

## Western Digital (WDC)

**\$69.21** (As of 01/14/20)

Price Target (6-12 Months): **\$58.00**

Long Term: 6-12 Months

**Zacks Recommendation:** Underperform

(Since: 01/13/20)

Prior Recommendation: Neutral

Short Term: 1-3 Months

**Zacks Rank:** (1-5)

**5-Strong Sell**

Zacks Style Scores:

VGM:F

Value: D

Growth: F

Momentum: C

### Summary

Western Digital is bearing the brunt of sluggish demand for client compute hard drives. Softness in NAND flash pricing trends, which has been on the decline on account of oversupply and weaker-than-expected growth in end-market demand is a major deterrent. Ballooning debt levels have also been plaguing the company for quite some time now. Moreover, stiff competition from peers like Seagate is likely to add to pricing pressure woes. Moreover, growing expenses on product development and portfolio expansion is likely to limit margin expansion at least in the near term. Nevertheless, improving demand for capacity enterprise drives is bolstering revenues from Data center devices and solutions segment, which holds promise. Notably, the company has mixed record of earnings surprises in recent quarters.

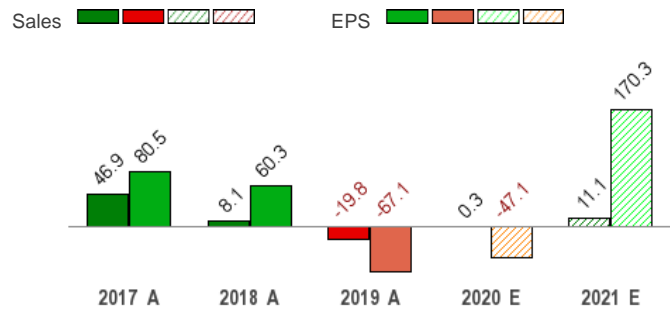
### Price, Consensus & Surprise



### Data Overview

|                            |   |
|----------------------------|---|
| 52 Week High-Low           | \$70.50 - \$35.02                         |
| 20 Day Average Volume (sh) | 4,499,455                                 |
| Market Cap                 | \$20.6 B                                  |
| YTD Price Change           | 9.0%                                      |
| Beta                       | 1.87                                      |
| Dividend / Div Yld         | \$2.00 / 2.9%                             |
| Industry                   | <a href="#">Computer- Storage Devices</a> |
| Zacks Industry Rank        | Bottom 29% (181 out of 254)               |

### Sales and EPS Growth Rates (Y/Y %)



|                           |            |
|---------------------------|------------|
| Last EPS Surprise         | 25.9%      |
| Last Sales Surprise       | 3.5%       |
| EPS F1 Est- 4 week change | 0.0%       |
| Expected Report Date      | 01/30/2020 |
| Earnings ESP              | 0.0%       |
| P/E TTM                   | 32.5       |
| P/E F1                    | 27.0       |
| PEG F1                    | 13.5       |
| P/S TTM                   | 1.3        |

### Sales Estimates (millions of \$)

|      | Q1      | Q2      | Q3      | Q4      | Annual*  |
|------|---------|---------|---------|---------|----------|
| 2021 | 4,539 E | 4,721 E | 4,532 E | 4,711 E | 18,456 E |
| 2020 | 4,040 A | 4,213 E | 4,067 E | 4,268 E | 16,618 E |
| 2019 | 5,028 A | 4,233 A | 3,674 A | 3,634 A | 16,569 A |

### EPS Estimates

|      | Q1       | Q2       | Q3       | Q4       | Annual*  |
|------|----------|----------|----------|----------|----------|
| 2021 | \$1.38 E | \$1.75 E | \$1.70 E | \$1.92 E | \$6.92 E |
| 2020 | \$0.34 A | \$0.56 E | \$0.66 E | \$0.95 E | \$2.56 E |
| 2019 | \$3.04 A | \$1.45 A | \$0.17 A | \$0.17 A | \$4.84 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 01/14/2020. The reports text is as of 01/15/2020.

## Overview

Western Digital Corporation (WDC), headquartered in Irvine, CA, is one of the largest hard disk drive (HDD) producers in the U.S. The company designs, develops, manufactures and markets a broad range of HDDs used in desktop PCs, servers, network-attached storage devices, video game consoles, digital video recorders and a host of other consumer electronic devices.

The acquisition of SanDisk enabled the company to venture into the flash drive storage technology space.

Western Digital sells hard drives of 3.5-inch and 2.5-inch form factors with storage capacities ranging from 30 gigabytes (GB) to 6 terabytes (TB).

