

## Aspen Technology, Inc. (AZPN)

**\$107.04** (As of 06/10/20)

Price Target (6-12 Months): **\$112.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Neutral**

(Since: 12/30/19)

Prior Recommendation: Outperform

Short Term: 1-3 Months

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

**4-Sell**

Zacks Style Scores:

VGM:D

Value: F

Growth: C

Momentum: A

### Summary

Aspen Technology is expected to benefit from robust adoption of its Asset Performance Management and Aspen Mtell suite. Moreover, the Mnuco and Sabisu acquisitions are anticipated to strengthen Aspen's offerings with embedded AI capabilities and enhance customer experience. A diverse product portfolio and loyal customer base are significant barriers for competitors, which is a positive. Furthermore, the growing volume of professional service engagements holds promise. However, COVID-19-induced supply chain disruptions are likely to affect renewals and dampen revenue growth. Markedly, the company has reduced 2020 guidance owing to the coronavirus pandemic. Also, increasing investments on product development are expected to put pressure on margins. Notably, shares of Aspen Technology have underperformed the industry in the year-to-date period.

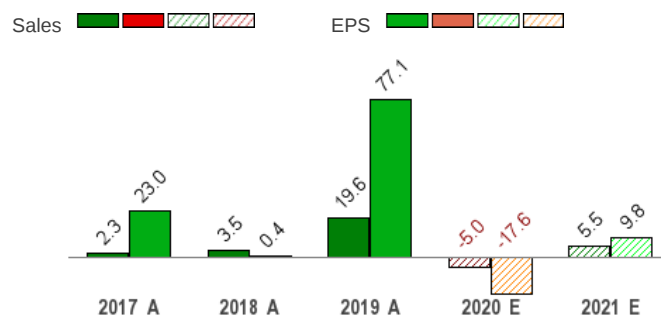
### Price, Consensus & Surprise



### Data Overview

|                            |                                     |
|----------------------------|-------------------------------------|
| 52 Week High-Low           | <b>\$142.89 - \$73.07</b>           |
| 20 Day Average Volume (sh) | <b>537,674</b>                      |
| Market Cap                 | <b>\$7.2 B</b>                      |
| YTD Price Change           | <b>-11.5%</b>                       |
| Beta                       | <b>1.29</b>                         |
| Dividend / Div Yld         | <b>\$0.00 / 0.0%</b>                |
| Industry                   | <a href="#">Computer - Software</a> |
| Zacks Industry Rank        | <b>Bottom 45% (139 out of 252)</b>  |

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



|                           |                   |
|---------------------------|-------------------|
| Last EPS Surprise         | <b>-10.8%</b>     |
| Last Sales Surprise       | <b>-3.6%</b>      |
| EPS F1 Est- 4 week change | <b>0.0%</b>       |
| Expected Report Date      | <b>08/05/2020</b> |
| Earnings ESP              | <b>0.0%</b>       |

### Sales Estimates (millions of \$)

|      | Q1    | Q2    | Q3    | Q4    | Annual* |
|------|-------|-------|-------|-------|---------|
| 2021 | 135 E | 132 E | 143 E | 185 E | 599 E   |
| 2020 | 134 A | 125 A | 132 A | 177 E | 568 E   |
| 2019 | 114 A | 140 A | 148 A | 196 A | 598 A   |

### EPS Estimates

|      | Q1       | Q2       | Q3       | Q4       | Annual*  |
|------|----------|----------|----------|----------|----------|
| 2021 | \$0.77 E | \$0.74 E | \$0.86 E | \$1.31 E | \$3.70 E |
| 2020 | \$0.79 A | \$0.66 A | \$0.74 A | \$1.18 E | \$3.37 E |
| 2019 | \$0.64 A | \$0.92 A | \$0.96 A | \$1.59 A | \$4.09 A |

\*Quarterly figures may not add up to annual.

|         |             |
|---------|-------------|
| P/E TTM | <b>28.3</b> |
| P/E F1  | <b>31.8</b> |
| PEG F1  | <b>16.2</b> |
| P/S TTM | <b>12.3</b> |

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 06/10/2020. The reports text is as of 06/11/2020.

