

Novartis AG (NVS)

\$89.18 (As of 11/25/20)

Price Target (6-12 Months): **\$94.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 06/10/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:C

Value: A

Growth: C

Momentum: F

Summary

Novartis' performance in the year has been pretty ho-hum as sales were hit by the coronavirus pandemic. In particular, the dermatology, ophthalmology and Sandoz retail businesses were affected. On a positive note, Entresto maintained momentum on increased patient share across markets, although Cosentyx's sales were soft. Contributions from Kisqali and gene therapy, Zolgensma, have also boosted the performance in recent times. New launches like Piqray, Mayzent and Beovu should boost sales. The biosimilars portfolio also gains traction with new approvals and is expected to drive growth. However, Sandoz's generics business has been soft in the past few quarters. Moreover, pipeline setbacks and generic competition for key drugs are concerning. Shares have underperformed the industry in the past year.

Data Overview

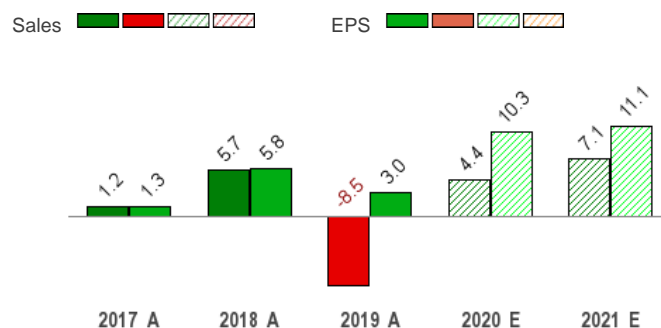
52-Week High-Low	\$99.84 - \$69.18
20-Day Average Volume (Shares)	2,019,981
Market Cap	\$204.1 B
Year-To-Date Price Change	-5.8%
Beta	0.49
Dividend / Dividend Yield	\$2.01 / 2.3%
Industry	Large Cap Pharmaceuticals
Zacks Industry Rank	Bottom 25% (190 out of 254)

Last EPS Surprise	7.0%
Last Sales Surprise	-4.7%
EPS F1 Estimate 4-Week Change	0.8%
Expected Report Date	02/03/2021
Earnings ESP	0.0%
P/E TTM	15.6
P/E F1	15.4
PEG F1	1.8
P/S TTM	4.2

Price, Consensus & Surprise



Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021					53,101 E
2020	12,283 A	11,347 A	12,259 A	13,324 E	49,576 E
2019	11,106 A	11,764 A	12,172 A	12,403 A	47,498 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021					\$6.42 E
2020	\$1.55 A	\$1.35 A	\$1.52 A	\$1.37 E	\$5.78 E
2019	\$1.20 A	\$1.32 A	\$1.41 A	\$1.31 A	\$5.24 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 11/25/2020. The reports text is as of 11/26/2020.

Overview

Switzerland-based Novartis has one of the strongest and broadest portfolio of oncology drugs and generics, which has enabled it to maintain its dominant position as a top pharma company over the years. Novartis is one of the leaders in healthcare solutions with a wide array of drugs and a presence in not only oncology but neuroscience, cardiovascular and generics as well.

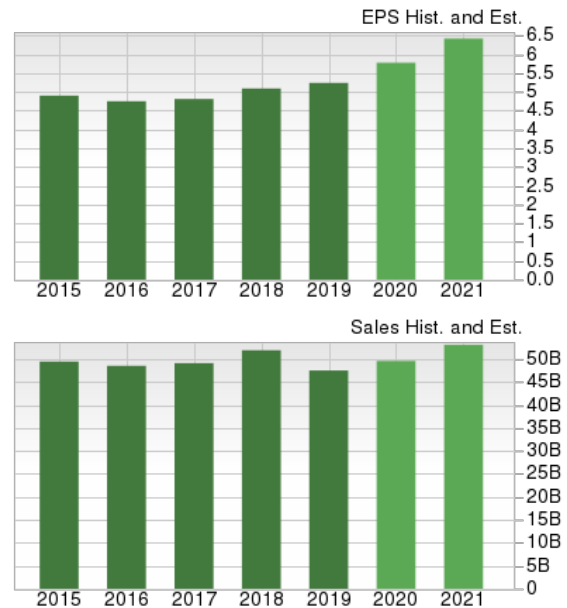
Novartis' efforts to strengthen its wide and deep oncology portfolio by developing breakthrough treatments had made it even more formidable in this space. The FDA approval of its breakthrough gene transfer treatment Kymriah in August 2017 bolstered its position in this relatively new but competitive space. Further, the FDA approved Zolgensma, the first and only gene therapy for pediatric patients with spinal muscular atrophy (SMA).

