

Caterpillar Inc. (CAT)

\$156.66 (As of 10/08/20)

Price Target (6-12 Months): **\$159.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 06/26/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:B

Value: B

Growth: C

Momentum: A

Summary

Caterpillar's global retail sales fell 20% in August 2020, marking the ninth consecutive month of decline on weak demand amid the COVID-19 pandemic. The company's results this year are likely to be impacted by a weak backlog, disciplined spending at mining customers and weakness in non-residential construction. Estimates for Caterpillar's third quarter and current year have undergone negative revisions lately. However, the manufacturing sector seems to be coming out of the pandemic-induced crisis on gradual resumption of global economic activities and reopening of businesses. This will be a positive for Caterpillar. Further, the company's focus on cost reduction will help boost margins. Strong liquidity position, investments in expanded offerings and services, and digital initiatives including e-commerce will fuel growth.

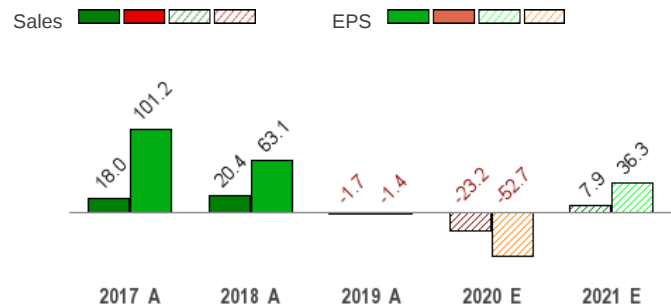
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$156.73 - \$87.50
20-Day Average Volume (Shares)	2,913,090
Market Cap	\$84.8 B
Year-To-Date Price Change	6.1%
Beta	1.05
Dividend / Dividend Yield	\$4.12 / 2.6%
Industry	Manufacturing - Construction and Mining
Zacks Industry Rank	Bottom 19% (205 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	56.1%
Last Sales Surprise	8.7%
EPS F1 Estimate 4-Week Change	0.6%
Expected Report Date	10/27/2020
Earnings ESP	-5.8%
P/E TTM	19.8
P/E F1	30.0
PEG F1	2.5
P/S TTM	1.8

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	11,171 E	11,316 E	11,117 E	12,760 E	44,587 E
2020	10,635 A	9,997 A	9,537 E	11,243 E	41,333 E
2019	13,466 A	14,432 A	12,758 A	13,144 A	53,800 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$1.75 E	\$1.70 E	\$1.74 E	\$2.10 E	\$7.13 E
2020	\$1.60 A	\$1.03 A	\$1.13 E	\$1.41 E	\$5.23 E
2019	\$2.94 A	\$2.83 A	\$2.66 A	\$2.63 A	\$11.06 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 10/08/2020. The reports text is as of 10/09/2020.

Overview

Caterpillar, known for its iconic yellow machines, is the largest global manufacturer of construction and mining equipment. Given that it serves a gamut of sectors - infrastructure, construction, mining, oil & gas and transportation, the company is considered a bellwether of the global economy.

Since 1925, Caterpillar's product portfolio has evolved and currently boasts 20 brands and generated revenues of \$53.8 billion in 2019. It has more than 4 million of products with an extensive dealer network of 165 dealers spanning 191 countries. Caterpillar started using telematics in the 1990's and reached its target of 1 million connected assets in 2019. The combination of innovation, cutting-edge technology, coupled with the formidable reputation, sets Caterpillar apart from its peers.

While a weak manufacturing sector, coronavirus impacted Caterpillar's stock price this year, it is the 74th-largest company in the S&P 500 Index with a market capitalization of \$84.8 billion. Caterpillar holds the 44th position in Fortune's "World's most admired companies" and 12th in the Dow Jones Industrial Average, with 3.63% weight of the index.

The Deerfield, IL-based company has six operating segments. **Machinery, Energy & Transportation (ME&T)** (94% of total revenues in 2019) includes

