in the North American facility is also impacting server-component supply. Furthermore, organizations are pushing back their big and expensive technology products due to a slowdown in global economic growth. Additionally, more and more organizations continue to shift to cloud computing owing to their maintenance-free and cost effectiveness compared with standalone servers.
- ▼ The acquisition of EMC by Dell has posed new challenges for Hewlett Packard Enterprise. With the acquisition, Dell has become one of the major players in the cloud services and data storage market. EMC Corporation (stylized as EMC) offers data storage, information security, virtualization, analytics, cloud computing and other products and services that enable businesses to store, manage, protect, and analyze data. VMware is its subsidiary that focuses on cloud and virtualization software and services for its parent company. Therefore, the acquisition of EMC along with its privately-controlled structure will provide Dell an unmatched scale, strength and flexibility to deepen its relationships with customers of all sizes.
- ▼ Hewlett Packard Enterprise's market share and revenues necessarily depend on client relationships and the number of contracts it secures. This, along with the limited scope for product differentiation, makes the renegotiation of large contracts extremely important. Competition from bigger companies is a major concern. Hewlett Packard Enterprise has to deal with strong competition at each of its business segments on the basis of technology, innovation, price, quality, reliability, etc. The company's Hybrid IT segment is pitted against IBM, Dell, Cisco and Microsoft. Its Financial Services business faces competition from captive financing companies, mainly IBM Global Financing, as well as banks and other financial institutions. Such intense competition across the business segments naturally increases pricing pressure, which may have a negative impact on the company's profitability.
- ▼ Usually, more than 60% of Hewlett Packard Enterprise's total revenues come from businesses outside the United States. An economic condition, which impacts the foreign currency exchange rates, results in transaction exposure, inducing fluctuation in profits. The U.S. dollar value being stronger in comparison to other currencies, the top line of the company is likely to be negatively impacted over the next few quarters.
- ▼ The United States and China's tit-for-tat trade war is a major threat to the company. Further, longer sales cycles, which are stretching the time to close certain deals is a major overhang. Execution challenges faced by the company in Intelligent Edge segment around Aruba sales are hurting its top-line growth.

Weaker server demand due to macroeconomic uncertainties, supply constraint, and ongoing shift to cloud computing is likely to continue hurting Hewlett Packard's near-term results.

Last Earnings Report

Hewlett Packard Q2 Earnings & Revenues Miss Estimates

Hewlett Packard delivered second-quarter fiscal 2020 non-GAAP earnings of 22 cents per share, which missed the Zacks Consensus Estimate by 29%. The reported figure also came in lower than the year-ago number of 42 cents.

Revenues of \$6 billion were down 16% from the prior-year quarter and 15% in constant currency, primarily due to supply chain constraints and delays in customer acceptance, which resulted in high levels of backlog, particularly in Compute, HPC & MCS, and Storage. The figure missed the Zacks Consensus Estimate by 7.2%.

Additionally, the company withdrew its third quarter and fiscal 2020 outlook due to coronavirus-led uncertainty.

Quarter Ending **04/2020**

Report Date	May 21, 2020
Sales Surprise	-7.21%
EPS Surprise	-29.03%
Quarterly EPS	0.22
Annual EPS (TTM)	1.60

Quarterly Details

Segment-wise, the company registered sales contraction across all its businesses. The Compute division's sales decreased 19% year over year to \$2.6 billion, thanks to component-supply disruptions.

Apart from the Compute segment, HPE registered sales declines across its Storage and Financial Services businesses. Revenues from Storage business fell 16% year on year to \$1.1 billion. However, Nimble Services revenues grew 20% year over year, which was a breather. Financial Service revenues were down 5% year over year to \$833 million.

Moreover, year-over-year revenue decline across the HPC & MCS, Intelligent Edge, and A&PS segments also added to the company's woes. HPC & MCS revenues declined 18% year over year to \$589 million. Revenues at the Intelligent Edge division fell 2% to \$665 million during the quarter. A&PS division's sales declined 8% year over year to \$297 million.

Operating Results

Non-GAAP gross margin of 32% contracted 20 basis points (bps) on a year-over-year basis.

HPE's non-GAAP operating profit fell 42.4% year over year to \$365 million. Non-GAAP operating margin contracted 280 bps, year over year, to 6.1%, primarily due to high transformation costs.

Balance Sheet and Cash Flow

The company ended the fiscal second quarter with \$5.13 billion in cash and cash equivalents compared with the \$3.17 billion recorded at the end of first quarter.

During the reported period, Hewlett Packard Enterprise generated \$100 million of cash from operational activities. Free cash flow was negative \$402 million in the quarter.

