

BioMarin Pharma (BMRN)

\$77.07 (As of 04/09/21)

Price Target (6-12 Months): **\$81.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 08/05/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:D

Value: D

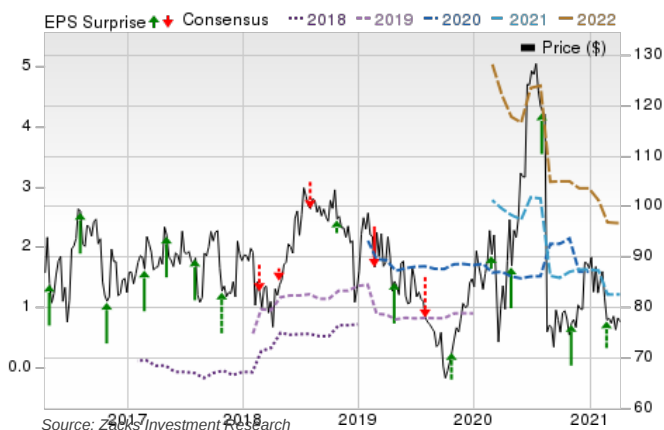
Growth: F

Momentum: C

Summary

Sales of BioMarin's key drug Vimizim are being driven by strong demand. New drug, Palynziq is witnessing strong commercial uptake in the United States. Regulatory applications for key candidate, vosoritide are under review in the United States and Europe with potential approvals anticipated in 2021. However, the FDA issued a CRL to BLA for Roctavian, a gene therapy for hemophilia A, asking for additional data, which resulted in a delay in potential approval timeline. Roctavian is now not anticipated to be launched until late 2022. Kuvan sales have begun to be hurt by generic competition as the drug lost U.S. exclusivity. The stock has underperformed the industry this year so far. Estimates have gone up ahead of Q1 earnings. BioMarin has a positive record of earnings surprises in the recent quarters.

Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$131.95 - \$71.35
20-Day Average Volume (Shares)	1,075,565
Market Cap	\$14.0 B
Year-To-Date Price Change	-12.1%
Beta	0.59
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Medical - Biomedical and Genetics
Zacks Industry Rank	Bottom 26% (187 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	16.7%
Last Sales Surprise	1.1%
EPS F1 Estimate 4-Week Change	17.6%
Expected Report Date	05/05/2021
Earnings ESP	0.0%
P/E TTM	45.3
P/E F1	63.7
PEG F1	1.2
P/S TTM	7.5

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	501 E	542 E	572 E	609 E	2,194 E
2021	445 E	436 E	446 E	470 E	1,817 E
2020	502 A	429 A	477 A	452 A	1,860 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$0.46 E	\$0.55 E	\$0.56 E	\$0.60 E	\$2.40 E
2021	\$0.27 E	\$0.27 E	\$0.28 E	\$0.22 E	\$1.21 E
2020	\$0.63 A	\$0.32 A	\$0.54 A	\$0.21 A	\$1.67 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 04/09/2021. The report's text and the analyst-provided price target are as of 04/12/2021.