The company's solid-state drives (SSDs) include 2.5-inch, mSATA, MO-297 and CompactFlash form factors, with storage capacities ranging from 128 megabytes (MB) to 400 GB.

The company also provides WD software applications, such as WD Photos and WD 2GO to the mobile computing market. The company's solutions are compatible with Apple's iOS, Google's Android and Microsoft's Windows Platforms.

The company markets its products and solutions through original equipment manufacturers (OEMs), distributors and retailers.

On Sep 19, 2019, Western Digital inked a deal with DDN, a supplier of big data storage worldwide, to divest its IntelliFlash business in a bid to optimize Data Center Systems portfolio. Per the deal, both the companies have agreed on a multi-year strategic partnership wherein DDN will buy Western Digital's HDD and SSD storage devices.

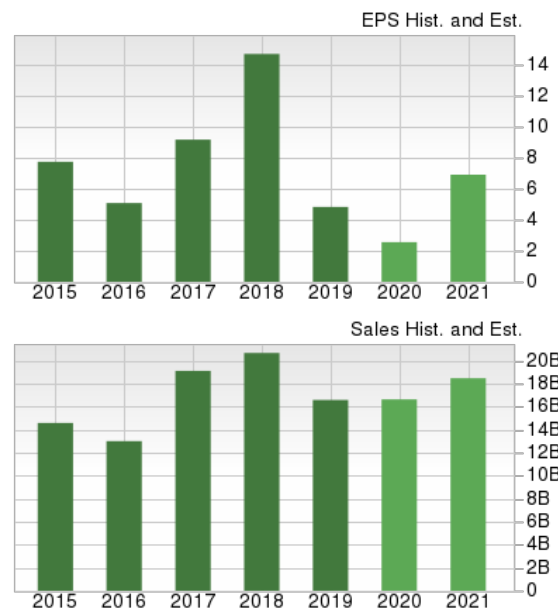
Western Digital mainly competes with companies like Intel, Micron, Samsung Electronics Co. Ltd., Seagate Technology and Toshiba Corporation.

The company competes with other hard drive manufacturers with offerings in the desktop, notebook, enterprise computer, consumer electronic devices and external storage markets.

Western Digital reported revenues of \$16.57 billion in the fiscal 2019, declining 19.8% over fiscal 2018.

Geographically, Americas, Asia, and Europe and Middle East and Africa (EMEA), contributed 26%, 19% and 55%, respectively to fiscal 2019 revenues.

During fiscal 2019, about 45% of total revenue came from its top 10 customers compared with 42% in fiscal 2018.



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## Reasons To Sell:

- ▼ Customer concentration is a major risk for Western Digital. During fiscal 2019, about 45% of total revenue came from its top 10 customers compared with 42% in fiscal 2018. The high level of customer concentration in a market with a few buyers and very low switching costs means that it is relatively easy to lose a customer. Moreover, the loss of a single order or customer affects the operating performance significantly. Therefore, the company is always under pressure to improve and maintain customer relations.
- ▼ Western Digital faces stiff competition from Seagate, Hitachi, Samsung and Intel in the storage market and from SSD pureplays such as SanDisk and Micron. The competition has resulted in a decline in the average selling price (ASP). Any decline in ASP will impact the results if shipments do not improve considerably.
- ▼ The disk drive market is highly competitive and has experienced drastic pricing pressure due to supply/demand volatility. In the near future, hard disk companies might be exposed to pressures as customers such as tablet PC makers choose flash cards for storage purposes instead of the customary hard disks. The situation may compel companies to cut hard disk prices, which may in turn hurt margins.
- ▼ In addition, ballooning debt levels have been troubling Western Digital over time. At the end of first-quarter fiscal 2020, net debt amounted to \$6.96 billion, down from \$7.1 billion reported in the previous quarter.
- ▼ Moreover, the company is trading at premium in terms of Price/Earnings (P/E). Western Digital currently has a trailing 12-month P/E ratio of 60.71. This level compares unfavorably with what the industry witnessed in the last year. Additionally, the ratio is higher than the average level of 13.74 and is near the high end of the valuation range in this period. Consequently, the valuation looks slightly stretched from P/E perspective.

Customer concentration, leveraged balance sheet and stiff competition from other major storage players remain major concerns limiting the growth prospects of Western Digital.