## Overview

Bedford, MA-based Aspen Technology, Inc. provides asset optimization software solutions.

The company facilitates the processes of asset management for various industries, consequently, enabling the clientele to improve the efficiency of assets.

The company provides aspenONE Asset Performance Management (APM) suite of solutions which comprise Aspen Mtell, Aspen Fidelis Reliability, Aspen ProMV, Aspen Column Analytics, and Aspen Root Cause Analytics

Aspen Mtell enables customers to augment asset utilization by providing a robust set of solutions which supervise health of the machinery, identify failure symptoms in real time, analyze the root-cause of the problem and provide valuable feedback to avoid equipment failure.

Notably, Aspen Technology acquired Mtelligence Corporation (also recognized as Mtell) in October 2016, with an aim to strengthen its asset performance optimization software suite with robust prescriptive and predictive maintenance capabilities.

The subscription based aspenONE software is classified into three suites, namely Engineering, Manufacturing & Supply Chain, and Asset Performance Management ("APM").

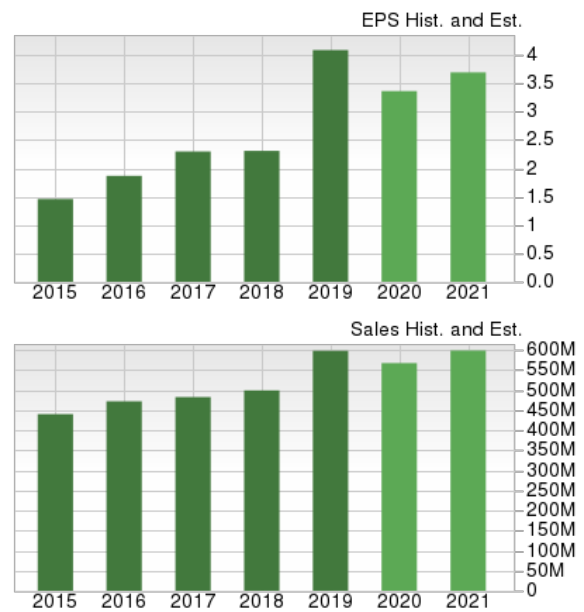
In fiscal 2019, the company generated revenues of \$598.3 million.

Aspen Technology reports in two segments, namely subscription and software, and services.

The subscription and software segment (95.2% of total fiscal 2019 revenues) accounts for fixed-term licenses and other related support services.

Meanwhile, the services segment (4.8%) comprises training and professional services.

The company has customer base of approximately 2,300 organizations. With approximately 1,600 employees as of Jun 30, 2019, the company has offices in 32 countries, across the United States, Europe, Asia-Pacific, and other locations.



---

## Reasons To Buy:

▲ Aspen Technology's revenue growth continues to be driven by high demand for its asset optimization and management solutions. This can be attributed to its solution which aids in optimizing process manufacturing by supporting real-time decision making, predicting equipment failure, and providing the ability to forecast and simulate potential actions. Asset management solution not only assists manufacturers understand the operating conditions of their assets but also to take appropriate action to increase their productivity in an efficient way. These solutions help in expanding operating margins of process manufacturers. Per P&S Intelligence data, enterprise asset management market is projected to hit \$8.7 billion by 2024, witnessing a CAGR of 13.5%, between 2019 and 2024. Based on its portfolio strength, we believe that the company is well poised to gain from this robust growth prospect going forward.

Robust adoption driven by high demand for asset optimization and management solutions, sticky customer base and a strong pipeline for new business bookings are positives.

