

## Badger Meter, Inc. (BMI)

**\$104.82** (As of 01/08/21)

Price Target (6-12 Months): **\$110.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Neutral**

(Since: 01/04/21)

Prior Recommendation: Outperform

Short Term: 1-3 Months

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

**4-Sell**

Zacks Style Scores:

VGM:B

Value: D

Growth: A

Momentum: B

## Summary

With its ORION Cellular endpoints, along with communication technologies, Badger Meter is focused on creating robust digital solutions to operationalize real-time data into actionable insights. The company's strong cash generation and balance sheet allow it to execute its capital allocation strategy. This includes investments to grow its business organically and through acquisitions. It continues to expand its smart water offerings by integrating advanced technologies in instrumentation. However, Badger Meter's inability to obtain adequate supplies of raw materials and parts for its products at favorable prices is expected to hurt its business. High research and development costs for technology-driven products are further expected to hurt the bottom line. A sluggish industrial end market due to the pandemic is another headwind.

## Price, Consensus & Surprise



## Data Overview

|                                |                                 |
|--------------------------------|---------------------------------|
| 52-Week High-Low               | <b>\$105.22 - \$41.50</b>       |
| 20-Day Average Volume (Shares) | <b>166,961</b>                  |
| Market Cap                     | <b>\$3.1 B</b>                  |
| Year-To-Date Price Change      | <b>11.4%</b>                    |
| Beta                           | <b>0.77</b>                     |
| Dividend / Dividend Yield      | <b>\$0.72 / 0.7%</b>            |
| Industry                       | <b>Instruments - Control</b>    |
| Zacks Industry Rank            | <b>Top 46% (117 out of 253)</b> |

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



|                               |                   |
|-------------------------------|-------------------|
| Last EPS Surprise             | <b>27.5%</b>      |
| Last Sales Surprise           | <b>9.5%</b>       |
| EPS F1 Estimate 4-Week Change | <b>-0.3%</b>      |
| Expected Report Date          | <b>01/29/2021</b> |
| Earnings ESP                  | <b>0.0%</b>       |
| P/E TTM                       | <b>62.8</b>       |
| P/E F1                        | <b>55.2</b>       |
| PEG F1                        | <b>18.4</b>       |
| P/S TTM                       | <b>7.3</b>        |

## Sales Estimates (millions of \$)

|      | Q1    | Q2    | Q3    | Q4    | Annual* |
|------|-------|-------|-------|-------|---------|
| 2021 |       |       |       |       | 456 E   |
| 2020 | 109 A | 91 A  | 114 A | 111 E | 424 E   |
| 2019 | 105 A | 104 A | 109 A | 108 A | 425 A   |

## EPS Estimates

|      | Q1       | Q2       | Q3       | Q4       | Annual*  |
|------|----------|----------|----------|----------|----------|
| 2021 |          |          |          |          | \$1.91 E |
| 2020 | \$0.41 A | \$0.33 A | \$0.51 A | \$0.45 E | \$1.69 E |
| 2019 | \$0.37 A | \$0.39 A | \$0.44 A | \$0.42 A | \$1.61 A |

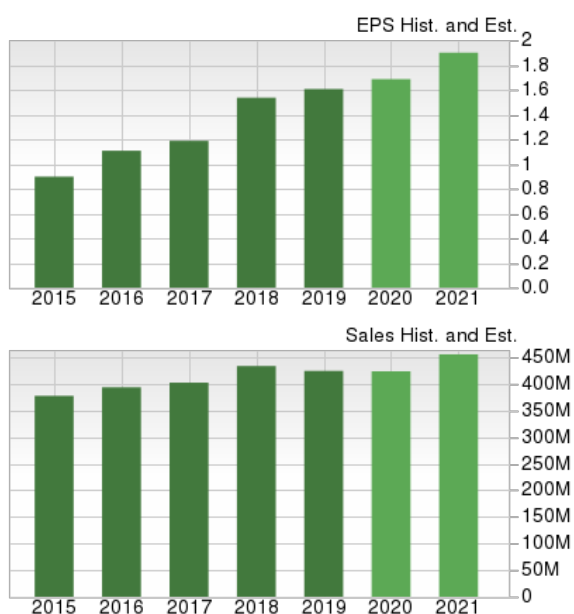
\*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 01/08/2021. The reports text is as of 01/11/2021.

## Overview

Incorporated in 1905 and headquartered in Milwaukee, WI, Badger Meter, Inc. provides flow measurement, control and communications solutions, serving water and gas utilities, municipalities and industrial customers worldwide. The company's products measure water, oil, chemicals, and other fluids, and are known for accuracy, long-lasting durability and for providing valuable and timely measurement data. The company offers BEACON advanced metering analytics, a secure cloud-hosted software suite that allows consumer engagement tools that permit end water customers to view and manage their water usage activity. It also provides ORION Migratable for automatic meter reading and ORION Cellular for infrastructure-free fixed network meter reading solution.

Badger Meter's product lines fall into two categories — sales of water meters, radios and related technologies to municipal water utilities (municipal water) and sales of meters, valves and other products for industrial applications in water, wastewater and other industries (flow instrumentation). The company's flow instrumentation products are used in various industries, such as water/wastewater, heating, ventilating and air conditioning, oil and gas, and chemical and petrochemical. Badger Meter estimates that more than 85% of its products are used in water related applications. Its products are sold throughout the world through employees, resellers and representatives. The company reports financial results under a single operating segment.