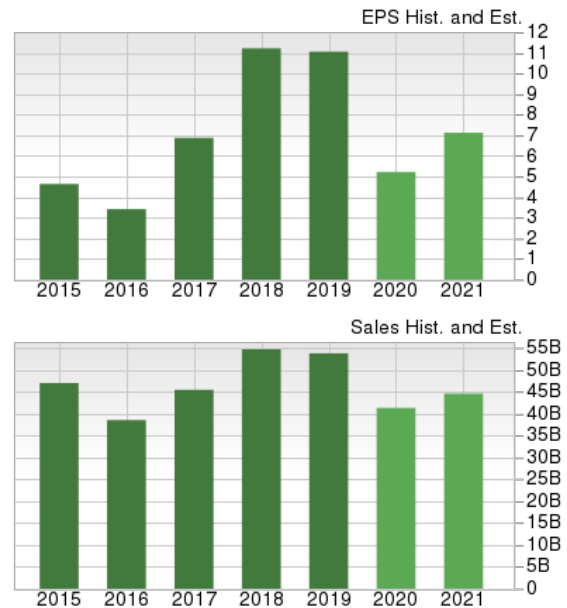
Construction Industries (38%) manufactures machinery utilized in infrastructure, forestry and building construction.

Resource Industries (18%) caters to customers using machinery in mining, quarry and aggregates, heavy construction, waste and material handling applications.

Energy & Transportation (45%) supports customers in oil and gas, power generation, marine, rail and industrial applications.

All Other Segments (1%) primarily comprise activities such as the re-manufacturing of CAT engines and components and re-manufacturing services for other companies and product management, development, manufacturing, marketing and product support.

Financial Products Segment (6%) provides retail and wholesale financing alternatives for Caterpillar products.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ Caterpillar continues to monitor end-user demand, commercial shipments, dealer inventory, orders and backlog and plans to adjust production levels accordingly. The company has been successful in reducing lead times, which enable both the company and dealers to adapt quickly to changing market conditions. The company is also making every effort to reduce production to match dealer demand and will proactively increase production once order levels improve.
- ▲ Per the Institute for Supply Management, the U.S Manufacturing Purchasing Managers' Index (PMI), was 55.4% in September following a 56% reading in August. Further, the index has been above 50 for four straight months, which denotes expansion. This is a major recovery from the PMI reading of 41.5% in April 2020 primarily due the COVID-19 crisis. This indicates that the sector seems to be coming out of the woods on gradual resumption of the global economic activities and reopening of businesses. A pick up in manufacturing activity will reflect on Caterpillar's results.
- ▲ Caterpillar's cash and liquidity position remains strong with the company ending second-quarter 2020 with cash and short-term investments of \$8.8 billion and available liquidity sources of \$18.5 billion. In July, Cat Financial issued \$1.5 billion of new three-year and 18-month medium-term notes to further supplement its liquidity position. The company currently has \$11.1 billion in long-term debt with no maturities in 2020 and less than \$1.4 billion in 2021. Caterpillar's current ratio is at 1.50. The company's times interest earned ratio is currently at 5.8. These figures indicate that the company is in a good position to meet its debt obligations. So far this fiscal, Caterpillar has returned \$2.3 billion to shareholders through dividends and share buybacks. Although the company has suspended buyback plans owing to the pandemic, it remains committed to maintaining its dividend.
- ▲ In September 2015, Caterpillar set out with significant restructuring and cost reduction initiative, which has now been substantially completed. The plan will likely lower annual operating costs by about \$1.5 billion. Caterpillar is focused on developing a more competitive and flexible cost structure and controlling discretionary spending. Caterpillar expects to double ME&T services sales to \$28 billion by 2026 and deliver higher adjusted operating margins through cycles of three to six percentage points above historical performance.
- ▲ In the wake of the coronavirus crisis, the company has taken actions to reduce costs including reducing discretionary expenses, suspending 2020 base salary increases and short-term incentive compensation plans for many employees and all senior executives. Effective Jul 1, the company reinstated 2020 base salary increases for employees except for the most senior executives. These efforts will help sustain margins amid low volumes.
- ▲ Caterpillar continues to focus on customers and on the future by continuing to invest in digital capabilities, connecting assets and jobsites along with developing the next generation of more productive and efficient products. The company plans to fund initiatives that drive long-term profitable growth focused on areas of expanded offerings and services and digital initiatives like e-commerce. In its GC line, the company has launched six new models in 2019 including excavators, articulated trucks, motor graders, wheel loaders and paving products and has plans to roll out five additional GC models this year. In 2019, Caterpillar achieved its target of connecting 1 million assets by year-end and boasts the largest fleets of connected assets in the industries it serves. Notably, connected products, such as CAT and non-CAT assets, provide rich data, including operating hours, location and product health, enabling customers to better manage and plan their maintenance.

Caterpillar will gain from cost control efforts and proactively managing production. Launch of new products, investment in expanded offerings and digital capabilities will also drive growth.