Overview

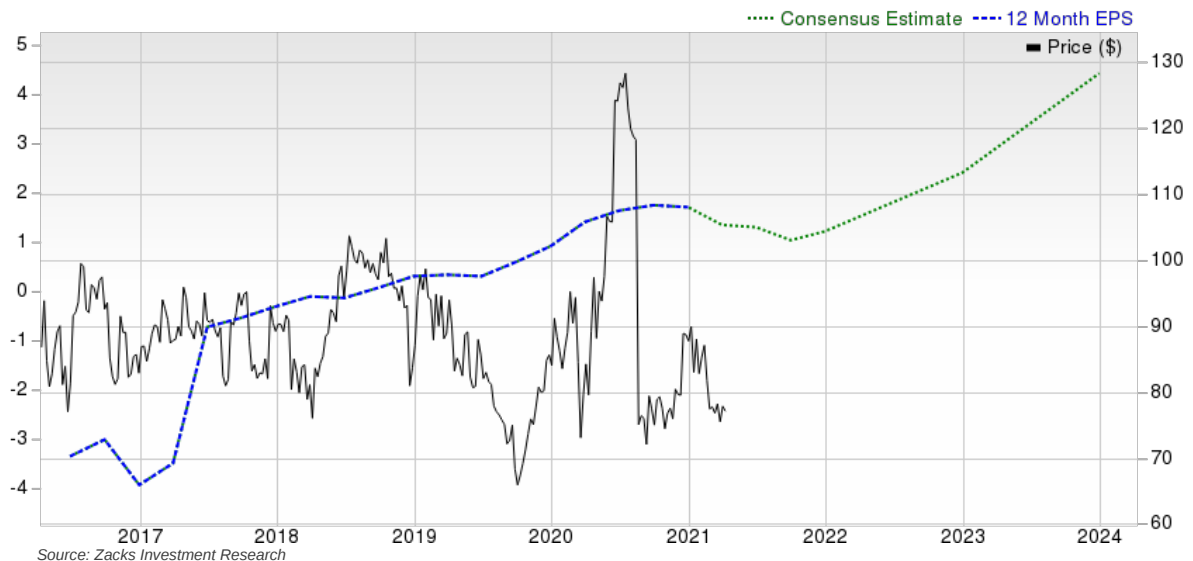
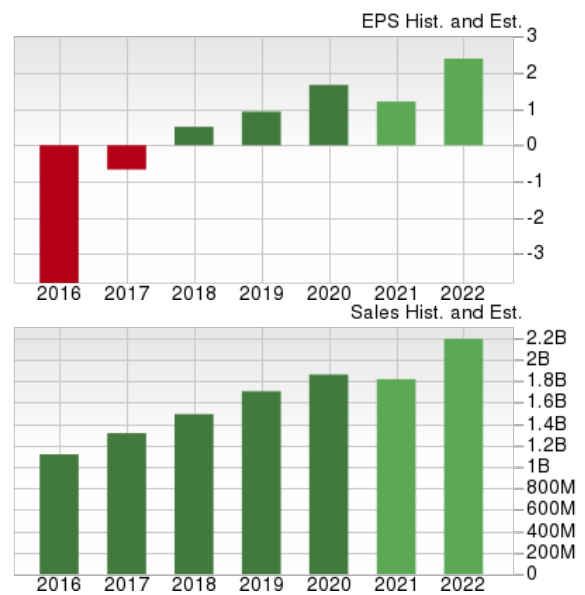
San Rafael, CA-based BioMarin Pharmaceutical Inc. focuses on the development and commercialization of treatments for serious life threatening medical conditions, mostly for children. The company's portfolio comprises six marketed products namely, Aldurazyme (mucopolysaccharidosis type I (MPS I)), Naglazyme (MPS VI), Kuvan (phenylketonuria (PKU) – a rare genetic enzyme deficiency disorder), Vimizim (MPS IVA or Morquio syndrome type A), Brineura (CLN2– a form of Batten disease) and Palynziq (PKU). BioMarin has a collaboration agreement with Sanofi's subsidiary Genzyme for Aldurazyme. Genzyme is BioMarin's sole customer for Aldurazyme and is responsible for marketing and selling Aldurazyme to third parties.

Its two key late-stage investigational products are Roctavian/valoctocogene roxaparvovec/valrox (hemophilia A) and vosoritide (achondroplasia).

BioMarin's biologics license application (BLA) for Roctavian/valoctocogene roxaparvovec (valrox), a gene therapy for severe hemophilia A, was given a complete response letter (CRL) by the FDA in August 2020. Regulatory applications for vosoritide, which has been developed for treating achondroplasia, the most common form of dwarfism, are under review in Europe and United States. Another important pipeline candidate is gene therapy PKU candidate, BMN 307.

In Jan 2015, BioMarin acquired a Dutch biotech company Prosensa, in an all-cash transaction valued at \$751.5 million, to boost its rare disease pipeline. Moreover, the company acquired all global rights to Kuvan, excluding Japan, and Palynziq (pegvaliase) from Merck Serono in Jan 2016, for cash payments of \$374.5 million plus certain milestone payments.

BioMarin generated total sales of \$1.9 billion in 2020, up 9%.



Reasons To Buy:

- ▲ **Key Products Continue to Drive Growth:** Vimizim is doing well, surpassing the company's expectations. Vimizim's sales rose 17% in 2018 and 13% in 2019. Though sales were flat in 2020, in 2021, Vimizim's sales are expected to rise 8% year over year.

Brineura, launched for the treatment of children with CLN2 disease – a form of Batten disease – in 2017, is expected to record sales growth of approximately 18% in 2021.