Source: Zacks Investment Research

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## Reasons To Buy:

- ▲ Badger Meter has acquired privately-held Analytical Technology, Inc. (“ATi”) for \$44 million in cash. Founded in 1992 and headquartered in Collegeville, PA, ATi is a leading provider and innovator of water quality monitoring solutions, as well as toxic and combustible gas detectors for municipal and industrial markets. In November 2020, Badger Meter acquired s::can GmbH, a leading provider of water quality monitoring systems, for €27 million. Notably, Badger Meter’s strong cash generation and balance sheet allow it to execute its capital allocation strategy. This includes investments to grow its business organically and through acquisitions. The combination of ATi’s electrochemical sensors and s::can’s optical water quality monitoring instruments provides Badger Meter with a comprehensive water quality monitoring solution. Badger Meter continues to expand its smart water offerings by integrating advanced technologies in instrumentation. This is likely to enhance the scope of valuable data for use by utilities and industrial customers.
- ▲ With its industry-leading ORION Cellular endpoints, along with communication and software technologies, Badger Meter is focused on creating robust digital solutions to operationalize real-time data into actionable insights. Its BEACON software-as-a-service offering facilitate to collect and analyze data within the distribution network to improve operational awareness. Management is optimistic about the company’s prospects, supported by a number of reasons like solid backlog and customer acceptance of its new products. It is poised to gain from strong order rates for innovative water solutions, including E-Series Ultrasonic meters and ORION Cellular LTE-M (Long-Term Evolution for Machines) radios. Badger Meter’s products are known for accuracy, durability and for providing valuable and timely measurement data. Its opportunities include Phyn — a joint venture between Belkin International and Uponor Corporation — which utilizes its D-Flow ultrasonic technology in a smart water monitoring system for residential use. Inclusion in AT&T’s Smart City Alliance, a framework created by AT&T allowed Badger Meter to explore new ways for its smart water solutions to join forces with industry-leading cellular networks.
- ▲ Net sales in the third quarter of 2020 improved 4.5% year over year to \$113.6 million due to a surge in manufacturing output with consistent demand post COVID-19-induced lockdown. Badger Meter witnessed a favorable mix of high-end products and services along with higher BEACON service revenues. Badger Meter is continuously prioritizing and enhancing its presence in select regional markets outside the United States that offer healthy growth potential. The company is likely to benefit from the launch of innovative products such as the 3-inch and 4-inch E-Series commercial meters and ORION LTE-M cellular radio endpoints. With smart alarms, pressure and temperature data, the products offer early detection of any anomaly in the system, thereby lowering maintenance and operating costs for utility firms. In addition, Badger Meter is likely to immensely benefit from a strong cash position driven by solid working capital management. The company exited the first nine quarters of 2020 with a robust free cash flow of \$19.1 million. Also, it generated \$73.7 million of net cash from operations compared with \$61.1 million in the prior-year quarter on the back of strong earnings conversion. Badger Meter aims to utilize this cash flow to reinvest in the business, both organically through R&D (research and development) and via strategic tuck-in acquisitions.
- ▲ Despite the slowdown of overall activity in end markets due to the pandemic, Badger Meter’s near-term outlook remains bullish. It had undertaken temporary cost-saving initiatives to ensure smooth functioning of its business operations. The company expects to witness solid backlog on the back of increasing orders in the upcoming quarters. Badger Meter is focused on investing in digital solutions that operationalize real-time data and utilize remote solutions to reduce overall costs and enhance efficiency. Moreover, with discretionary spend controls, Badger Meter continues to deliver critical products and services to customers during this hour of crisis. It is well positioned to emerge from this unprecedented calamity owing to robust liquidity position and strong bid pipeline. The company has \$125 million under revolving credit facility to fund capital allocation priorities. As of Sep 30, Badger Meter had \$93.9 million in cash and equivalents with no short-term debt. Although the times interest earned (TIE) ratio has declined sequentially, it has a dividend payout rate of 41.3%. The rate has relatively increased over the past quarters, indicating that the company is sharing more of its earnings with shareholders. It remains to be seen whether Badger Meter can maintain the momentum in the near future amid disruptions caused by the pandemic.

With its industry-leading ORION Cellular endpoints, along with communication and software technologies, Badger Meter is focused on creating robust digital solutions to operationalize real-time data into actionable insights.

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### Reasons To Sell:

- ▼ Competitive pressures in the marketplace for Badger Meter's products affect its position, leading to a loss of market share or a decrease in prices. The company's growth depends on its ability to develop technologically advanced products that meet appropriate industry standards. The inability to obtain adequate supplies of raw materials and parts for its products at favorable prices could hurt its business.
- ▼ Although, Badger Meter witnessed higher demand for new technology products and solutions like ORION Cellular LTE-M radios and ultrasonic meter technology, flow instrumentation declined 18% caused by a sluggish demand for industrial products across various industrial end markets, particularly due to the challenges posed by the pandemic.
- ▼ With the worldwide mayhem caused by the pandemic, Badger Meter's backlog volumes surged due to manufacturing disruptions and employee absenteeism in the last reported quarter. Factors like lower demand for industrial products and supply chain disruptions are expected to dent its profitability over the next few months. High R&D costs for technology-driven products are further expected to hurt the bottom line. Selling, administrative and R&D expenses have increased at a CAGR of 6.4% from 2010 to 2019.