Given the evolving and competitive nature of the pharma business, Novartis has constantly taken steps to reshape its business with prudent acquisitions and strategic divestitures. In March 2015, Novartis acquired certain oncology products and pipeline compounds from Glaxo for \$16 billion. In exchange, it sold its non-influenza Vaccines business to Glaxo for \$7.1 billion. Also, the company has spun off the Alcon business into a separate company to focus better on its growing pharma business. In January 2015, Novartis divested its Animal Health division to Lilly for approximately \$5.4 billion. In July 2015, the company divested its influenza vaccines business to CSL Limited for \$275 million. Apart from these, the company continues to make small tuck-in acquisitions to broaden its pipeline. Novartis also acquired The Medicines Company, adding inclisiran—a potentially transformative cholesterol-lowering therapy — to its portfolio.

Following the separation of the Alcon business, Novartis now has two operating segments:

- **Innovative Medicines** (Pharmaceuticals): Innovative patent-protected prescription medicines and ophthalmic pharmaceutical (79.5% of 2019 Sales).
- **Sandoz**: Generic pharmaceuticals (20.5% of 2019 Sales)

Revenues for 2019 came in at \$47.5 billion, up 6% from 2018.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ **Strong Oncology Portfolio:** Novartis has a strong oncology portfolio, consisting of drugs like Afinitor, Exjade, Jakavi, Zykadia, Tasisna, Luthathera, Promacta and Jadenu. Particularly, Promacta/Revolade, Tatinlar + Mekinist, Jakavi, and Luthathera have fueled the top line in the recent quarters. The FDA approval of Kiskali for the first-line treatment of postmenopausal women with hormone receptor positive, human epidermal growth factor receptor-2 negative (HR+/HER2) advanced or metastatic breast cancer has boosted the company's oncology portfolio. The label expansion of Kiskali, Zykadia, Tatinlar plus Mekinist should further drive sales. Novartis acquired Endocyte to expand expertise in radiopharmaceuticals and transformational therapeutic platforms. The acquisition added 177Lu-PSMA-617, a potential first-in-class radioligand therapy, to its diverse portfolio. The therapy is in phase III development for metastatic castration-resistant prostate cancer (mCRPC). The recent approval of Piqray for advanced or metastatic breast cancer and Tabrecta for lung cancer further strengthened Novartis' oncology portfolio.
- ▲ **Novartis Forays Into Gene Therapy:** Novartis is looking to solidify its presence in the gene therapy space. The FDA approval of Zolgensma, the first and only gene therapy for pediatric patients with spinal muscular atrophy (SMA), a rare genetic disorder, was a great boost for the company. Zolgensma addresses the genetic root cause of SMA by providing a functional copy of the human SMN gene to halt disease progression through sustained SMN protein expression with a single, one-time intravenous (IV) infusion. The initial uptake of the therapy has been strong.
- ▲ **First CAR T Therapy Approved:** In August 2017, the FDA approved its breakthrough gene transfer treatment, Kymriah suspension, for the treatment of patients up to 25 years of age with B-cell precursor acute lymphoblastic leukemia (ALL) that is refractory or in second or later relapse. The approval is a major boost for Novartis, given the potential in the CAR T therapy space.
- ▲ **Strong Biosimilars Business:** Sandoz's biosimilar business continues to gain traction. A biosimilar version of Rituxan (rituximab) was approved by the European Commission in June 2017 (marketed as Rixathon). In August 2016, Sandoz's Erelzi, a biosimilar version of Amgen's blockbuster drug Enbrel gained approval in the United States for five indications. Erelzi was also approved by the European Commission in 2017. Sandoz also obtained approval for Zessly, a biosimilar version of Johnson & Johnson's Remicade, in Europe. The FDA also approved Hyrimoz, the biosimilar of Humira. Approval of additional biosimilars will fuel further growth.
- ▲ **New Drugs to Boost Portfolio:** The approval of new drugs and label expansion of existing drugs will boost the top line in the days to come. Heart failure drug, Entresto, and psoriasis drug, Cosentyx, have performed impressively since their launch. Psoriasis drug, Cosentyx, was also approved for the treatment of two new indications — ankylosing spondylitis (AS) and psoriatic arthritis (PsA) — in the EU in 2016. Moreover, the FDA approved Cosentyx for AS and PsA. The uptake of Cosentyx has been strong and the company has grabbed market shares from rivals, Humira and Enbrel. New drug approvals like Mayzent (or the treatment of adults with relapsing forms of multiple sclerosis (MS), Adakveo (to reduce the frequency of vaso-occlusive crises (VOCs) or pain crises in patients aged 16 years or above with sickle cell disease) and Beovu (for the treatment of wet age-related macular degeneration) should boost the top-line. The FDA recently approved Kesimpta as a subcutaneous injection for the treatment of relapsing forms of multiple sclerosis (RMS), to include: clinically isolated syndrome, relapsing-remitting disease and active secondary progressive disease.
- ▲ **Alcon Spin-Off Positive:** Novartis spun-off its ophthalmology division, Alcon, into a separately-traded standalone company in order to grow as a medicines company solely. The separation of the Alcon business is a step in the right direction, as the business was not performing as per management's expectations. While it did revive in between, the company decided to spin-off the same in order to focus better on its legacy drug business. The company is looking to restructure its business to become a core drug-focused company, powered by data and digital technologies.