▲ Aspen Technology has witnessed accelerated adoption of its solutions that has driven top-line growth over the years. Its revenues witnessed CAGR of almost 8% from fiscal 2015 through fiscal 2019. The company provides end-to-end asset management and optimization solutions that are in high demand. The depth in its product portfolio has been the primary growth driver in recent times. The company's impressive top-line performance bolstered investors' confidence and the stock has outperformed the industry over the past year. Rapid adoption of cloud-based solutions, integration with big data analytics, ongoing favorable trends in penetration of IoT, and increasing investment on software are expected to be major factors driving growth.

▲ Aspen Technology has a strong pipeline for new business bookings, and continues to innovate & improve operations. The company's diversified product portfolio and sticky customer base impose significant barriers to entry. Subscription based model comprising long-term contracts averaging five years with high-end customers ensure that the revenues keep growing. Further, AspenTech has streamlined business to strengthen core-operations in the long run. Its continuous efforts to improve its Asset Performance Management (APM) bode well. The APM suite continues to gain traction, with the company signing significant deals globally. The company also witnessed pipeline expansion, which is a positive.

▲ The company has also been active on the acquisition front. Buyouts have aided growth by expanding product portfolio and adding competence. During first-quarter fiscal 2020, the company announced acquisition of Mnubo, which offers custom AI and analytics infrastructure solutions for IoT. The company is also anticipated to gain from Sabisu buyout, which provides enterprise workflow and visualization solutions. In February 2018, Aspen Technology acquired Apex Optimisation, for their unique Generic Dynamic Optimisation Technology ("GDOT") to enable the company align Advanced Process Control ("APC") with Planning & Scheduling, helping unified production optimization for petrochemical companies and refineries in complex industrial environments. In December 2017, Aspen Technology acquired RtTech Software, in a bid to leverage its Industrial Internet of Things (IIoT) cloud and edge technology to bolster the capabilities of APM Solutions. Similarly, Mtell (October 2016), The Fidelis Group (June 2016), Hyprotech (March 2002) and Petrolsoft (June 2000) have aided the company not only to explore new avenues but also improve the existing solutions with advanced technologies.

---

---

## Reasons To Sell:

- ▼ Increasing competition in the market for asset optimization software could lead to pricing pressure and affect Aspen Technology's margins. AspenTech's offerings compete with similar solutions from SAP, IBM and Oracle, to mention a few, which is a concern. Notably, the pricing and functionalities of Maximo offering of IBM, Oracle Enterprise Asset Management solution, SAP Enterprise Asset Management (EAM) suite, among other comparable offerings are likely to have an impact on adoption rate of AspenTech's solutions. The company's market share could be challenged further by new entrants. This might compel the company resort to competitive pricing to maintain as well as capture further market share. Moreover, consolidating applications market is fuelling competition in the software sector, which is likely to limit company's growth prospects. Additionally, major oil industry downturn and steep drop in oil prices, is likely to dampen growth at least in the near term.
- ▼ Aspen Technology continues to acquire a large number of companies. While this improves revenue opportunities, business mix and profitability, it also adds to integration risks. Moreover, frequent acquisitions are a distraction for management, which could impact organic growth, going forward. Notably, goodwill and net intangible assets comprised 15.8% of total assets as of Mar 31, 2020.
- ▼ Aspen Technology derives significant portion of revenues from outside the United States (63.2% of total revenues in fiscal 2019), subjecting the company to exchange rate volatility. Unfavorable movement in exchange rates of foreign currencies like euro, pound sterling, Canadian Dollar and Japanese Yen, related to the U.S. dollar can adversely impact financial performance and undermine its growth potential to some extent.
- ▼ Aspen Technology has a leveraged balance sheet, which adds to the risk of investing in the company. As of Mar 31, 2020, net debt amounted to \$278 million. Moreover, total debt to total capital of 55% is higher than the industry's figure of 42.9%. Further, times interest earned currently is at 23.7X, down from the prior quarter's level of 27.7X. The high debt level can not only jeopardize its ability to sustain share buybacks but also pursue accretive acquisitions. Markedly, Aspen Technology has paused share buybacks and drawn down \$100 million from revolving credit facility, to maintain near-term liquidity and financial flexibility amid the COVID-19 crisis.