Competitive pressures in the marketplace for Badger Meter's products affect its position, leading to a loss of market share or a decrease in prices.

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## Last Earnings Report

### Badger Meter Q3 Earnings Top Estimates, Revenues Rise

Badger Meter reported impressive third-quarter 2020 results, with net earnings and revenues increasing year over year.

#### Net Income

Quarterly net earnings for the reported quarter were \$14.9 million or 51 cents per share compared with \$12.7 million or 44 cents per share in the year-ago quarter. The year-over-year improvement can be primarily attributed to higher revenues. Further, the bottom line beat the Zacks Consensus Estimate by 11 cents.

#### Revenues

Quarterly net sales increased to \$113.6 million from \$108.6 million in the year-ago quarter. The 4.5% revenue growth was primarily due to a surge in manufacturing output with consistent demand post COVID-19-induced lockdown. Also, the company witnessed a favorable mix of high-end products and services along with higher BEACON Software as a Service revenues. The top line surpassed the consensus mark of \$104 million.

As the pandemic lockdown eased, municipal water sales rose 11% owing to backlog conversion and recovering orders. Also, the company continued to witness higher demand for and adoption of new technology products and solutions like ORION Cellular radios and ultrasonic meter technology, which contributed to the impressive sales growth in the reported quarter. However, flow instrumentation declined 18% year over year due to sluggish industrial end markets, particularly due to challenges posed by the COVID-19 outbreak.

#### Other Details

Gross profit was \$45 million, up 8% from \$41.7 million in the year-earlier quarter. Gross margin was 39.6%, up 120 basis points (bps) year over year. The upside was primarily driven by favorable sales mix and higher sales with prior-year non-recurring discrete warranty charge. Operating earnings were \$19.5 million or 17.2% of sales compared with respective tallies of \$16.4 million and 15.1% in the year-earlier quarter.

Selling, engineering and administration expenses were \$25.5 million compared with \$25.2 million in the prior-year quarter. The increase was primarily due to higher personnel costs. However, it was partially offset by lower travel and other pandemic-related expenses.

#### Cash Flow & Liquidity

During the first nine months of fiscal 2020, Badger Meter generated \$73.7 million of net cash from operations compared with \$61.1 million in the prior-year period, driven by strong earnings conversion. Free cash flow for the quarter was unchanged at \$19.1 million despite higher federal income tax payment. With a stable free cash flow, the company's performance was driven by a robust balance sheet position along with an effective working capital management. As of Sep 30, the company had \$93.9 million in cash and equivalents with no short-term debt.

#### Moving Forward

With the gradual stabilization of overall end-market activities post lockdowns, Badger Meter remains optimistic related to its near-term outlook. The Milwaukee, WI-based controls products manufacturer expects to witness solid backlog and bid pipeline on the back of increasing orders in the upcoming quarters. This will eventually help the company to ensure smooth functioning of business operations. Although a small portion of customers could face budget constraints with project deferrals, Badger Meter remains committed to delivering critical products and services to its diversified customer base during this hour of crisis.

The company is well poised to enable strategic, tuck-in mergers and acquisitions to augment offerings across global markets with a strong liquidity position. Badger Meter is focused on investing in digital solutions that operationalize real-time data and utilize remote solutions to reduce overall costs and enhance efficiency. For additional financial flexibility, the company has \$125 million under revolving credit facility to fund capital allocation priorities. Customer demand is anticipated to be the crux of product and technology roadmap, with competitive share and positioning. Continued R&D investments with inventory planning capabilities are likely to provide potential opportunities in the future.

| Quarter Ending   | 09/2020      |
|------------------|--------------|
| Report Date      | Oct 16, 2020 |
| Sales Surprise   | 9.50%        |
| EPS Surprise     | 27.50%       |
| Quarterly EPS    | 0.51         |
| Annual EPS (TTM) | 1.67         |

## Recent News

On Jan 8, 2021, Badger Meter announced that it acquired privately-held Analytical Technology, Inc. ("ATi") for \$44 million in cash. Founded in 1992 and headquartered in Collegeville, PA, ATi is a leading provider and innovator of water quality monitoring solutions, as well as toxic and combustible gas detectors for municipal and industrial markets. ATi specializes in the manufacture and distribution of water quality instruments based on electrochemical and optical sensors. Its technology is also used to detect toxic gasses used in water treatment and other applications. ATi's solutions, which generated revenues of about \$22 million in 2020, are deployed primarily in the United States and Europe. It offers configurable and low-power multi-parameter water monitoring solutions that can be used in a range of applications where monitoring is required.

On Nov 3, 2020, Badger Meter announced that it acquired s::can GmbH for €27 million in cash. Founded in 1999, Vienna, Austria-based s::can is a privately-held provider of water quality monitoring systems. The firm specializes in optical water quality sensing solutions that provide real-time measurement of a range of parameters. The addition of real-time water quality parameters to Badger Meter's core flow measurement, pressure and temperature sensing capabilities enhances the scope of data for municipalities to improve operational awareness.

## Valuation

Shares of Badger Meter are up 65% in the trailing 12-month period and up 70.8% in the past six months. Stocks in the Zacks sub-industry are up 10.3% in the past year and up 57.9% in the past six months. Stocks in the Zacks Computer and Technology sector are up 36.4% in the past year and up 26.1% in the past six months.