Novartis has a strong oncology portfolio and continues to work on developing its immuno-oncology pipeline. Besides, Sandoz is working on further advancing its portfolio of biosimilars.

Reasons To Sell:

▼ **Share Price Performance:** Novartis' stock has underperformed the industry in the past year.

▼ **Generic Threat to Key Products:** We are highly concerned about the loss of patent protection for some of the key drugs in Novartis' portfolio. Gleevec/Glivec, Diovan and Exforge face continued and increasing generic competition in major markets. The loss of patent protection for these top-selling drugs continue to hurt sales. Patent protection for Exjade has expired in the United States. Oncology drugs are facing competition from immuno-oncology therapies. Generic versions of Sandostatin SC are available in the United States, the EU and Japan.

Novartis is expected to face challenging conditions ahead due to generic competition for several of its key drugs.

▼ **Pipeline Setbacks a Concern:** Novartis suffered quite a few pipeline setbacks. The company received a complete response letter from the FDA in October 2018 regarding its supplemental Biologics License Application for ACZ885 (brand name Ilaris) in cardiovascular risk reduction. Earlier the company received a setback when a phase IIb/III study evaluating BYM338 (bimagrumab) in sporadic inclusion body myositis failed to meet the primary endpoint. Similar setbacks will weigh on the company as it looks to revive its core pharmaceutical business. Meanwhile, the FDA has recently approved a label update for ophthalmology drug, Beovu, to include additional safety information regarding retinal vasculitis and retinal vascular occlusion. The growth trajectory that Beovu takes up following this label update has yet to be seen.

▼ **Sandoz Facing Pricing Pressure:** The generic division, Sandoz, is facing stiff competition from companies that market patented pharmaceutical products as well as other generic and biosimilar pharmaceutical companies, which aggressively compete for market share, mainly through significant price competition. In particular, industry-wide price competition among generic pharmaceutical companies and consolidation of buyers caused significant declines in sales and profits of Sandoz in the United States.

▼ **Unfavorable Debt Profile:** As of Sep 30, the company's debt to total capital ratio stands at 0.40, which is up from the previous quarter's 0.33. A higher ratio indicates higher financial risk and vice versa.

Last Earnings Report

Novartis' Q3 Earnings Surpass Estimates, Sales Miss

Third-quarter 2020 core earnings (excluding one-time charges) of \$1.52 per share easily beat the Zacks Consensus Estimate of \$1.42 and increased from \$1.41 reported in the year-ago quarter.

However, revenues of \$12.2 billion missed the Zacks Consensus Estimate of \$12.9 billion as the outbreak of COVID-19 negatively impacted demand. Particularly, the dermatology, ophthalmology and Sandoz retail businesses were affected.

All growth rates mentioned below are on a year-over-year basis and at constant exchange rates.

Quarter Ending	09/2020
Report Date	Oct 27, 2020
Sales Surprise	-4.67%
EPS Surprise	7.04%
Quarterly EPS	1.52
Annual EPS (TTM)	5.73

Quarter in Detail

Novartis operates under two segments — Innovative Medicines and Sandoz (generics).