Meanwhile, Palynziq (pegvaliase) injection, developed to reduce blood phenylalanine (Phe) levels in PKU patients was launched in July 2018. In the EU, a marketing application was approved in May 2019. Palynziq is witnessing strong commercial uptake in the United States. BioMarin believes the injection has peak commercial opportunity of roughly \$1 billion as it demonstrated dramatic Phe reductions in PKU patients in pivotal studies. BioMarin is optimistic that Palynziq will be the approved treatment of choice for adults, complementing Kuvan, which is a popular treatment choice for children. Palynziq sales were \$87 million in 2019 and \$171 million in 2020. In 2021, Palynziq sales are expected to be in the range of \$210 million - \$250 million.

- ▲ **Vosoritide; A Key Pipeline Candidate:** An important candidate in BioMarin's pipeline is vosoritide, which has been developed to treat achondroplasia, the most common form of dwarfism for which no drug is approved yet. Regulatory application for vosoritide are under review in the EU and the United States. A decision in the United States is expected on Aug 20, 2021. BioMarin expects potential commercial launch of vosoritide in Europe in the third quarter of 2021. The regulatory applications are based on final data from a phase III study, evaluating the efficacy and safety of vosoritide in children (aged 5-14), long-term safety and efficacy data from the ongoing phase II and phase III extension studies and extensive natural history data.

In December 2020, BioMarin announced positive top-line data from the phase III study of vosoritide, which showed that cumulative height gain over the two-year treatment period was 3.52 cm more than the untreated children

A potential approval will make the drug the first and only approved treatment for achondroplasia in the United States. BioMarin estimates that around 25,000 children suffer from this disorder in its commercial territories, which represents a decent sales growth opportunity.

Also, an investigator-initiated study on vosoritide for the second indication — genetic short stature (GSS) — has begun as part of a research collaboration with Children's National Hospital.

- ▲ **Promising Gene Therapy Pipeline:** Valoctocogene roxaparvovec was the first candidate in hemophilia A to demonstrate statistically significant evidence of annualized bleed rate superiority over standard of care recombinant FVIII in phase III studies. Though the NDA for the gene therapy was given CRL by the FDA and the marketing authorization application (MAA) in Europe was withdrawn, BioMarin plans to re-submit the MAA along with this latest one-year data to the EMA in the second quarter of 2021 and will also share the data with the FDA. Phase I/II studies evaluating a higher dose (6e13kg/vg) of valoctocogene roxaparvovec are ongoing.

A third PKU treatment option in BioMarin's PKU franchise is its gene therapy candidate, BMN 307. A phase I/II study on BMN 307 began in September 2020.

Another gene therapy candidate in BioMarin's pipeline is BMN 331 for the treatment of hereditary angioedema (HAE) for which IND enabling activities have begun.

Successful development and commercialization of these candidates will help drive long-term growth at BioMarin.

- ▲ **Deals to Boost Portfolio and Strengthen Pipeline:** In January 2016, BioMarin acquired all global rights to Kuvan and pegvaliase (now marketed as Palynziq) from Merck Serono. Previously, the company had exclusive rights to Kuvan in the U.S. and Canada and to pegvaliase in the U.S. and Japan. With this transaction, BioMarin has gained exclusive worldwide rights to Kuvan and pegvaliase with the exception of Kuvan in Japan. The acquisition of PKU rights in these markets represents significant opportunity for BioMarin to establish commercial leadership for the treatment of PKU, first with Kuvan, and then with pegvaliase.

- ▲ **Favorable Debt Profile:** As of Dec 31, 2020, BioMarin had \$1.08 billion in total debt (long-term debt plus current debt) on its balance sheet. Cash and cash equivalents totaled approximately \$1.07 billion. It has no debt accruing in the next 12 months. As of Dec 31 2020, BioMarin's debt/capital ratio was 20.8%, less than 26.3% as of Sep 30 2020. A lower ratio indicates lower financial risk.

Regulatory applications for key candidate vosoritide are under review in the United States and Europe with potential approvals anticipated in 2021.

Reasons To Sell:

- ▼ **Share Price Underperforming Industry:** BioMarin's share price movement shows that the stock has underperformed the industry this year so far. The stock has declined 12.1% during this period, underperforming the 6.7% decrease for the industry.
- ▼ **Kuvan Faces Generic Competition:** Kuvan, which has been performing well since its launch, lost U.S. exclusivity beginning in October 2020, resulting in generic competition, which hurt sales significantly in the fourth quarter of 2020. Sales are expected to continue to decline in 2021 due to further generic erosion in the United States.

The a CRL given by the FDA to BLA for Roctavian, a gene therapy for hemophilia A, resulted in a delay in potential approval timeline

- ▼ **CRL to Roctavian & Other Pipeline Setbacks:** While we believe that BioMarin has an impressive pipeline, delayed approvals or development setbacks would have a negative impact on the stock.