The S&P 500 Index is up 18.3% in the past year and up 22.1% in the past six months.

The stock is currently trading at 33.01X trailing 12-month EV/EBITDA, which compares to 16.2X for the Zacks sub-industry, 16.62X for the Zacks sector and 17.36X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 33.01X and as low as 12.03X, with a 5-year median of 16.32X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$110 price target reflects 2X forward 12-month earnings.

The table below shows summary valuation data for BMI

| Valuation Multiples - BMI |               |       |              |        |         |
|---------------------------|---------------|-------|--------------|--------|---------|
|                           |               | Stock | Sub-Industry | Sector | S&P 500 |
| EV/EBITDA TTM             | Current       | 33.01 | 16.2         | 16.62  | 17.36   |
|                           | 5-Year High   | 33.01 | 16.2         | 16.62  | 17.36   |
|                           | 5-Year Low    | 12.03 | 6.78         | 8.25   | 9.56    |
|                           | 5-Year Median | 16.32 | 11.47        | 12.1   | 13.22   |
| P/E F12M                  | Current       | 54.84 | 25.41        | 28.84  | 23.38   |
|                           | 5-Year High   | 54.84 | 25.41        | 28.84  | 23.79   |
|                           | 5-Year Low    | 23.3  | 12.28        | 16.94  | 15.3    |
|                           | 5-Year Median | 31.87 | 15.92        | 19.93  | 17.82   |
| P/S F12M                  | Current       | 6.69  | 2.95         | 4.89   | 4.56    |
|                           | 5-Year High   | 6.69  | 2.95         | 4.89   | 4.56    |
|                           | 5-Year Low    | 1.97  | 1.53         | 2.77   | 3.21    |
|                           | 5-Year Median | 3.28  | 2.08         | 3.47   | 3.67    |

As of 01/08/2021

Source: Zacks Investment Research

## Industry Analysis Zacks Industry Rank: Top 46% (117 out of 253)



Source: Zacks Investment Research

## Top Peers

| Company (Ticker)                        | Rec     | Rank |
|-----------------------------------------|---------|------|
| Allied Motion Technologies, Inc. (AMOT) | Neutral | 3    |
| Roper Technologies, Inc. (ROP)          | Neutral | 4    |
| Sensata Technologies Holding N.V. (ST)  | Neutral | 2    |
| Thermon Group Holdings, Inc. (THR)      | Neutral | 3    |
| Transcat, Inc. (TRNS)                   | Neutral | 3    |
| Watts Water Technologies, Inc. (WTS)    | Neutral | 3    |
| Woodward, Inc. (WWD)                    | Neutral | 3    |
| Xylem Inc. (XYL)                        | Neutral | 3    |

The positions listed should not be deemed a recommendation to buy, hold or sell.