Reasons To Sell:

- ▼ Caterpillar had earlier withdrawn guidance for 2020 citing that the impact of the coronavirus outbreak on its financial and operating results cannot be reasonably estimated at this time. The company did not provide any guidance with the second-quarter results and stated that its financial results for the remainder of 2020 will bear the impact of the persistent global economic uncertainty due to the COVID-19 pandemic. In the early part of the year, Caterpillar had to suspend operations temporarily at certain facilities on account of supply chain issues, weak demand or as per government mandates to stem the spread of the coronavirus. Though currently all of the company's primary production facilities are operational, it may have to suspend operations temporarily again if necessary.
- ▼ At the end of second-quarter 2020, Caterpillar's order backlog was at \$12.9 billion, down \$1.2 billion from the first quarter. On a year-over-year basis, backlog declined by \$2 billion with decreases in all three primary segments. This does not bode well for third-quarter top-line performance. Also, in the first half of 2020, dealers have reduced inventory by about \$1.2 billion owing to weak demand amid the pandemic. The company anticipates dealers to lower their inventory by more than \$2 billion for the full year. This will weigh on the company's top line in the third and fourth quarter. For the third quarter, the company expects a reduction in sales to users of around 20%, consistent with the decline in the second quarter.
- ▼ In Resource Industries, weakness in non-residential construction and quarry and aggregate especially in North America will weigh on results. Commodity prices are mixed, with gold and iron ore prices remaining strong. Copper after bearing the brunt of weak industrial demand has recovered lately. Overall mining customers will remain disciplined with their capital expenditures this year due to the uncertainty, which in turn will impact Caterpillar's sales. In Energy & Transportation segment, demand will be particularly weak in the oil and gas sector on account of low oil prices and sluggish capital spending at customers end.
- ▼ The company's global retail sales recorded a decline of 20% in the three-month period ended August 2020 — levels last witnessed in February 2016. This can be attributed to weak demand thanks to the pandemic. This marks the ninth consecutive month that Caterpillar's global retail sales have been in the negative territory. The Resource Industries segment's sales declined 27% in August – the tenth consecutive month of negative growth. Sales in the Construction Industries segment were down 17%. The segment's sales have been declining for nine straight months. Sales in the Energy & Transportation segment declined 17%. The segment has been contracting for 11 consecutive months. Considering the uncertainty of the duration of the coronavirus pandemic and its overall impact on all sectors, Caterpillar's sales are likely to continue bearing the impact until the situation stabilizes.

Caterpillar's results will continue to bear the brunt of low demand due to the global economic uncertainty stemming from the coronavirus pandemic until the situation stabilizes.

Last Earnings Report

Caterpillar Q2 Earnings & Revenues Surpass Estimates

Caterpillar reported second-quarter 2020 adjusted earnings per share of \$1.03, which beat the Zacks Consensus Estimate of 66 cents by a margin of 56%. However, the bottom line plunged 64% from the prior-year quarter's adjusted earnings per share of \$2.83.

The disappointing performance was mainly due to lower demand across all segments and geographies. The company also did not provide any guidance for 2020 and stated that results for the remainder of the year will bear the impact of the coronavirus pandemic.

Including pre-tax remeasurement losses of 19 cents per share resulting from the settlements of pension obligations, Caterpillar's earnings per share came was 84 cents in second-quarter 2020, reflecting a decline of 70% from the prior-year quarter figure of \$2.83.

Low Demand a Drag on Revenues

The company's second-quarter revenues of \$10 billion surpassed the Zacks Consensus Estimate of \$9.2 billion. Nevertheless, the top line figure suffered a decline of 31% on lower sales volume. This was mainly due to low end-user demand amid the coronavirus pandemic and the impact from changes in dealer inventories. Dealers lowered machine and engine inventories about \$1.4 billion during the reported quarter against an increase of about \$500 million during the prior-year quarter.

The company witnessed decline in sales across the board. Sales in Latin America plunged 41% followed by a decline of 40% in North America. Sales in Asia Pacific and EAME were both down 17%.

Margins Dip on Lower Sales Volume

In second-quarter 2020, cost of sales decreased 28% year over year to \$7.1 billion. Manufacturing costs were favorable aided by lower period manufacturing costs. Gross profit contracted 36% to \$2.9 billion on lower sales. Gross margin was 28.8% in the reported quarter, down from 31.1% in the prior-year quarter.