In August 2020, the FDA issued a complete response letter (CRL) to Roctavian's BLA ahead of Aug 21 PDUFA date as the FDA was not satisfied with the available data and has asked for two-year follow-up data on annualized bleed rates from the ongoing phase III study to provide additional evidence of a durable effect. The data is not expected to be available before November 2021.

Investors were expecting the FDA to grant accelerated approval to the drug on the PDUFA date. It was expected that Roctavian, if approved, would be a transformational product as it has the potential to dramatically change the treatment paradigm. However, the CRL now pushes potential approval of Roctavian to 2022 and is a major blow to BioMarin's prospects. BioMarin also withdrew its marketing application in the EU for Roctavian.

In 2016, BioMarin discontinued clinical and regulatory development of Kyndrisa for the treatment of Duchenne muscular dystrophy (DMD) amenable to exon 51 skipping. The decision followed the company's discussions with the European Medicines Agency's Committee for Medicinal Products for Human Use, which hinted at the issuance of a negative opinion. The FDA had also issued a complete response letter in January 2016 for Kyndrisa stating that the standard of substantial evidence of Kyndrisa effectiveness was not met.

BioMarin has also discontinued the development of the three follow-on products of Kyndrisa – BMN 044, BMN 045, and BMN 053 – that were being evaluated in phase II studies for specific forms of DMD. BioMarin terminated internal development of the reveglucosidase alfa program (for the treatment of patients with late-onset Pompe disease). Also, BioMarin halted further development of BMN-195 for a type of muscle disease following disappointing results from an early-stage study.

- ▼ **Prosensa Acquisition Failed to Deliver:** The Jan 2015 acquisition of Prosensa worth a million dollars was assumed to be a strategic move. The acquisition added a late-stage DMD candidate Kyndrisa, which was considered to be a synergistic fit for BioMarin's rare disease pipeline. However, BioMarin failed to clear regulatory hurdles related to Kyndrisa and ultimately decided to drop development of the candidate. DMD, a devastating and debilitating disease, is estimated to affect nearly 1 in every 3,500 boys born across the world. Kyndrisa, had it been developed successfully, would have captured a major share of this orphan disease market.

Last Earnings Report

BioMarin Beats on Q4 Earnings, Gives 2021 Outlook

BioMarin's adjusted earnings of 21 cents per share beat the Zacks Consensus Estimate of 17 cents. Earnings were however down 16% year over year due to lower revenues and gross profit.

Total revenues were \$452.1 million in the reported quarter, down 1% from the year-ago period. Sales, however, beat the Zacks Consensus Estimate of \$447 million.

In the quarter, the company continued to experience a significant impact of COVID-19. The pandemic caused demand interruptions such as missed patient infusions and disruption in new patient starts for some of its products.

Quarterly Details

Product revenues (including Aldurazyme) were \$437.1 million in the quarter, almost flat year over year. Product revenues from BioMarin's marketed brands (excluding Aldurazyme) rose 6% year over year to \$435.8 million. Royalty and other revenues were \$15.1 million in the quarter, down 15.6%.

In the PKU franchise, Kuvan revenues declined 27% to \$89.0 million due to generic competition as the drug lost U.S. market exclusivity in October 2020. Palynziq injection sales grossed \$49.6 million in the quarter, up 56% year over year driven by new patients initiating therapy as well as the growing number of U.S. patients who have now achieved maintenance dosing. However, in Europe, Palynziq uptake was hurt by the pandemic due to clinic closures and disruption of pricing and reimbursement negotiations.

Total sales of PKU franchise declined 10% year over year to \$138.6 million.

Naglazyme sales rose 26% to \$119.7 million. Vimizim contributed \$142.5 million to total revenues, up 8% year over year. Sales of both Naglazyme and Vimizim benefited from the favorable timing of orders from the Middle East and Latin America. Naglazyme and Vimzim revenues vary on a quarterly basis, primarily due to the timing of central government orders from some countries.

Brineura generated sales of \$35.0 million in the quarter, up 39% year over year driven by patient growth.

Product revenues from Aldurazyme totaled \$1.2 million, down 95% year over year due to unfavorable timing of product fulfillment to Genzyme.

R&D expenses declined 14.1% year over year to \$133.5 due to lower clinical activity spend for valoctocogene roxaparvovec for severe hemophilia A. SG&A expenses increased 2.5% to \$165.2 million due to preparation for the potential commercial launches of vosoritide and Roctavian.