The Innovative Medicines division recorded sales of \$9.8 billion, up 1% year over year. Within this segment, the Pharmaceuticals business unit grew 2%, driven by strong performance of Entresto, Cosentyx and Zolgensma. Growth was partly offset by declines in Established Medicines and ophthalmology brands.

Cosentyx sales increased 7% to \$1.02 billion, driven by continued growth despite lower new patient starts across the market in dermatology and rheumatology due to COVID-19. Entresto sales grew 45 % to \$632 million owing to strong growth with increased patient share across markets, driven by increased demand as the essential first choice therapy for rEF heart failure. Increasing contribution from Zolgensma (gene therapy for spinal muscular atrophy) also boosted this business unit, as sales jumped 79% to \$291 million.

Oncology business unit sales were down 1% as strong performance of Kisqali, Promacta/Revolade, Jakavi, Tafinlar + Mekinist and Piqray was offset by generic competition for Afinitor and Exjade. The COVID-19 pandemic continued to negatively impact dermatology and ophthalmology sales. Kisqali sales came in at \$183 million, up 50% year over year. Promacta sales came in at \$442 million, up 16%.

Sales at the Sandoz division were \$2.4 billion, down 3% due to COVID-19 impacts. Nevertheless, biopharmaceutical sales grew 13%, driven by continued strong double-digit growth in Europe from Hyrimoz (adalimumab), Erelzi (etanercept) and Zessly (infliximab), and from Omnitrope (somatropin) across all regions.

Guidance for 2020

The company expects net sales in 2020 to grow in mid-single digits. Innovative Medicines revenues are projected to grow in mid-single digits. Revenues from Sandoz are now expected to grow broadly in line with the prior-year level (previous guidance: low-single-digit growth).

Key Pipeline Updates

Novartis received FDA approval for Kesimpta (ofatumumab) as a subcutaneous injection for the treatment of relapsing forms of multiple sclerosis (RMS).

Breast cancer drug, Piqray, in combination with fulvestrant, was approved in Europe for the treatment of HR+/HER2- advanced breast cancer with a PIK3CA mutation, after disease progression following endocrine therapy as monotherapy.

Leqvio (inclisiran) received a positive CHMP opinion for the treatment of adults with hypercholesterolemia or mixed dyslipidemia.

Cosentyx' label was expanded as it received EC approval for the treatment of moderate-to-severe plaque psoriasis in children and adolescents aged 6 to 18 years. The drug was also approved in Japan for non-radiographic axial spondyloarthritis.

Recent News

Partners With Mesoblast for ARDS Cell Therapy – Nov 19

Novartis announced that it has obtained exclusive rights for a potential acute respiratory distress syndrome cell therapy from Mesoblast. Novartis entered into an exclusive worldwide license and collaboration agreement with Mesoblast for the development, commercialization and manufacturing of remestemcel-L for the treatment of acute respiratory distress syndrome (ARDS), including that associated with COVID-19.

Remestemcel-L will use mesenchymal stromal cells (MSCs), a cell-based platform technology, to treat this deadly condition and improve outcomes. The candidate is currently being evaluated in a phase III study (n=300) for COVID-19-related ARDS. An open-label compassionate use program was conducted in March, which included 12 patients with COVID-19-related ARDS, who were being supported with mechanical ventilation. Treatment with remestemcel-L was associated with an 83% survival rate. Based on those results, remestemcel-L is now being studied in an ongoing 300-patient phase III study conducted in collaboration with the Cardiothoracic Surgical Network. The study is anticipated to be completed in early 2021.

Data on Inclisiran – Nov 13

Novartis announced results from two pooled post-hoc analyses of phase III ORION-9, -10 and -11 trials, evaluating the impact of age and gender on the efficacy and safety of inclisiran, an investigational and potential first-in-class small interfering RNA (siRNA) for hyperlipidemia in adults with atherosclerotic cardiovascular disease (ASCVD) or heterozygous familial hypercholesterolemia (HeFH). Data showed that inclisiran consistently reduced low-density lipoprotein cholesterol (LDL-C) by approximately 51% in both male and female adult patients and in three age categories.

Update on CAN-COVID Study – Nov 6

Novartis announced new data from an interim analysis for the randomized, double-blind, placebo-controlled CAN-COVID trial evaluating the efficacy and safety of Ilaris (canakinumab) in hospitalized patients with COVID-19 pneumonia and cytokine release syndrome. The ongoing trial failed to meet its primary endpoint showing that treatment with canakinumab plus standard of care (SoC) did not demonstrate a significantly greater chance of survival for patients without the need for invasive mechanical ventilation compared with placebo plus SoC up to Day 291. The trial did not meet its key secondary endpoint of reducing the COVID-19-related death rate during the 4-week period after treatment.