Selling, general and administrative (SG&A) expenses decreased 10% to around \$1.18 billion. Research and development (R&D) expenses declined 23% to \$341 million from the prior-year quarter figure of \$441 million. Both SG&A and R&D expenses in the quarter benefited from reduced short-term incentive compensation expense and other cost reductions related to lower sales volumes.

Operating profit in the quarter was \$784 million, marking a slump of 65% from the prior-year quarter. Lower sales volume and unfavorable price realization, partially offset by favorable manufacturing costs and reduced SG&A and R&D expenses led to lower operating profits in the quarter. Operating margin was 7.8% in the reported quarter, down 750 basis points from the prior-year quarter.

Segment Performances Dented By Weak Demand

Machinery and Energy & Transportation sales tanked 32% year over year to \$9.3 billion. Construction Industries sales slumped 37% year over year to \$4 billion owing to lower sales volumes on account of lower end-user demand and the impact from changes in dealer inventories.

Sales at Resource Industries declined 35% year over year to around \$1.8 billion lower sales volume, owing to changes in dealer inventories and lower end-user demand. Demand for equipment supporting non-residential construction and quarry and aggregates was impacted in the quarter and spending on mining equipment was muted due to lower commodity prices. Sales of Energy & Transportation segment in the quarter were \$4.1 billion, reflecting a decline of 24% from the prior-year quarter on account of lower sales across all applications.

The ME&T segment reported operating profit of \$749 million, reflecting a slump of 66% from the year-ago quarter. The Resource Industries segment's operating profit fell 68% year over year to \$152 million in second-quarter 2020. Construction Industries segment's profit witnessed a year-over-year decrease of 58% to \$518 million. The Energy & Transportation segment's operating profit declined 30% year over year to \$624 million.

Financial Products' revenues went down 10% to \$687 million from the prior-year quarter. Financial Products' profits were \$110 million in the reported quarter, down 23% from \$143 million in the year-ago quarter.

Cash Position

For the first half of 2020, operating cash flow was \$2.5 billion compared with \$3.7 billion in the prior-year comparable period. Caterpillar ended second-quarter 2020 with cash and short-term investments of \$8.8 billion and available liquidity sources of \$18.5 billion. In July, Cat Financial issued \$1.5 billion of new three-year and 18-month medium-term notes to supplement its liquidity position.

Other Updates

Caterpillar stated that nearly all of its primary production facilities are operational currently. It has been taking actions to reduce costs, which will help sustain margins amid a weak demand backdrop. The company remains focused on making continued investment in services and expanded offerings, which are crucial to its strategy for profitable growth.

Earlier, on Mar 26, 2020 Caterpillar had withdrawn guidance for 2020 due to the uncertainty related to the impact of the pandemic. The company has not provided any guidance with this quarterly release as well. However, it cautioned that its financial results for the remainder of 2020 will bear the impact of the persistent global economic uncertainty due to the COVID-19 pandemic.

Quarter Ending	06/2020
Report Date	Jul 31, 2020
Sales Surprise	8.71%
EPS Surprise	56.06%
Quarterly EPS	1.03
Annual EPS (TTM)	7.92

Recent News

Caterpillar Inks Deal to Buy Weir Oil & Gas for \$405M

On Oct 5, Caterpillar has entered into an agreement with Weir Group PLC to acquire its Oil & Gas business for a cash price of \$405 million. The buyout will expand Caterpillar's offerings in the oil & gas market. Notably, the acquisition includes more than 40 Weir Oil & Gas manufacturing and services locations, and nearly 2,000 employees.

Based in Scotland, Weir Group is a global engineering company. Its Oil & Gas Division produces pumps, consumable parts, flow iron, wellhead and pressure control products. It provides pressure pumping, pressure control and after-market services to upstream oil and gas customers in North America and worldwide. This February, Weir Group announced its intention to divest the Oil & Gas division in line with its focus to become a mining technology pure play. Together, Weir Oil & Gas' pressure pumping and pressure control portfolio and Caterpillar's engines and transmissions will enable the latter to create additional customer value. Moreover, the buyout supports Caterpillar's commitment to invest for long-term growth through operational excellence as well as expanded offerings.

Caterpillar's August Retail Sales Down 20%

On Sep 15, Caterpillar announced that its global retail sales declined 20% in the three-month period ended August 2020, flat compared with July. The company had last reported a decline of this magnitude in February 2016. Notably, August marks the ninth consecutive month of global retail sales decline for the mining and construction equipment behemoth. The current downside can be attributed to overall weak demand primarily due to the COVID-19 pandemic.