As of Dec 31, 2020, BioMarin had \$1.35 billion in cash, cash equivalents and investments, compared with \$1.8 billion at the end of Sep 30, 2020.

Full Year Results

Full-year 2020 total revenues increased 9% to \$1.86 billion. Adjusted earnings were \$1.63 per share in 2020 compared with 93 cents in the year-ago quarter.

2021 Guidance

BioMarin issued its financial guidance for 2021. The company expects the pandemic to continue to hurt sales in 2021. The company also expects significant declines in Kuvan revenues in the United States.

Total revenues are expected in the range of \$1.75-\$1.85 billion. Though the absolute sales range is lower than 2020, the guidance, at the midpoint indicates growth of 9% year over year for the core business (excluding Kuvan).

Vimizim sales are expected in the range of \$570-\$610 million. Kuvan sales guidance was maintained in the range of \$250-\$290 million. Naglazyme expected sales range is \$365-\$395 million. Brineura sales are expected within \$120-\$140 million. Palynziq sales guidance was maintained in the range of \$210-\$250 million. R&D costs are expected to be within \$645-\$695 million. SG&A expenses are anticipated in the range of \$725-\$775 million. The company expects adjusted net income to be in the range of \$170-\$220 million.

Pipeline Update

BioMarin said it plans to re-submit the MAA for valoctocogene roxaparvovec along with this latest one-year data to the EMA in the second quarter of 2021 and will also share the data with the FDA and discuss with the agency on potentially submitting a BLA with one-year results.

BioMarin supplemented its NDA for vosoritide with two-year phase III data. The move could push the PDUFA date for the NDA from August to November.

Quarter Ending	12/2020
Report Date	Feb 25, 2021
Sales Surprise	1.11%
EPS Surprise	16.67%
Quarterly EPS	0.21
Annual EPS (TTM)	-2.27

Recent News

Valrox Gets FDA's RMAT Tag – Mar 8

BioMarin announced that the FDA has granted Regenerative Medicine Advanced Therapy ("RMAT") designation to valoctocogene roxaparvovec. The designation was bestowed on valoctocogene roxaparvovec due to its potential to address unmet need in the severe hemophilia A mark.

Completes Enrollment in Vosoritide Study in Children – Mar 3

BioMarin announced the completion of patient enrollment in a phase II study evaluating vosoritide for the treatment of infants and young children with achondroplasia. The 52-week study includes approximately 70 infants and young children, aged zero to less than five years old. Top-line data from the study is expected in mid-2022.

One Year Data on Valrox – Jan 10

BioMarin announced one-year follow-up data from a phase III study on valoctocogene roxaparvovec in patients with hemophilia A.

With a mean follow-up of 71.6 weeks, data from the phase III study – GENER8-1 – showed that treatment with a single dose (6e13 vg/kg) of the gene therapy candidate significantly reduced annualized bleeding rate (ABR) by 84% and the mean annualized factor VIII (a clotting protein) infusion rate in the rollover population by 99%. Meanwhile, valoctocogene roxaparvovec demonstrated superiority to current standard of care, FVIII prophylactic therapy.

In a subset of patients who were dosed more than two years ago, the decline in Factor VIII expression was at a slower rate compared to that at the end of one year with continued hemostatic efficacy. The mean annualized bleed rate was 0.9 in a subset of patients dosed more than two years ago.

BioMarin plans to re-submit the MAA along with this latest one-year data to the EMA in the second quarter of 2021.

Valuation

BioMarin's shares are down 12.1% in the year-to-date period and 7.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and sector are down 6.7% and 2.8%, respectively in the year-to-date period. Over the past year, the Zacks sub-industry and sector are up 3.5% and 10.7%, respectively

The S&P 500 Index is up 10.5% in the year-to-date period and 52.4% in the past year.

The stock is currently trading at 7.64X trailing 12-month sales per share, which compares to 2.74X for the Zacks sub-industry, 3.16X for the Zacks sector and 5.3X for the S&P 500 Index. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$81 price target reflects 8.0X trailing 12-month sales per share.