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## Risks

- Western Digital has been active on the acquisition front. The Amplidata, sTec, Inc., Velobit, Inc. Arkeia Software Solutions and Virident Systems Inc. acquisitions have not only strengthened its small-to-medium sized business solutions but also expanded its SSD product portfolio. These strategic takeovers are expected to provide the company with a competitive edge. The acquisition of SanDisk has opened new avenues of growth for Western Digital and will help it boost market traction in the newer storage technology – SSD. The merger will lead to economies of scale, lower costs, greater market reach and acquisitions of new technologies, among other synergies. The company will also be able to offer competitive solutions in cloud-based computing, which has taken over digital storage solution space over the past couple of years. Notably, after completing the SanDisk acquisition, Western Digital posted year-over-year revenue growth for the first time in the past seven quarters.
  - With the acquisition of SanDisk, Western Digital has forayed into NAND products. NAND flash chips are critical for portable electronic devices. The improving prices for NAND chips make us optimistic about the company's near-term performance. As per various sources, NAND prices have improved primarily due to a better product mix optimization and stronger-than-expected demand for PCs, servers and mobiles. This can be further substantiated by the fact that HP, during its latest earnings conference, has hinted that there may be a shortage of DRAM and Flash memory chips. Any shortage in supply will push prices up, thereby boosting Western Digital's near-term results. Furthermore, the company is expected to benefit from strong demand for NAND flash memory chips, which is used in smartphones and tablets. Driven by new tablet products and greater adoption of solid state drive (SSD), total demand in the NAND flash memory industry could surpass manufacturing capacity, leading to a periodic shortage and higher pricing in the near term.
  - Prominent storage players, like Western Digital have been expanding into the SSD storage market due to the decline in the PC market. SSDs are faster and more energy efficient than traditional hard drives. They also occupy less space making them more suitable for mobile computing devices. The emergence of thinner laptops and tablets over the past few years has created an ideal market for SSDs, which are therefore entering the higher end of the market. SSDs are also being used in servers due to the reduction in latency, which in turn facilitates faster response to real-time applications. E-Commerce and financial enterprises need quicker response time and thus data centers serving these clients are opting for SSDs. The secular growth of digital data, modest growth in the TAM and higher demand for storage will remain the growth catalysts for storage in general and especially for SSDs. This is what led TechNavio to project enterprise SSD market to grow at a CAGR of 17% during 2016–2020. The SSD segment's growth potential is a major positive for Western Digital because this could offset the losses stemming from the secular decline in the PC market, which does not necessarily use SSDs.
  - The company is expected to get good mileage from its cloud-based business. Cloud-based storage has become the order of the day. Consumers are increasingly using software like Google Drive, Microsoft Skydrive, Dropbox and iCloud, which provide the convenience of accessing content through different gadgets such as smartphones, tablets and personal computers. The access to content on multiple devices is possible because the data is stored in the cloud. This in turn is pressuring the cloud servers, resulting in a growing need to make them more efficient. For this purpose, Western Digital is developing drives filled with helium that consume 23% less power while increasing the storage capacity by 40%. The company has expanded its My Cloud solutions with My Cloud EX4, a broader portfolio of network attached storage (NAS) hard drives. My Cloud EX4 enables users to manage huge volumes of digital data, which in turn helps them to store, organize and secure photos, videos, music and important documents from computers and mobile devices. My Cloud EX4 will help the company meet growing business needs with improved flexibility and security, and can be accessed through iOS and Android operating systems allowing users to access their files via smartphones or tablets. Given the massive increase in cloud activity, the company is expected to find a number of takers for these products.
  - PCs remain the biggest users of HDDs and Western Digital still derives the bulk of its revenues from these devices. Per Gartner's preliminary data, PC shipments in the fourth quarter of 2019 inched up 2.3% year over year to 70.6 million units. Going by the IDC report, shipment rose 4.8% on a year-over-year basis and totaled 71.8 million in the period under review. An improving trend in PC shipments favors business prospects of Western Digital, which continues to depend substantially on PC sales.
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## Last Earnings Report

### Western Digital Surpasses Q1 Earnings & Revenues Estimates

Western Digital reported first-quarter fiscal 2020 non-GAAP earnings of 34 cents per share, which beat the Zacks Consensus Estimate of 27 cents. However, the figure declined from earnings of \$3.04 reported in the year-ago quarter.

Revenues of \$4.040 billion surpassed the Zacks Consensus Estimate of \$3.938 billion and improved 11% sequentially. However, the figure declined 20% year over year.

Uncertain macroeconomic environment and softness in NAND flash pricing trends adversely impacted year-over-year results. Moreover, decline in the client HDD and flash mobile applications affected revenues.