Intensifying competition in the asset management market, continuing investments to stay afloat and integration risks are major concerns.

## Last Earnings Report

### Aspen Technology Misses Q3 Earnings Estimates, Lowers View

Aspen Technology reported third-quarter fiscal 2020 non-GAAP earnings of 74 cents per share that missed the Zacks Consensus Estimate by 10.8% and declined 22.9% on a year-over-year basis.

Revenues of \$132 million declined 10.8% from the year-ago quarter's figure. The decline was caused by lower year-over-year bookings.

Total bookings for the reported quarter came in at \$126.7 million, down 20.8% year over year. The company has attributed the decline to unfavorable timing of renewals compared with year-ago quarter.

Moreover, due to uncertainties prevailing in the market due to COVID-19, the company witnessed a decline in demand and slowdown in customer payments in the last few weeks of the fiscal third quarter.

#### Quarter in Detail

License revenues (59.5% of revenues) declined 20.2% year over year to \$78.6 million due to decline in bookings related to unfavorable timing of renewals.

Maintenance revenues (34.2%) increased 7.9% year over year to approximately \$45.2 million. The company attributed the upside to growth of its base of arrangements, which include maintenance, being recognized on a ratable basis.

Services and other revenues (6.3%) improved 7.9% from the year-ago quarter's figure to \$8.2 million due to growing volume of professional service engagements.

Annual spend increased 9.3% year over year to \$575 million.

#### Margins

Gross margin contracted 220 basis points (bps) on a year-over-year basis to approximately 88.1%.

Total operating expenses climbed 11.7% from the year-ago quarter's figure to \$70.1 million due to increase in research & development and general & administrative expenses.

Non-GAAP operating income of \$55.3 million declined 29.3% from the year-ago quarter's figure. Non-GAAP operating margin was 41.9% compared with 52.9% in the year-ago quarter.

#### Cash Flow

The company generated \$81.4 million cash from operations during the quarter compared with \$46.9 million in the previous quarter. Free cash flow came in at \$81.2 million compared with \$48.1 million in the previous quarter.

#### Fiscal 2020 Guidance

Due to COVID-19 induced uncertainties, the company has lowered its guidance for fiscal 2020.

Aspen Technology expects revenues in the range of \$550-\$582 million compared with the previous range of \$575-\$615 million.

Non-GAAP net income is anticipated in the range of \$3.16-\$3.48 per share compared with previous guidance of \$3.43-\$3.84

Non-GAAP operating income is projected in the range of \$249-\$277 million compared with the previous guidance of \$272-\$307 million.

Free cash flow is now anticipated in the range of \$230-\$260 million compared with the prior range of \$260-\$270 million.

Quarter Ending **03/2020**

| Report Date      | May 06, 2020 |
|------------------|--------------|
| Sales Surprise   | -3.57%       |
| EPS Surprise     | -10.84%      |
| Quarterly EPS    | 0.74         |
| Annual EPS (TTM) | 3.78         |

---

## Recent News

On Jun 3, Aspen Technology announced partnership with Hargrove, provider of automation services in a bid to offer engineering services for a "Digital Twin" to aid plant owners and operators to enhance uptime in a secure manner and boost operating margins.

On May 11, Aspen Technology announced that its Mtell and ProMV asset performance management ("APM") solutions have been selected by the chemical company China National BlueStar to accelerate digital transformation.

---

## Valuation

Aspen Technology shares are down 11.4% in the year-to-date period and 13.5% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 15.4% and 9.1% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are up 29.2% and 25.2%, respectively.

The S&P 500 index is down 0.5% in the year-to-date period but up 11.3% in the past year.