Additionally, the company repurchased shares worth \$151 million and paid out \$154 million as dividends.

Moreover, the company also approved a cost optimization plan to be implemented through fiscal year 2022, including changes to the company's workforce, real estate model and business process improvements. Hewlett Packard expects at least \$1 billion in savings by fiscal year 2022-end. In order to achieve this level of cost savings, the company plans cash funding payments between \$1 billion and \$1.3 billion over the next three years.

Recent News

On Jun 23, Hewlett Packard introduces new HPE GreenLake Cloud Services that will deliver an agile, lower cost, and consistent cloud experience everywhere for organizations.

On Jun 22, Hewlett Packard unveils five new return-to-work solutions to help organizations accelerate recovery in wake of COVID-19.

On Jun 16, Hewlett Packard unleashes a SaaS-based offering – HPE Edge Orchestrator. The solution would enable telcos to deploy innovative new edge computing services to customers via IT infrastructure located at the edge of telco networks or on customer premises.

On Jun 10, Hewlett Packard announced that it has made advancements to HPE Primera and HPE Nimble Storage solutions, including an AI-driven, self-healing and self-optimized system that delivers real-time autonomous operations.

On Jun 1, Hewlett Packard's enterprise networking brand, Aruba, introduced a series of workplace solutions to ease the constantly changing work environment in the wake of the coronavirus. The solutions address three common scenarios that the workforce is facing — returning to workplaces, working from home and different office operations.

On May 27, Hewlett Packard announced that it is expanding the Aruba Instant On product suite with a new series of switches that enable small businesses to leverage a unified, high-speed network that is easy to setup, manage and maintain.

On May 11, Hewlett Packard announced the collaboration of Aruba ClearPass Policy Manager with Microsoft endpoint protection platforms to deliver advanced enterprise cyberattack protection. ClearPass will be able to control access to critical network resources based on endpoint security intelligence provided by Microsoft. This will reduce the risk posed by vulnerable network connections.

On Apr 02, Hewlett Packard announced a series of initiatives in the face of the coronavirus outbreak, including a powerful virtual desktop infrastructure (VDI) solution and flexible payment options for the VDI offerings. The Moonshot will come with the new HPE ProLiant m750 Server Blade and improve performance by more than 70% while consuming 25% less power than the previous generation.

On Mar 31, Hewlett Packard launched the Open Distributed Infrastructure Management program along with an enterprise offering to complement the initiative, in collaboration with Intel. The initiative aims to improve the management of large-scale geographically distributed physical infrastructure deployments. This move highlights the company's leadership in open 5G technologies through open source innovation. The initiative is backed by AMI, Apstra, Red Hat, Tech Mahindra and World Wide Technology.

On Jan 30, Hewlett Packard announced regular quarterly cash dividend of 12 cents per share to be payable on Apr 1 to the shareholders of record date as of Mar 11.

On Jan 28, Aruba, a subsidiary of Hewlett Packard, revealed that the United States Department of Defense Education Activity upgraded its network, leveraging Aruba's wireless and security solutions to deliver secure Wi-Fi for students and faculty in 164 schools worldwide.

On Jan 21, Aruba, a subsidiary of Hewlett Packard, announced that Black Fire Innovation, a collaborative effort between Caesars Entertainment and the University of Nevada, will rollout Aruba's infrastructure in its technology incubation hub to enable the next generation of retail, entertainment and hospitality experiences.

On the same day, Hewlett Packard was selected to provide crucial AI and high-performance computing infrastructure to Zenuity to develop next-generation autonomous driving systems.

Valuation

Hewlett Packard shares lost 42.8% YTD and 39% over the trailing 12-month period. Stocks in the Zacks sub-industry have decreased 15% while the Zacks Computer & Technology sector is up 15% in the year-to-date period. Over the past year, while the Zacks sub-industry has decreased 15.6%, the sector gained 27.5%.

The S&P 500 Index has plunged 1.1% year to date while has gained 7.3% in the past year.

The stock is currently trading at 6.55X forward 12-month earnings, which compares to 9.91X for the Zacks sub-industry, 26.29X for the Zacks sector and 22.7X for the S&P 500 index.

Over the past three years, the stock has traded as high as 13.94X and as low as 4.33X with a 3-year median of 9.58X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$9.50 price target reflects 6.88X forward 12-month earnings.