Quarter Ending **09/2019**

| Report Date      | Oct 30, 2019 |
|------------------|--------------|
| Sales Surprise   | 3.54%        |
| EPS Surprise     | 25.93%       |
| Quarterly EPS    | 0.34         |
| Annual EPS (TTM) | 2.13         |

### Segment Revenue Details

Client devices (40% of total revenues) declined 39% year over year and came in at \$1.616 billion. The figure was up 1% sequentially. Sluggish demand across smartphone negatively impacted mobile embedded results. Meanwhile, management noted that decline in revenues from Client HDD and softness in flash pricing hurt the segment results.

Client solutions (22.1%) slumped 4% year over year to \$892 million, primarily due to decline in hard drive TAM. However, the figure increased 18% sequentially.

Notably, the company continues to bear the brunt of unfavorable NAND flash pricing, which is currently on the decline thanks to oversupply and weaker-than-expected growth in end-market demand.

Data center devices and solutions (37.9%) improved 6% year over year to \$1.532 billion, driven by rising demand witnessed for capacity enterprise drives. Moreover, the figure was up 20% sequentially.

### Other Metrics

The company shipped 29.3 million HDDs at an average selling price (ASP) of \$81. The reported shipments were lower than the year-ago figure of 34.1 million.

On quarter-over-quarter basis, HDD Exabytes shipments improved 23% and Flash exabytes shipments increased 9%. Total exabytes sales (excluding non-memory products) advanced 22% sequentially.

Considering revenues by product group, HDD revenues (59.6% of total revenues) declined 3.4% from the year-ago quarter to reach \$2.408 billion. Flash revenues (40.4%) fell 35.6% from the year-ago quarter to reach \$1.632 billion.

ASP/Gigabytes (excluding non-memory products) was flat sequentially.

### Margins

Non-GAAP gross margin of 24.8% declined from the year-ago figure of 38% but expanded 60 bps sequentially.

The year-over-year decline can be attributed to softness in Flash pricing. Notably, non-GAAP HDD and Flash gross margins came in at 28.5% and 19.3%, compared with 32.1% and 43.8% reported in the year-ago quarter, respectively.

Non-GAAP operating expenses declined 6.5% from the year-ago quarter to \$767 million. Management remains focused on undertaking strict spending measures.

Non-GAAP operating income came in at \$235 million, compared with the year-ago figure of \$1.091 billion.

The company reported non-GAAP operating margin of 5.8% in the quarter, which declined from the year-ago figure of 21.7%.

### Balance Sheet & Cash Flow

As of Oct 4, 2019, cash and cash equivalents were \$3.248 billion, down from \$3.455 billion reported at the end of the previous quarter.

Total debt (including current portion) was \$10.21 billion, down from \$10.52 billion at the end of the previous quarter.

Western Digital generated \$253 million in cash from operations compared with \$169 million reported in the previous quarter.

Free cash flow came in at \$294 million compared with (\$179) million in the prior quarter.

During the quarter, the company paid out dividends worth \$147 million. On Aug 7, 2019, Western Digital's board of directors approved a cash dividend of 50 cents per share payable Oct 22, 2019.

### Guidance

For second-quarter fiscal 2020, revenues are expected to be in the range of \$4.1-\$4.3 billion (mid-point of \$4.2 billion).

Non-GAAP gross margin is anticipated to come in at 25-26%.

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Non-GAAP operating expenses are expected between \$750 million and \$770 million. Interest and other expenses are estimated approximately at \$85 million.

Management projects non-GAAP earnings between 45 cents and 65 cents per share.

From the Flash industry perspective, Western Digital revised estimates for bit supply growth at around low to 30% range in calendar 2020.

*Note: The EPS data mentioned in the text of this section differs from the rest of report due to the difference in calculation or consideration of one-time items.*

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## Recent News

On **Jan 6, 2020**, Western Digital announced that it will unveil new product innovations in its storage solutions at CES 2020. The company will also demonstrate high capacity, sleek and portable SSD prototype.

On **Dec 20, 2019**, Western Digital announced that it has begun shipping high-capacity HDD samples to enterprise OEMs and hyperscale customers worldwide. They include 20TB Ultrastar DC HC650 SMR HDDs and 18TB Ultrastar DC HC550 CMR HDDs.

On **Nov 20, 2019**, Western Digital completed the divestitures of its IntelliFlash business to DDN. The move is likely to aid Western Digital optimize its Data Center Systems portfolio.