Data on Aimovig – Nov 2

Novartis announced that HER-MES, the first phase IV, randomized, double-blind, double-dummy, head-to-head study of Aimovig (erenumab) against topiramate, an anticonvulsant, in patients with episodic and chronic migraine met its primary and secondary endpoints. The results of the study showed that Aimovig had a superior tolerability and efficacy profile than topiramate, with less discontinuation over the course of the 24-week treatment phase. Aimovig also showed superior efficacy, with a greater proportion of patients achieving at least 50% reduction in their monthly migraine days (MMDs).

Adakveo Approved in Europe – Oct 30

Novartis announced that the European Commission (EC) has approved Adakveo (crizanlizumab) for the prevention of recurrent vaso-occlusive crises (VOCs), or pain crises, in patients with sickle cell disease aged 16 years and older.

Acquires Vedere Bio – Oct 29

Novartis announced that it acquired Vedere Bio whereby it gained two pre-clinical optogenetic AAV gene therapy programs and novel delivery technology for treating inherited retinal dystrophies and geographic atrophy. The acquisition expands the Novartis footprint in ophthalmology and enhances the company's position as an AAV-based gene therapy powerhouse.

Collaboration with Molecular Partners – Oct 28

Novartis announced a collaboration agreement with Molecular Partners AG whereby the former has been granted an option to in-license global rights of MP0420 and MP0423, multi-targeted direct-acting antiviral therapeutic candidates demonstrating potential efficacy against COVID-19. Molecular Partners will receive an upfront payment of CHF 60 million, including equity. Molecular Partners will receive a further payment of CHF 150 million, upon Novartis electing to take up the option to both therapeutic candidates, and significant royalty on sales.

Data on Iptacopan – Oct 26

Novartis announced positive phase II interim analysis results for iptacopan (LNP023), an investigational oral treatment for C3 glomerulopathy (C3G), at the virtually held American Society of Nephrology (ASN) 2020 Annual Meeting. Data from the open-label phase II study (NCT03832114), showed that after 12 weeks, iptacopan significantly reduced proteinuria by 49% compared to baseline values, as measured by 24-hour urine protein/creatinine ratio (UPCR) assessment, in twelve patients with C3G (P=0.0005). Iptacopan strongly inhibited alternative complement pathway activity and improved plasma C3 levels.

Orphan Drug Designation for Iptacopan- Oct 23

Novartis announced that the European Medicines Agency (EMA) has granted an orphan drug designation for iptacopan (LNP023) in IgA nephropathy (IgAN), following a recommendation from the Committee for Orphan Medicinal Products (COMP).

Orphan Drug Designation for Branaplam – Oct 21

Novartis announced that the FDA has granted Orphan Drug Designation for branaplam (LMI070) in Huntington's disease (HD). An Orphan Drug Designation grants special status to a drug that treats a rare disease or condition and provides companies certain benefits to encourage the continued development of medicines that bring novel solutions to patients with these severe diseases.

Valuation

Novartis' shares are down 5.8% in the year-to-date period and 3.3% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Medical sector are down 0.8% and 0.2% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry is up 3.3% while the sector is up 1.3%. The S&P 500 index is up 12.9% in the year-to-date period and 15.5% in the past year.

The stock is currently trading at 14X forward 12-month earnings per share which compares to 14.17X for the Zacks sub-industry, 21.96X for the Zacks sector and 22.65X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 18.15X and as low as 11.99X, with a 5-year median of 15.62X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$94.00 price target reflects 14.76X forward 12-month earnings per share.

The table below shows summary valuation data for NVS

Valuation Multiples - NVS					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	14	14.17	21.96	22.65
	5-Year High	18.15	16.62	22.98	23.47
	5-Year Low	11.99	13.17	15.89	15.27
	5-Year Median	15.62	15.14	19	17.72
P/S F12M	Current	3.87	4.5	2.78	4.24
	5-Year High	4.47	4.85	3.24	4.3
	5-Year Low	3.14	3.88	2.24	3.17
	5-Year Median	3.81	4.42	2.84	3.67
P/B TTM	Current	3.74	6.24	3.97	6.16
	5-Year High	4.64	7.37	5.09	6.17
	5-Year Low	2.19	3.69	2.97	3.74
	5-Year Median	2.8	5.32	4.29	4.91