The stock is currently trading at 29.1X forward 12-month earnings, which compares to 30.69X for the Zacks sub-industry, 25.34X for the Zacks sector and 23.18X for the S&P 500 index.

Over the past five years, the stock has traded as high as 46.4X and as low as 19.07X, with a 5-year median of 33.16X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$112 price target reflects 30.45X forward 12-month earnings.

The table below shows summary valuation data for AZPN

| Valuation Multiples - AZPN |               |       |              |        |         |
|----------------------------|---------------|-------|--------------|--------|---------|
|                            |               | Stock | Sub-Industry | Sector | S&P 500 |
| P/E F12M                   | Current       | 29.1  | 30.69        | 25.34  | 23.18   |
|                            | 5-Year High   | 46.4  | 30.69        | 25.34  | 2.18    |
|                            | 5-Year Low    | 19.07 | 18.62        | 16.72  | 15.23   |
|                            | 5-Year Median | 33.16 | 24.99        | 19.28  | 17.49   |
| P/S F12M                   | Current       | 12.11 | 7.6          | 3.86   | 3.6     |
|                            | 5-Year High   | 17.11 | 7.6          | 3.86   | 3.6     |
|                            | 5-Year Low    | 5.15  | 3.88         | 2.32   | 2.53    |
|                            | 5-Year Median | 9.53  | 5.57         | 3.11   | 3.02    |
| EV/Sales TTM               | Current       | 12.57 | 7.8          | 4.36   | 3.14    |
|                            | 5-Year High   | 16.38 | 8.11         | 4.43   | 3.46    |
|                            | 5-Year Low    | 4.98  | 3.19         | 2.59   | 2.14    |
|                            | 5-Year Median | 9.69  | 5.75         | 3.59   | 2.82    |

As of 06/10/2020

---

## Industry Analysis Zacks Industry Rank: Bottom 45% (139 out of 252)



## Top Peers

| Company (Ticker)                       | Rec          | Rank |
|----------------------------------------|--------------|------|
| Avid Technology, Inc. (AVID)           | Neutral      | 4    |
| Cornerstone OnDemand, Inc. (CSOD)      | Neutral      | 3    |
| CommVault Systems, Inc. (CVLT)         | Neutral      | 3    |
| Bottomline Technologies, Inc. (EPAY)   | Neutral      | 4    |
| Manhattan Associates, Inc. (MANH)      | Neutral      | 3    |
| Magic Software Enterprises Ltd. (MGIC) | Neutral      | 3    |
| Progress Software Corporation (PRGS)   | Neutral      | 3    |
| MicroStrategy Incorporated (MSTR)      | Underperform | 5    |