On **Nov 14, 2019**, Western Digital announced quarterly cash dividend of 50 cents per share, payable on Jan 21, 2020 to shareholders on record as on Jan 3, 2020.

On **Nov 5, 2019**, Western Digital announced that it has formed a strategic alliance with lowRISC, Google and a coalition of partners in support of OpenTitan.

On **Oct 14, 2019**, Western Digital's SanDisk rolled out smart photo manager, ibi capable of 1TB of storage at an MSRP of \$129.99.

## Valuation

Western Digital shares are up 36.6% in the past six-month period and 90.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and Zacks Computer & Technology sector are up 19.6% and 15.3%, respectively, in the past six-month period, respectively. Over the past year, the Zacks sub-industry is up 28.2%, while the sector is up 34.9%.

The S&P 500 index is up 10.9% in the past six-month period and 27.3% in the past year.

The stock is currently trading at 14.04X forward 12-month earnings, which compares to 16.99X for the Zacks sub-industry, 22.93X for the Zacks sector and 19X for the S&P 500 index.

Over the past five years, the stock has traded as high as 30.07X and as low as 3.89X, with a 5-year median of 10.05X. Our Underperform recommendation indicates that the stock will perform worse than the market. Our \$58 price target reflects 11.77X forward 12-month earnings.

The table below shows summary valuation data for WDC

| Valuation Multiples - WDC |               |       |              |        |         |
|---------------------------|---------------|-------|--------------|--------|---------|
|                           |               | Stock | Sub-Industry | Sector | S&P 500 |
| P/E F12M                  | Current       | 14.04 | 16.99        | 22.93  | 19      |
|                           | 5-Year High   | 30.07 | 16.99        | 22.93  | 19.34   |
|                           | 5-Year Low    | 3.89  | 10.16        | 16.87  | 15.17   |
|                           | 5-Year Median | 10.05 | 12.16        | 19.24  | 17.44   |
| P/S F12M                  | Current       | 1.17  | 1.14         | 3.7    | 3.52    |
|                           | 5-Year High   | 1.67  | 1.58         | 3.7    | 3.52    |
|                           | 5-Year Low    | 0.57  | 0.84         | 2.3    | 2.54    |
|                           | 5-Year Median | 1.08  | 1.22         | 3.01   | 3       |
| EV/EBITDA TTM             | Current       | 9.29  | 10.81        | 12.41  | 12.12   |
|                           | 5-Year High   | 9.47  | 10.81        | 12.6   | 12.86   |
|                           | 5-Year Low    | 1.80  | 3.01         | 7.68   | 8.48    |
|                           | 5-Year Median | 5     | 5.66         | 10.52  | 10.67   |

As of 01/14/2020

## Industry Analysis Zacks Industry Rank: Bottom 29% (181 out of 254)



## Top Peers

|                              |              |
|------------------------------|--------------|
| Intel Corporation (INTC)     | Neutral      |
| Micron Technology, Inc. (MU) | Neutral      |
| Netlist, Inc. (NLST)         | Neutral      |
| NetApp, Inc. (NTAP)          | Neutral      |
| Pure Storage, Inc. (PSTG)    | Neutral      |
| Qumu Corporation (QUMU)      | Neutral      |
| Seagate Technology PLC (STX) | Neutral      |
| Teradata Corporation (TDC)   | Underperform |