| Industry Comparison Industry: Instruments - Control |         |            |           | Industry Peers |          |          |
|-----------------------------------------------------|---------|------------|-----------|----------------|----------|----------|
|                                                     | BMI     | X Industry | S&P 500   | AMOT           | THR      | TRNS     |
| Zacks Recommendation (Long Term)                    | Neutral | -          | -         | Neutral        | Neutral  | Neutral  |
| Zacks Rank (Short Term)                             | 4       | -          | -         | 3              | 3        | 3        |
| VGM Score                                           | B       | -          | -         | C              | B        | B        |
| Market Cap                                          | 3.05 B  | 490.03 M   | 27.18 B   | 490.03 M       | 581.98 M | 257.39 M |
| # of Analysts                                       | 2       | 3          | 13        | 2              | 1        | 3        |
| Dividend Yield                                      | 0.69%   | 0.00%      | 1.41%     | 0.24%          | 0.00%    | 0.00%    |
| Value Score                                         | D       | -          | -         | B              | B        | C        |
| Cash/Price                                          | 0.03    | 0.06       | 0.06      | 0.04           | 0.10     | 0.00     |
| EV/EBITDA                                           | 34.39   | 14.81      | 14.99     | 13.50          | 11.36    | 15.83    |
| PEG F1                                              | 18.19   | 2.91       | 2.65      | 2.91           | NA       | 5.17     |
| P/B                                                 | 8.68    | 3.66       | 3.77      | 3.64           | 1.62     | 3.67     |
| P/CF                                                | 42.78   | 20.24      | 14.38     | 14.63          | 10.50    | 17.35    |
| P/E F1                                              | 54.58   | 35.53      | 20.76     | 29.11          | 37.32    | 41.38    |
| P/S TTM                                             | 7.25    | 2.49       | 2.97      | 1.36           | 1.86     | 1.52     |
| Earnings Yield                                      | 1.81%   | 2.82%      | 4.68%     | 3.44%          | 2.68%    | 2.43%    |
| Debt/Equity                                         | 0.00    | 0.24       | 0.70      | 0.93           | 0.47     | 0.30     |
| Cash Flow (\$/share)                                | 2.45    | 2.22       | 6.93      | 3.43           | 1.67     | 2.00     |
| Growth Score                                        | A       | -          | -         | D              | B        | A        |
| Historical EPS Growth (3-5 Years)                   | 13.64%  | 13.07%     | 9.71%     | 17.05%         | 1.39%    | 15.68%   |
| Projected EPS Growth (F1/F0)                        | 12.72%  | 1.51%      | 12.21%    | 20.63%         | -37.33%  | -22.53%  |
| Current Cash Flow Growth                            | 3.00%   | -0.20%     | 5.22%     | 19.18%         | -22.68%  | 9.03%    |
| Historical Cash Flow Growth (3-5 Years)             | 8.54%   | 6.29%      | 8.33%     | 9.30%          | -1.48%   | 15.66%   |
| Current Ratio                                       | 3.87    | 3.87       | 1.38      | 2.68           | 3.91     | 2.20     |
| Debt/Capital                                        | 0.00%   | 21.14%     | 41.97%    | 48.07%         | 31.94%   | 22.81%   |
| Net Margin                                          | 11.53%  | 4.00%      | 10.40%    | 3.99%          | -0.22%   | 4.01%    |
| Return on Equity                                    | 14.28%  | 12.28%     | 15.20%    | 11.69%         | 2.87%    | 10.08%   |
| Sales/Assets                                        | 0.97    | 0.75       | 0.50      | 1.09           | 0.50     | 1.38     |
| Projected Sales Growth (F1/F0)                      | 7.53%   | -0.12%     | 5.91%     | 6.56%          | -28.62%  | -2.43%   |
| Momentum Score                                      | B       | -          | -         | B              | D        | C        |
| Daily Price Change                                  | 2.90%   | -0.05%     | 0.10%     | -4.47%         | -1.52%   | -0.92%   |
| 1-Week Price Change                                 | 0.37%   | 1.58%      | 1.16%     | 2.18%          | 0.19%    | 5.00%    |
| 4-Week Price Change                                 | 19.24%  | 7.11%      | 3.65%     | 2.72%          | 4.65%    | 0.76%    |
| 12-Week Price Change                                | 45.93%  | 21.15%     | 13.64%    | 20.40%         | 46.90%   | 21.90%   |
| 52-Week Price Change                                | 64.92%  | 10.18%     | 8.59%     | 4.84%          | -33.89%  | 10.78%   |
| 20-Day Average Volume (Shares)                      | 166,961 | 150,512    | 1,694,173 | 32,034         | 136,213  | 25,920   |
| EPS F1 Estimate 1-Week Change                       | 0.00%   | 0.00%      | 0.00%     | 0.00%          | 0.00%    | 0.00%    |
| EPS F1 Estimate 4-Week Change                       | -0.26%  | 0.00%      | 0.08%     | 0.00%          | 0.00%    | 0.00%    |
| EPS F1 Estimate 12-Week Change                      | 16.87%  | 4.82%      | 2.45%     | 1.17%          | 51.61%   | 2.87%    |
| EPS Q1 Estimate Monthly Change                      | NA%     | 0.00%      | 0.00%     | 0.00%          | 0.00%    | 0.00%    |

Source: Zacks Investment Research

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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 maintain a 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    | D |
| Growth Score   | A |
| Momentum Score | B |
| VGM Score      | 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

**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.

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## Additional Disclosure

This material represents an assessment of the market and economic environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. Forward-looking statements are subject to certain risks and uncertainties. Any statements that refer to expectations, projections or characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

**Returns quoted represent past performance which is no guarantee of future results.** Investment returns and principal value will fluctuate so that when shares are redeemed, they may be worth more or less than their original cost. Current performance may be higher or lower than the performance shown.

Investing involves risk; principal loss is possible. There is no guarantee that companies that can issue dividends will declare, continue to pay or increase dividends.

## Glossary of Terms and Definitions

**52-Week High-Low:** The range of the highest and lowest prices at which a stock has traded during the past year. This range is determined based on the stock's daily closing price which may differ from the intra-day high or low. Many investors use it as a technical indicator to determine a stock's current value and future price movement. The idea here is that if price breaks out from the 52-week range, in either direction, the momentum may continue in the same direction.

**20-Day Average Volume (Shares):** The average number of shares of a company traded in a day over the last 20 days. It is a direct indication of a security's overall liquidity. The higher the average daily trading volume, the easier it is to enter or exit the stock at a desired price with more buyers and sellers being available.

**Daily Price Change:** This is the percentage difference between a trading day's closing price and the prior trading day's closing price. This item is updated at 9 p.m. EST each day.

**1-Week Price Change:** This is the percentage change in a stock's closing price over the last 5 trading days. This change reflects the collective buying and selling sentiment over the 1-week period.

A strong weekly price increase for the stock, especially when accompanied by increased volume, is an indication of it gaining momentum.

**4-Week Price Change:** This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a medium-term price change metric and an indication of the stock gaining momentum.

**12-Week Price Change:** This is the percentage change of a stock's closing price over the last 60 trading days or past 12 weeks. Similar to 4-week price change, this is a medium-term price change metric. It shows whether a stock has been enjoying strong investor demand, or if it has been in consolidation, or distress over this period.

**52-Week Price Change:** This is the percentage change in a stock's closing price over the last 260 trading days or past 52 weeks. This long-term price change metric is a good reference point for investors. Some investors seek stocks with the best percentage price change over the last 52 weeks, expecting the momentum to continue.

**Market Cap:** The number of outstanding common shares of a company times its latest price per share. This figure represents a company's size, which indicates various characteristics, including price stability and risk, in which investors could be interested.

**Year-To-Date Price Change:** Change in a stock's daily closing price in the period of time beginning the first day of the current calendar year through to the previous trading day.