The table below shows summary valuation data for BMRN

Valuation Multiples - BMRN					
		Stock	Sub-Industry	Sector	S&P 500
P/S TTM	Current	7.64	2.74	3.16	5.3
	5-Year High	16.94	3.62	3.69	5.3
	5-Year Low	7.03	2.36	2.42	2.83
	5-Year Median	11.4	3.22	3.27	3.91
P/B TTM	Current	3.41	2.96	3.86	6.99
	5-Year High	8.59	5.09	5.12	6.99
	5-Year Low	3.25	2.01	3.03	3.83
	5-Year Median	5.45	3.74	4.36	4.98

As of 4/9/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 26% (187 out of 254)



Top Peers

Company (Ticker)	Rec	Rank
Ascendis Pharma AS (ASND)	Neutral	3
Editas Medicine, Inc. (EDIT)	Neutral	3
Senesco Technologies Inc. (ELOX)	Neutral	3
Amicus Therapeutics, Inc. (FOLD)	Neutral	3
Reata Pharmaceuticals, Inc. (RETA)	Neutral	3
Sangamo Therapeutics, Inc. (SGMO)	Neutral	3
Ultragenyx Pharmaceutical Inc. (RARE)	Underperform	4
REGENXBIO Inc. (RGNX)	Underperform	5

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

Industry Comparison Industry: Medical - Biomedical And Genetics				Industry Peers		
	BMNR	X Industry	S&P 500	ASND	ELOX	RETA
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	3
VGM Score	D	-	-	F	B	F
Market Cap	14.01 B	383.15 M	29.66 B	6.75 B	118.63 M	3.20 B
# of Analysts	9	3	12	8	2	4
Dividend Yield	0.00%	0.00%	1.33%	0.00%	0.00%	0.00%
Value Score	D	-	-	F	F	F
Cash/Price	0.08	0.22	0.06	0.12	0.18	0.22
EV/EBITDA	151.23	-5.88	17.00	-15.79	-3.00	-9.11
PEG F1	1.21	1.52	2.38	NA	NA	NA
P/B	3.41	4.08	4.01	7.00	11.58	7.66
P/CF	61.30	22.32	17.08	NA	NA	NA
P/E F1	63.92	25.62	22.05	NA	NA	NA
P/S TTM	7.53	22.64	3.45	855.17	NA	354.91
Earnings Yield	1.57%	-11.19%	4.47%	-7.01%	-23.73%	-11.19%
Debt/Equity	0.26	0.00	0.66	0.00	0.62	0.00
Cash Flow (\$/share)	1.26	-1.01	6.78	-8.76	-0.83	-6.61
Growth Score	F	-	-	F	A	F
Historical EPS Growth (3-5 Years)	NA%	18.08%	9.39%	NA	NA	NA
Projected EPS Growth (F1/F0)	138.54%	6.78%	15.24%	-572.14%	-124.22%	-666.86%
Current Cash Flow Growth	99.42%	14.87%	0.61%	97.60%	-33.25%	-16.95%
Historical Cash Flow Growth (3-5 Years)	31.04%	6.02%	7.37%	NA	NA	NA
Current Ratio	4.76	6.23	1.39	14.02	2.63	7.11
Debt/Capital	20.75%	0.00%	41.26%	0.00%	38.40%	0.00%
Net Margin	46.18%	-178.87%	10.59%	-6,110.01%	NA	-2,747.00%
Return on Equity	3.35%	-57.22%	14.86%	-60.27%	-192.48%	-93.18%
Sales/Assets	0.34	0.17	0.51	0.01	NA	0.01
Projected Sales Growth (F1/F0)	-2.33%	13.43%	7.36%	344.03%	NA	-9.64%
Momentum Score	C	-	-	D	A	A
Daily Price Change	-1.48%	-1.09%	0.62%	-3.01%	-7.23%	-6.80%
1-Week Price Change	3.11%	1.31%	0.35%	-0.31%	4.67%	3.04%
4-Week Price Change	-0.44%	-11.29%	4.25%	-16.26%	-23.77%	-31.91%
12-Week Price Change	-5.27%	-6.01%	8.87%	-22.47%	-29.43%	-26.32%
52-Week Price Change	-3.12%	40.99%	52.90%	3.50%	34.09%	-37.38%
20-Day Average Volume (Shares)	1,075,565	339,513	2,047,782	219,346	98,314	293,923
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	17.65%	0.00%	0.00%	-15.31%	17.26%	0.00%
EPS F1 Estimate 12-Week Change	-72.22%	-2.42%	2.24%	-15.72%	17.26%	-0.23%
EPS Q1 Estimate Monthly Change	80.00%	0.00%	0.00%	-8.05%	12.50%	0.00%

Source: Zacks Investment Research

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.

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	F
Momentum Score	C
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.

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.

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.

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.

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.