The table below shows summary valuation data for HPE

Valuation Multiples - HPE					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	6.55	9.91	26.29	22.70
	3-Year High	13.94	11.90	26.29	22.70
	3-Year Low	4.33	8.08	16.97	15.15
	3-Year Median	9.58	10.22	20.11	17.34
P/S F12M	Current	0.45	1.26	3.94	3.54
	3-Year High	1.01	1.87	3.94	3.54
	3-Year Low	0.36	1.21	2.61	2.76
	3-Year Median	0.72	1.54	3.18	3.16
EV/EBITDA TTM	Current	3.30	7.20	13.99	11.71
	3-Year High	13.35	9.74	13.99	12.81
	3-Year Low	3.29	6.70	8.93	9.05
	3-Year Median	4.50	8.40	11.50	11.04

	3-Year Median	4.59	8.43	11.56	11.21
--	---------------	------	------	-------	-------

As of 07/07/2020

Industry Analysis Zacks Industry Rank: Bottom 31% (173 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Cisco Systems, Inc. (CSCO)	Neutral	3
International Business Machines Corporation (IBM)	Neutral	3
Juniper Networks, Inc. (JNPR)	Neutral	2
Microsoft Corporation (MSFT)	Neutral	3
NetApp, Inc. (NTAP)	Neutral	3
Nutanix Inc. (NTNX)	Neutral	3
Oracle Corporation (ORCL)	Neutral	3
Pure Storage, Inc. (PSTG)	Neutral	2

Industry Comparison Industry: Computer - Integrated Systems				Industry Peers		
	HPE	X Industry	S&P 500	CSCO	IBM	MSFT
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	3
VGM Score	A	-	-	A	B	B
Market Cap	11.65 B	435.49 M	21.64 B	192.66 B	104.40 B	1,579.25 B
# of Analysts	6	2.5	14	12	6	15
Dividend Yield	5.29%	0.00%	1.92%	3.16%	5.55%	0.98%
Value Score	A	-	-	B	A	C
Cash/Price	0.42	0.13	0.07	0.15	0.11	0.09
EV/EBITDA	4.24	-18.08	12.68	10.14	8.26	26.04
PEG Ratio	1.14	3.06	2.88	2.69	3.06	2.40
Price/Book (P/B)	0.72	3.00	3.01	5.40	5.19	13.79
Price/Cash Flow (P/CF)	2.39	6.64	11.66	13.26	5.95	32.78
P/E (F1)	7.35	39.07	21.31	14.51	10.42	33.39
Price/Sales (P/S)	0.43	1.54	2.30	3.81	1.36	11.39
Earnings Yield	13.78%	1.35%	4.43%	6.90%	9.60%	3.00%
Debt/Equity	0.71	0.17	0.76	0.32	2.62	0.61
Cash Flow (\$/share)	3.79	0.01	6.94	3.44	19.75	6.35
Growth Score	C	-	-	B	C	B
Hist. EPS Growth (3-5 yrs)	-3.21%	-0.85%	10.90%	9.03%	-3.16%	18.74%
Proj. EPS Growth (F1/F0)	-29.19%	-14.25%	-9.72%	1.48%	-11.89%	9.35%
Curr. Cash Flow Growth	-2.58%	2.09%	5.51%	6.95%	2.09%	19.70%
Hist. Cash Flow Growth (3-5 yrs)	-3.09%	-3.43%	8.55%	3.53%	-3.76%	11.99%
Current Ratio	0.89	1.57	1.30	1.59	0.96	2.90
Debt/Capital	41.54%	14.92%	44.46%	24.49%	72.36%	37.98%
Net Margin	-0.13%	-3.17%	10.62%	21.32%	11.78%	33.36%
Return on Equity	12.35%	-1.06%	15.75%	36.47%	57.55%	40.37%
Sales/Assets	0.52	0.85	0.55	0.54	0.50	0.49
Proj. Sales Growth (F1/F0)	-12.81%	0.00%	-2.57%	-5.13%	-5.40%	9.85%
Momentum Score	A	-	-	B	B	B
Daily Price Chg	-5.42%	0.00%	-1.54%	-1.70%	-2.17%	-1.16%
1 Week Price Chg	-0.95%	1.07%	3.66%	-1.47%	2.14%	5.06%
4 Week Price Chg	-17.70%	-2.08%	-6.66%	-5.04%	-10.84%	9.72%
12 Week Price Chg	-12.45%	0.00%	7.04%	6.66%	-5.11%	19.89%
52 Week Price Chg	-39.01%	-15.61%	-6.88%	-19.01%	-15.61%	52.61%
20 Day Average Volume	13,153,381	140,619	2,385,506	25,736,568	5,371,285	33,967,632
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	0.67%	0.00%	0.00%	0.04%	0.00%	0.23%
(F1) EPS Est 12 week change	-15.41%	-28.27%	-8.21%	3.17%	-10.60%	0.39%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	0.00%	0.00%	0.00%	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	A
Growth Score	C
Momentum Score	A
VGM Score	A

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

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.