**# of Analysts:** Number of EPS estimates used in calculating the current-quarter consensus. These estimates come from the brokerage analysts tracking this stock. However, the number of such analysts tracking this stock may not match the number of estimates, as all brokerage analysts may not come up with an estimate or provide it to us.

**Beta:** A measure of risk commonly used to compare the volatility of a stock to the overall market. The S&P 500 Index is the base for calculating beta and carries a value of 1. A stock with beta below 1 is less risky than the market as a whole. And a stock with beta above 1 is riskier.

**Dividend:** The portion of earnings a company is expected to distribute to its common shareholders in the next 12 months for each share they own. Dividends are usually paid quarterly. Dividend payments reflect positively on a company and help maintain investors' trust. Investors typically find dividend-paying stocks appealing because the dividend adds to any market price appreciation to result in higher return on investment (ROI). Moreover, a steady or increasing dividend payment provides investors a cushion in a down market.

**Dividend Yield:** The ratio of a company's annual dividend to its share price. The annual dividend used in the ratio is calculated based on the most recent dividend paid by the company. Dividend yield is an estimate of the dividend-only return from a stock in the next 12 months. Since dividend itself doesn't change frequently, dividend yield usually changes with a stock's price movement. As a result, often an unusually high dividend yield is a result of weak stock price.

**S&P 500 Index:** The Standard & Poor's 500 (S&P 500) Index is an unmanaged group of securities considered to be representative of the stock market in general. It is a market-capitalization-weighted index of stocks of the 500 largest U.S. companies. Each stock's weight in the index is proportionate to its market value.

**Industry:** One of the 250+ groups that Zacks classifies all stocks into based on the nature of business. These groups are termed as expanded (aka "X") industries and map to their respective (economic) sectors; Zacks has 16 sectors.

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**Zacks Industry Rank:** The Zacks Industry Rank is determined by calculating the average Zacks Rank for all stocks in the industry and then assigning an ordinal rank to it. For example, an industry with an average Zacks Rank of 1.6 is better than an industry with an average Zacks Rank of 2.3. So, the industry with the better average Zacks Rank would get a better Zacks Industry Rank. If an industry has the best average Zacks Rank, it would be considered the top industry (1 out of 250+), which would place it at the top 1% of Zacks-ranked industries. Studies have shown that roughly half of a stock's price movement can be attributed to the industry group it belongs to. In fact, the top 50% of Zacks-ranked industries outperforms the bottom 50% by a factor of more than 2 to 1.

**Last EPS Surprise:** The percentage deviation of a company's last reported earnings per share from the Zacks Consensus Estimate. Companies with a positive earnings surprise are more likely to surprise again in the future (or miss again if they recently missed).

**Last Sales Surprise:** The percentage deviation of a company's last reported sales from the Zacks Consensus Estimate.

**Expected Report Date:** This is an estimated date of a company's next earnings release. The information originated or gathered by Zacks Investment Research from its information providers or publicly available sources is the basis of this estimate.

**Earnings ESP:** The Zacks Earnings ESP compares the Most Accurate Estimate to the Zacks Consensus Estimate for the yet-to-be reported quarter. The Most Accurate Estimate is the most recent version of the Zacks Consensus EPS Estimate. The idea here is that analysts revising their estimates closer to an earnings release have the latest information, which could potentially be more accurate than what they and others contributing to the consensus had predicted earlier. Thus, a positive or negative Earnings ESP reading theoretically indicates the likely deviation of the actual earnings from the consensus estimate. However, the model's predictive power is significant for positive ESP readings only. A positive Earnings ESP is a strong predictor of an earnings beat, particularly when combined with a Zacks Rank #1 (Strong Buy), #2 (Buy) or #3 (Hold). Our research shows that stocks with this combination produce a positive surprise nearly 70% of the time.

**Periods:**

**TTM:** Trailing 12 months. Using TTM figures is an effective way of analyzing the most-recent financial data in an annualized format that helps neutralize the effects of seasonality and other quarter-to-quarter variation.

**F1:** Current fiscal year. This period is used to analyze the estimates for the ongoing full fiscal year.

**F2:** Next fiscal year. This period is used to analyze the estimates for the next full fiscal year.

**F12M:** Forward 12 months. Using F12M figures is an effective way of analyzing the near-term (the following four unreported quarters) estimates in an annualized manner. Instead of typically representing estimates for the full fiscal year, which may not represent the nitty-gritty of each quarter, F12M figures suggest an all-inclusive annualized estimate for the following four quarters. The annualization helps neutralize the potential effects of seasonality and other quarter-to-quarter variations.

**P/E Ratio:** The price-to-earnings ratio measures a company's current market price per share relative to its earnings per share (EPS). Usually, the trailing-12-month (TTM) EPS, current-fiscal-year (F1) EPS estimate, or forward-12-month (F12M) EPS estimate is used as the denominator. In essence, this ratio shows what the market is willing to pay today for each dollar of EPS. In other words, this ratio gives a sense of what the relative value of the company is at the already reported level of earnings or at a future level of earnings.

It is one of the most widely-used multiples for determining the value of a company and helps comparing its valuation with that of a competitor, the industry group or a benchmark.

**PEG Ratio:** The price/earnings to growth ratio is a stock's P/E ratio using current fiscal year (F1) EPS estimate divided by its expected EPS growth rate over the coming 3 to 5 years. This ratio essentially determines a stock's value by factoring in the company's expected earnings growth and is thus believed to provide a more complete picture than just the P/E ratio, particularly for faster-growing companies.