As of 11/25/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 25% (190 out of 254)



Top Peers

Company (Ticker)	Rec	Rank
AbbVie Inc. (ABBV)	Neutral	3
GlaxoSmithKline plc (GSK)	Neutral	3
Eli Lilly and Company (LLY)	Neutral	3
Merck & Co., Inc. (MRK)	Neutral	3
Pfizer Inc. (PFE)	Neutral	3
Roche Holding AG (RHHBY)	Neutral	3
Sanofi (SNY)	Neutral	4
Bayer Aktiengesellschaft (BAYRY)	Underperform	5

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

Industry Comparison Industry: Large Cap Pharmaceuticals				Industry Peers		
	NVS	X Industry	S&P 500	BAYRY	PFE	RHHBY
Zacks Recommendation (Long Term)	Neutral	-	-	Underperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	5	3	3
VGM Score	C	-	-	A	C	A
Market Cap	204.11 B	147.11 B	26.28 B	54.68 B	203.05 B	282.84 B
# of Analysts	5	2	14	3	8	4
Dividend Yield	2.25%	2.29%	1.48%	3.63%	4.16%	1.74%
Value Score	A	-	-	A	A	A
Cash/Price	0.05	0.05	0.07	0.12	0.11	0.02
EV/EBITDA	14.11	14.22	14.65	7.52	9.75	NA
PEG F1	1.81	2.17	2.76	5.80	3.03	2.95
P/B	3.74	4.81	3.57	1.38	3.10	7.83
P/CF	11.29	10.96	13.72	4.22	8.89	12.92
P/E F1	15.43	14.03	21.80	7.83	12.77	15.61
P/S TTM	4.23	4.23	2.83	1.16	4.17	NA
Earnings Yield	6.48%	7.13%	4.40%	12.76%	7.83%	6.39%
Debt/Equity	0.49	0.77	0.70	0.95	0.76	0.36
Cash Flow (\$/share)	7.90	4.22	6.93	3.48	4.11	3.20
Growth Score	C	-	-	B	F	A
Historical EPS Growth (3-5 Years)	3.57%	6.69%	9.72%	-4.05%	6.54%	NA
Projected EPS Growth (F1/F0)	10.23%	7.87%	0.45%	5.84%	-3.01%	4.13%
Current Cash Flow Growth	4.27%	2.90%	5.23%	-8.03%	-6.57%	11.61%
Historical Cash Flow Growth (3-5 Years)	7.11%	7.37%	8.33%	6.30%	2.54%	9.89%
Current Ratio	0.91	1.17	1.38	0.90	1.40	1.23
Debt/Capital	32.69%	43.31%	41.99%	48.63%	43.19%	26.41%
Net Margin	14.71%	18.16%	10.44%	-22.32%	17.85%	NA
Return on Equity	24.39%	34.64%	14.99%	14.23%	24.88%	NA
Sales/Assets	0.39	0.43	0.50	0.34	0.28	NA
Projected Sales Growth (F1/F0)	4.49%	4.32%	0.23%	-2.42%	-6.71%	7.57%
Momentum Score	F	-	-	B	B	C
Daily Price Change	1.00%	0.28%	-0.56%	1.38%	-0.19%	0.78%
1-Week Price Change	1.65%	-0.76%	0.21%	0.21%	-4.97%	-2.96%
4-Week Price Change	13.81%	8.33%	14.04%	23.30%	3.05%	3.02%
12-Week Price Change	0.36%	-5.43%	8.89%	-12.29%	-1.80%	-8.49%
52-Week Price Change	-3.27%	0.52%	5.87%	-23.41%	-5.44%	7.13%
20-Day Average Volume (Shares)	2,019,981	3,295,512	2,256,422	800,085	50,822,540	1,523,238
EPS F1 Estimate 1-Week Change	-0.10%	0.00%	0.00%	0.00%	0.15%	0.00%
EPS F1 Estimate 4-Week Change	0.80%	0.68%	1.00%	-1.67%	1.31%	0.00%
EPS F1 Estimate 12-Week Change	1.01%	0.92%	3.64%	-1.84%	0.82%	-1.40%
EPS Q1 Estimate Monthly Change	0.00%	-0.63%	0.00%	0.00%	-0.63%	NA

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	A
Growth Score	C
Momentum Score	F
VGM Score	C

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 a 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.