| Industry Comparison Industry: Computer- Storage Devices |                  |            |           | Industry Peers |              |             |
|---|------------------|------------|-----------|----------------|--------------|-------------|
|   | WDC Underperform | X Industry | S&P 500   | MU Neutral     | NTAP Neutral | STX Neutral |
| <b>VGM Score</b>  | <b>F</b>         | -          | -         | <b>D</b>       | <b>B</b>     | <b>B</b>    |
| Market Cap  | 20.58 B          | 370.71 M   | 24.31 B   | 63.74 B        | 14.56 B      | 15.97 B     |
| # of Analysts   | 7                | 7          | 13        | 7              | 9            | 8           |
| Dividend Yield  | 2.89%            | 0.00%      | 1.76%     | 0.00%          | 3.01%        | 4.28%       |
| <b>Value Score</b>                                      | <b>D</b>         | -          | -         | <b>B</b>       | <b>B</b>     | <b>B</b>    |
| Cash/Price  | 0.16             | 0.18       | 0.04      | 0.12           | 0.21         | 0.11        |
| EV/EBITDA   | 13.43            | 8.57       | 14.08     | 4.89           | 8.68         | 8.57        |
| PEG Ratio   | 13.52            | 3.44       | 2.06      | NA             | 1.25         | 10.35       |
| Price/Book (P/B)  | 2.14             | 9.02       | 3.33      | 1.75           | 27.16        | 9.02        |
| Price/Cash Flow (P/CF)                                  | 6.82             | 12.71      | 13.62     | 5.06           | 12.71        | 8.53        |
| P/E (F1)  | 27.04            | 16.41      | 18.86     | 24.10          | 14.82        | 12.52       |
| Price/Sales (P/S)                                       | 1.32             | 1.57       | 2.65      | 3.09           | 2.53         | 1.60        |
| Earnings Yield  | 3.70%            | 4.63%      | 5.27%     | 4.16%          | 6.74%        | 8.00%       |
| Debt/Equity   | 1.04             | 0.37       | 0.72      | 0.16           | 2.14         | 2.34        |
| Cash Flow (\$/share)                                    | 10.15            | 0.42       | 6.94      | 11.36          | 5.02         | 7.12        |
| <b>Growth Score</b>                                     | <b>F</b>         | -          | -         | <b>D</b>       | <b>C</b>     | <b>C</b>    |
| Hist. EPS Growth (3-5 yrs)                              | -5.11%           | 1.83%      | 10.56%    | 68.56%         | 23.42%       | 8.77%       |
| Proj. EPS Growth (F1/F0)                                | -47.05%          | 1.65%      | 7.52%     | -62.41%        | -4.82%       | 0.73%       |
| Curr. Cash Flow Growth                                  | -53.72%          | -3.92%     | 14.88%    | -35.35%        | 21.12%       | -13.19%     |
| Hist. Cash Flow Growth (3-5 yrs)                        | -1.49%           | -0.23%     | 9.00%     | 15.84%         | 2.57%        | -6.14%      |
| Current Ratio   | 1.98             | 1.45       | 1.23      | 2.56           | 1.31         | 1.58        |
| Debt/Capital  | 51.01%           | 41.09%     | 42.99%    | 13.70%         | 68.11%       | 70.05%      |
| Net Margin  | -9.89%           | 0.51%      | 11.14%    | 17.01%         | 17.20%       | 17.66%      |
| Return on Equity  | 3.28%            | 5.88%      | 17.16%    | 11.36%         | 95.04%       | 61.26%      |
| Sales/Assets  | 0.58             | 0.91       | 0.55      | 0.43           | 0.71         | 1.14        |
| Proj. Sales Growth (F1/F0)                              | 0.29%            | 0.29%      | 4.18%     | -13.28%        | -8.09%       | 0.32%       |
| <b>Momentum Score</b>                                   | <b>C</b>         | -          | -         | <b>F</b>       | <b>C</b>     | <b>C</b>    |
| Daily Price Chg   | 0.12%            | -0.02%     | 0.08%     | 0.12%          | -0.51%       | -0.34%      |
| 1 Week Price Chg  | 5.15%            | 2.07%      | 0.39%     | 3.92%          | 2.32%        | 1.82%       |
| 4 Week Price Chg  | 20.91%           | 2.72%      | 1.93%     | 8.53%          | 0.50%        | 2.72%       |
| 12 Week Price Chg                                       | 17.58%           | -0.13%     | 6.50%     | 28.80%         | 15.59%       | 8.81%       |
| 52 Week Price Chg                                       | 83.68%           | 3.48%      | 22.56%    | 69.23%         | 2.11%        | 53.29%      |
| 20 Day Average Volume                                   | 4,499,455        | 160,146    | 1,571,506 | 22,600,964     | 1,556,288    | 1,785,226   |
| (F1) EPS Est 1 week change                              | 0.00%            | 0.00%      | 0.00%     | 0.00%          | 0.00%        | 0.00%       |
| (F1) EPS Est 4 week change                              | 0.00%            | 0.00%      | 0.00%     | -2.58%         | 0.00%        | 0.00%       |
| (F1) EPS Est 12 week change                             | -9.56%           | 1.09%      | -0.52%    | -9.78%         | 7.01%        | 4.41%       |
| (Q1) EPS Est Mthly Chg                                  | 0.00%            | 0.00%      | 0.00%     | -16.20%        | 0.00%        | 0.00%       |



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## 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.

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### 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    | <b>D</b> |
| Growth Score   | <b>F</b> |
| Momentum Score | <b>C</b> |
| VGM Score      | <b>F</b> |

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.

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### Disclosures

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