**P/S Ratio:** The price-to-sales ratio is calculated as a company's current price per share divided by trailing 12 months (TTM) sales or revenues per share. This ratio shows what the market is willing to pay today for each dollar of TTM sales per share. The P/S ratio is at times the only valuation metric when the company has yet to become profitable.

**Cash/Price Ratio:** The cash-to-price ratio or Cash Yield is calculated as cash and marketable securities per share divided by the company's current share price. Like the earnings yield, which shows the anticipated yield (or return) on a stock from earnings for each dollar invested, the cash yield does the same, with cash being the source of return instead of earnings. For example, a cash/price ratio of 0.08 suggests a return of 8% or 8 cents for every \$1 investment.

**EV/EBITDA Ratio:** The EV/EBITDA ratio, also known as Enterprise Multiple, is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by EBITDA (earnings before interest, taxes, depreciation and amortization). Usually, trailing-12-month (TTM) or forward-12-month (F12M) EBITDA is used as the denominator.

**EV/Sales Ratio:** The enterprise value-to-sales ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by annual sales. It is an expansion of the P/S valuation, which uses market value instead of enterprise value. The EV/Sales ratio is perceived as more accurate than P/S, in part, because the market capitalization does not take a company's debt into account when valuing it.

**EV/CF Ratio:** The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

The EV/CF ratio is perceived as more accurate than the P/CF ratio, in part, because the market price does not take a company's debt into account when valuing it.

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**EV/FCF Ratio:** The enterprise value-to-free cash flow metric compares a company's enterprise value to its trailing-12-month (TTM) free cash flow (FCF). This metric is very similar to the EV/CF ratio, but is considered a more exact measure owing to the fact that it uses free cash flow, which subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding growth activities and payments to shareholders.

**P/EBITDA Ratio:** The P/EBITDA ratio is calculated as a company's per share market value divided by EBITDA (earnings before interest, taxes, depreciation, and amortization). This metric is very similar to the EV/EBITDA ratio, but is considered a little less exact measure as it uses market price, which does not take a company's debt into account. However, since EBITDA is often considered a proxy for cash income, the metric is used as a measure of what the market is willing to pay today for each dollar of the company's cash profitability in the trailing 12 months (TTM) or forward 12 months (F12M).

**P/B Ratio:** The price-to-book ratio is calculated as a company's current price per share divided by its book value (total assets – liabilities – preferred stocks) per share. In short, the book value is how much a company is worth. In other words, it reflects the total value of a company's assets that its common shareholders would receive if it were to be liquidated. So, the P/B ratio indicates whether you're paying higher or lower than what would remain if the company went bankrupt immediately. Investors typically use this metric to determine how a company's stock price stacks up to its intrinsic value.

**P/TB Ratio:** The price-to-tangible-book value ratio is calculated as the per share market value of a company divided by the value of its tangible assets (total assets – liabilities – preferred stocks – intangible assets) per share. Tangible book value is the same thing as book value except it excludes the value of intangible assets to get a step closer to the baseline value of the company.

**P/CF Ratio:** The price-to-cash flow ratio measures a company's per share market price relative to its trailing-12-month (TTM) operating cash flow per share. This metric is used to determine whether a company is undervalued or overvalued relative to another stock, industry or sector. And like the P/E ratio, a lower number is typically considered better from the value perspective.

One of the reasons why P/CF ratio is often preferred over P/E ratio is the fact that operating cash flow adds back non-cash expenses such as depreciation and amortization to net income. This feature helps valuing stocks that have positive cash flow but are not profitable because of large noncash charges.

**P/FCF Ratio:** The price-to-free cash flow ratio is an extension of P/CF ratio, which uses trailing-12-month (TTM) free cash flow per share instead of operating cash flow per share. This metric is considered a more exact measure than P/CF ratio, as free cash flow subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding activities that generate additional revenues.

**Earnings Yield:** The earnings yield is calculated as current fiscal year (F1) EPS estimate divided by the company's current share price. The ratio, which is the inverse of the P/E ratio, measures the anticipated yield (or return) from earnings for each dollar invested in a stock today.

For example, earnings yield for a stock, which is trading at \$35 and expected to earn \$3 per share in the current fiscal year (F1), would be 0.0857 ( $3/35 = 0.0857$ ) or 8.57%. In other words, for \$1 invested in the stock today, the yield from earnings is anticipated to be 8.57 cents.

Investors most commonly compare the earnings yield of a stock to that of a broad market index (such as the S&P 500) and prevailing interest rates, such as the current 10-year Treasury yield. Since bonds and stocks compete for investors' dollars, stock investors typically demand a higher yield for the extra risk they assume compared to investors of U.S. Treasury-backed securities that offer virtually risk-free returns. This additional return is referred to as the risk premium.

**Debt/Equity Ratio:** The debt-to-equity ratio is calculated as a company's total liabilities divided by its shareholder equity. This metric is used to gauge a company's financial leverage. In other words, it is a measure of the degree to which a company is financing its operations through debt versus its own funds. The higher the ratio, the higher the risk for shareholders.

However, this ratio is difficult to compare across industry groups where ideal amounts of debt vary. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-equity ratio should be compared with other companies in the same industry.