| Industry Comparison Industry: Computer - Software |         |            |           | Industry Peers |          |         |
|---------------------------------------------------|---------|------------|-----------|----------------|----------|---------|
|                                                   | AZPN    | X Industry | S&P 500   | CSOD           | CVLT     | MANH    |
| Zacks Recommendation (Long Term)                  | Neutral | -          | -         | Neutral        | Neutral  | Neutral |
| Zacks Rank (Short Term)                           | 4       | -          | -         | 3              | 3        | 3       |
| VGM Score                                         | D       | -          | -         | C              | C        | D       |
| Market Cap                                        | 7.24 B  | 1.84 B     | 22.63 B   | 2.52 B         | 1.84 B   | 5.53 B  |
| # of Analysts                                     | 5       | 4          | 14        | 3              | 4        | 4       |
| Dividend Yield                                    | 0.00%   | 0.00%      | 1.87%     | 0.00%          | 0.00%    | 0.00%   |
| Value Score                                       | F       | -          | -         | D              | C        | F       |
| Cash/Price                                        | 0.03    | 0.08       | 0.06      | 0.17           | 0.18     | 0.01    |
| EV/EBITDA                                         | 23.04   | 21.23      | 12.91     | 36.67          | 68.03    | 44.21   |
| PEG Ratio                                         | 15.53   | 2.78       | 3.07      | 0.71           | 3.29     | NA      |
| Price/Book (P/B)                                  | 18.79   | 5.62       | 3.09      | 13.89          | 4.48     | 43.94   |
| Price/Cash Flow (P/CF)                            | 26.78   | 23.44      | 12.15     | 19.52          | 33.24    | 59.26   |
| P/E (F1)                                          | 30.44   | 33.52      | 22.10     | 28.62          | 32.90    | 56.47   |
| Price/Sales (P/S)                                 | 12.33   | 5.00       | 2.40      | 4.29           | 2.75     | 8.87    |
| Earnings Yield                                    | 3.15%   | 2.80%      | 4.30%     | 3.49%          | 3.03%    | 1.77%   |
| Debt/Equity                                       | 0.85    | 0.16       | 0.76      | 1.98           | 0.02     | 0.24    |
| Cash Flow (\$/share)                              | 4.00    | 1.18       | 7.01      | 2.02           | 1.19     | 1.47    |
| Growth Score                                      | C       | -          | -         | B              | B        | C       |
| Hist. EPS Growth (3-5 yrs)                        | 22.22%  | 9.72%      | 10.87%    | NA             | 75.80%   | -0.06%  |
| Proj. EPS Growth (F1/F0)                          | -17.70% | -3.27%     | -10.71%   | 17.95%         | -17.07%  | -11.35% |
| Curr. Cash Flow Growth                            | 75.58%  | 8.84%      | 5.46%     | 297.95%        | -4.90%   | -17.20% |
| Hist. Cash Flow Growth (3-5 yrs)                  | 23.92%  | 8.71%      | 8.55%     | 44.91%         | 8.51%    | 1.20%   |
| Current Ratio                                     | 2.29    | 1.54       | 1.29      | 1.61           | 1.56     | 1.23    |
| Debt/Capital                                      | 46.08%  | 24.82%     | 44.75%    | 66.42%         | 2.09%    | 19.30%  |
| Net Margin                                        | 39.54%  | 7.18%      | 10.54%    | -2.45%         | -0.84%   | 14.01%  |
| Return on Equity                                  | 60.82%  | 11.53%     | 16.08%    | 40.09%         | 5.00%    | 58.45%  |
| Sales/Assets                                      | 0.57    | 0.63       | 0.55      | 0.65           | 0.81     | 1.69    |
| Proj. Sales Growth (F1/F0)                        | -5.14%  | 1.86%      | -2.59%    | 6.94%          | -2.76%   | -10.44% |
| Momentum Score                                    | A       | -          | -         | D              | C        | B       |
| Daily Price Chg                                   | -1.15%  | 0.00%      | -1.68%    | -3.04%         | -3.21%   | -2.81%  |
| 1 Week Price Chg                                  | 4.43%   | 3.07%      | 7.51%     | 7.92%          | -1.31%   | -1.10%  |
| 4 Week Price Chg                                  | 14.46%  | 14.85%     | 16.99%    | 16.99%         | 11.72%   | 24.89%  |
| 12 Week Price Chg                                 | 20.38%  | 45.41%     | 37.11%    | 65.30%         | 42.15%   | 132.64% |
| 52 Week Price Chg                                 | -13.50% | 14.00%     | 0.02%     | -25.36%        | -17.31%  | 26.16%  |
| 20 Day Average Volume                             | 537,674 | 113,947    | 2,620,901 | 640,060        | 427,178  | 617,204 |
| (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%     | -51.25%        | -73.16%  | 0.00%   |
| (F1) EPS Est 12 week change                       | -7.45%  | -8.76%     | -15.86%   | -54.78%        | -81.87%  | 3.45%   |
| (Q1) EPS Est Mthly Chg                            | 0.00%   | 0.00%      | 0.00%     | -20.18%        | -264.29% | 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    | F |
| Growth Score   | C |
| Momentum Score | A |
| VGM Score      | D |

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.