**Cash Flow (\$/share):** Cash flow per share is calculated as operating cash flow (after-tax earnings + depreciation + other non-cash charges) divided by common shares outstanding. It is used by many investors as a measure of a company's financial strength. Since cash flow per share takes into consideration a company's ability to generate cash by adding back non-cash expenses, it is regarded by some as a more accurate measure of a company's financial situation than earnings per share, which could be artificially deflated.

**Current Ratio:** The current ratio or liquidity ratio is a company's current assets divided by its current liabilities. It measures a company's ability to pay short-term obligations. A current ratio that is in line with the industry average or slightly higher is generally considered acceptable. A current ratio that is lower than the industry average would indicate a higher risk of distress or default. A higher number is usually better. However, a very high current ratio compared to the industry average could be an indication of inefficient use of assets by management.

**Debt/Capital Ratio:** Debt-to-capital ratio is a company's total debt (interest-bearing debt + both short- and long-term liabilities) divided its total capital (interest-bearing debt + shareholders' equity). It is a measure of a company's financial leverage. All else being equal, the higher the debt-to-capital ratio, the riskier the stock.

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

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**Net Margin:** Net margin is calculated as net income divided by sales. It shows how much of each dollar in sales generated by a company translates into profit. For example, if a company's net margin is 15%, its net income is 15 cents for every \$1 of sales it makes.

A change in margin can reflect either a change in business conditions, or a company's cost controls, or both. If a company's expenses are growing faster than sales, its net margin will decline. However, different net margin rates are considered good for different industries, so it's better to compare net margin rates of companies in the same industry group.

**Return on Equity:** Return on equity (ROE) is calculated as trailing-12-month net income divided by trailing-12-month average shareholder equity (including reinvested earnings). This metric is considered a measure of how effectively management is using a company's assets to generate profits. For example, if a company's ROE is 10%, it creates 10 cents profits for every \$1 shareholder equity, which is basically the company's assets minus debt. A company's ROE deemed good or bad depends on what's normal for its peers or industry group.

**Sales/Assets Ratio:** The sales-to-assets ratio or asset utilization ratio or asset turnover ratio is calculated as a company's annual sales divided by average assets (average of assets at the beginning of the year and at the year's end). This metric helps investors understand how effectively a company is using its assets to generate sales. For example, a sales-to-assets ratio of 2.5 indicates that the company generated \$2.50 in sales for every \$1 of assets on its books.

The higher the sales-to-assets ratio, the better the company is performing. However, similar to many other ratios, the asset turnover ratio tends to be higher for companies in certain industries/sectors than in others. So, a company's sales-to-assets ratio should be compared with the same for its industry/sector.

**Historical EPS Growth (3-5 Years):** This is the average annual (trailing-12-month) EPS growth rate over the last 3-5 years. This metric helps investors see how a company's EPS has grown from a long-term perspective.

Note: There are many factors that can influence short-term numbers — a recession will reduce this number, while a recovery will inflate it. The longterm perspective helps smooth out short-term events.

**Projected EPS Growth (F1/F0):** This is the estimated EPS growth rate for the current financial year. It is calculated as the consensus estimate for the current fiscal year (F1) divided by the reported EPS for the last completed fiscal year (F0).

**Current Cash Flow Growth:** It measures the latest year-over-year change in operating cash flow. Cash flow growth tells an investor how quickly a company is generating inflows of cash from operations. A positive change in the cash flow is desired and shows that more 'cash' is coming in than going out.

**Historical Cash Flow Growth (3-5 Years):** This is the annualized change in cash flow over the last 3-5 years. The change in a longer period helps put the current reading into proper perspective. By looking at the rate, rather than the actual dollar value, the comparison across the industry and peers becomes easier.

**Projected Sales Growth (F1/F0):** This metric looks at the estimated sales growth for the current year. It is calculated as sales estimate for the current fiscal year (F1) divided by the reported sales for the last completed fiscal year (F0).

Like EPS growth, a higher rate is better for sales growth. A look at a company's projected sales growth instantly tells you what the outlook is for their products and services. However, different sales growth rates are considered good for different industries, so it's better to compare sales growth rates of companies in the same industry group.

**EPS F1 Estimate 1-Week Change:** The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past week. The change in a company's consensus EPS estimate (or earnings estimate revision) has proven to be strongly correlated with the near-term price movement of its shares. It is an integral part of the Zacks Rank.

If a stock's consensus EPS estimate is \$1.10 now versus \$1.00 a week ago, that will be reflected as a 10% upward revision. If, on the other hand, it went from \$1.00 to 90 cents, that would be a 10% downward revision.

**EPS F1 Estimate 4-Week Change:** The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past four weeks.

A stock's earnings estimate revision in a 1-week period is important. But it's more meaningful to look at the longer-term revision. And, of course, the 4-week change helps put the 1-week change into proper perspective.

**EPS F1 Estimate 12-Week Change:** The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past 12 weeks.

This metric essentially shows how the consensus EPS estimate has changed over a period longer than 1 week or 4 weeks.

**EPS Q1 Estimate Monthly Change:** The percentage change in the Zacks Consensus EPS estimate for the current fiscal quarter over the past four weeks.

While the revision in consensus EPS estimate for the current fiscal year is strongly correlated with the near-term price movement of its shares, the estimate revision for the current fiscal quarter is an important metric as well, especially over the short term, and particularly as a stock approaches its earnings date. If a stock's Q1 EPS estimate decreases ahead of its earnings release, it's usually a negative sign, whereas an increase is a positive sign.