North America fared the worst during August, reporting a slump of 35%, followed by Latin America, EAME and Asia Pacific, which witnessed declines of 16%, 4% and 1%, respectively.

The Resource Industries segment's sales declined 27% in August — 10th straight month of negative growth, and the worst performance so far in 2020. Sales in EAME went up 10%, which were offset by declines elsewhere. Sales in North America, Latin America and Asia Pacific were down 50%, 45% and 17%, respectively.

Sales in the Construction Industries segment were down 17%, a meager improvement from a decline of 20% in July. The segment's sales have been declining for nine straight months. Sales in North America and EAME were down 31% and 9%, respectively. Asia Pacific and Latin America reported growth of 6% and 5% in sales, respectively. While Latin America's sales returned to growth in August, the Asia Pacific segment has been witnessing a positive trend for the past four months.

Sales in the Energy & Transportation segment declined 16%. The segment has been contracting for 11 consecutive months. Sales to Industrial, Oil & Gas and Transportation sectors plunged 42%, 30% and 20%, respectively. Sales to the Power Generation sector's increased 14%.

Caterpillar Reports Retail Sales Decline of 20% in July

On Aug 14, Caterpillar announced that its global retail sales declined 20% in the three-month period ended July 2020, highlighting a slight improvement from the slump of 23% in June. North America fared the worst during the month, reporting a plunge of 38%, followed by Latin America and EAME, which witnessed declines of 11% and 2%, respectively. Asia Pacific was an outperformer, witnessing growth of 5%. Notably, this marks Asia Pacific's second consecutive month of positive growth mainly driven by the recovery in China.

The Resource Industries segment's sales declined 19% in July — the ninth straight month of negative growth. Notably, the segment reported a slump of 21% in June. Sales in EAME went up 25%, which was offset by declines elsewhere. Sales in North America, Latin America and Asia Pacific were down 49%, 21% and 7%, respectively. The segment's performance in EAME has been showing a gradual improvement in the past three months. The 25% growth in July marks the region's best performance so far this year

Sales in the Construction Industries segment were down 20%, a meager improvement from a decline of 23% in June. The segment's sales have been declining for eight straight months. Sales in North America, EAME and Latin America were down 35%, 11% and 5%, respectively. Asia Pacific was the only region to report growth of 10% in sales. The segment has been witnessing a positive trend in Asia Pacific for three straight months.

Sales in the Energy & Transportation segment declined 16%. The segment has been contracting for 10 consecutive months. Sales to Industrial and Transportation sectors plunged 43% and 26%, respectively. Sales to the Oil & Gas sector were down 19%, while the Power Generation sector's sales increased 8%.

Valuation

Caterpillar's shares have gone up 6.1% in the year-to-date period and up 27.7% over the trailing 12-month period. Stocks in the Zacks Manufacturing – Construction and Mining industry and the Zacks Industrial Products sector are up 5.1% and 5.2% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are up 27.0% and 20.3%, respectively.

The S&P 500 index is up 7.1% in the year-to-date period and up 17.6% in the past year.

The stock is currently trading at 23.48X forward 12-month earnings, which compares with 23.61X for the Zacks sub-industry, 23.24X for the Zacks sector and 22.52X for the S&P 500 index.

Over the past five years, the stock has traded as high as 32.58X and as low as 8.88X, with a 5-year median of 18.17X.

Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$159 price target reflects 24.64X Forward 12-month earnings.

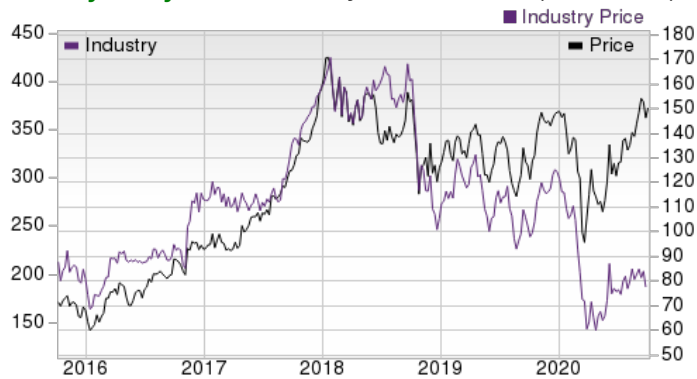
The table below shows summary valuation data for CAT:

Valuation Multiples - CAT					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	23.48	23.61	23.24	22.52
	5-Year High	32.58	30.83	23.24	23.47
	5-Year Low	8.88	9.47	12.55	15.27
	5-Year Median	18.17	18.4	17.68	17.7
P/S F12M	Current	1.93	1.58	3.12	4.14
	5-Year High	2.13	1.64	3.12	4.3
	5-Year Low	0.79	0.75	1.6	3.18
	5-Year Median	1.43	1.21	2.07	3.67
EV/EBITDA TTM	Current	12.01	10.44	20.59	15.1
	5-Year High	14.28	12.92	20.59	15.66
	5-Year Low	6.66	5.95	11.08	9.53
	5-Year Median	9.49	8.59	15.01	13.08

As of 10/08/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 19% (205 out of 252)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
DeereCompany (DE)	Outperform	1
Arcosa, Inc. (ACA)	Neutral	2
Astec Industries, Inc. (ASTE)	Neutral	4
CNH Industrial N.V. (CNHI)	Neutral	3
HE Equipment Services, Inc. (HEES)	Neutral	4
The Manitowoc Company, Inc. (MTW)	Neutral	3
Terex Corporation (TEX)	Neutral	3
Komatsu Ltd. (KMTUY)	Underperform	4

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

Industry Comparison Industry: Manufacturing - Construction And Mining				Industry Peers		
	CAT	X Industry	S&P 500	CNHI	DE	KMTUY
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Underperform
Zacks Rank (Short Term)	3	-	-	3	1	4
VGM Score	B	-	-	B	C	C
Market Cap	84.83 B	1.53 B	24.20 B	11.14 B	73.40 B	22.57 B
# of Analysts	10	3	14	6	9	2
Dividend Yield	2.63%	0.83%	1.6%	0.00%	1.30%	2.49%
Value Score	B	-	-	A	D	C
Cash/Price	0.11	0.11	0.07	0.56	0.13	0.11
EV/EBITDA	8.90	6.95	13.53	9.34	13.02	6.95
PEG F1	2.50	10.44	2.90	NA	3.85	12.38
P/B	6.16	1.85	3.54	1.88	5.69	1.31
P/CF	9.73	7.44	13.37	4.67	14.17	8.60
P/E F1	29.95	30.36	21.94	NA	31.47	31.58
P/S TTM	1.82	0.95	2.66	0.44	2.06	1.06
Earnings Yield	3.34%	3.22%	4.31%	-0.36%	3.18%	3.19%
Debt/Equity	1.95	0.58	0.70	4.13	2.64	0.24
Cash Flow (\$/share)	16.10	3.46	6.92	1.77	16.53	2.70
Growth Score	C	-	-	C	C	B
Historical EPS Growth (3-5 Years)	31.63%	13.04%	10.45%	18.18%	18.49%	13.74%
Projected EPS Growth (F1/F0)	-52.74%	-52.04%	-3.01%	-103.77%	-25.11%	-51.00%
Current Cash Flow Growth	-6.65%	-0.57%	5.47%	-1.24%	4.09%	-25.24%
Historical Cash Flow Growth (3-5 Years)	4.31%	2.40%	8.50%	2.82%	3.09%	2.40%
Current Ratio	1.50	1.70	1.35	6.74	2.26	1.70
Debt/Capital	66.14%	36.69%	42.90%	80.52%	72.53%	19.16%
Net Margin	8.90%	1.75%	10.28%	4.13%	7.61%	5.35%
Return on Equity	30.52%	6.70%	14.79%	5.58%	22.24%	6.57%
Sales/Assets	0.60	0.73	0.51	0.55	0.48	0.62
Projected Sales Growth (F1/F0)	-23.17%	-15.45%	-0.62%	-17.37%	-14.43%	-14.17%
Momentum Score	A	-	-	D	C	F
Daily Price Change	1.22%	1.34%	1.28%	1.10%	1.59%	0.22%
1-Week Price Change	2.76%	5.09%	2.13%	3.17%	2.53%	0.31%
4-Week Price Change	4.54%	6.66%	4.49%	-1.08%	8.89%	3.76%
12-Week Price Change	13.06%	15.81%	6.74%	11.49%	35.07%	9.22%
52-Week Price Change	27.69%	11.88%	6.65%	-19.59%	39.60%	4.08%
20-Day Average Volume (Shares)	2,913,090	240,737	2,121,744	1,822,081	1,585,785	52,711
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.37%	0.00%
EPS F1 Estimate 4-Week Change	0.64%	0.00%	0.00%	0.00%	0.37%	-1.34%
EPS F1 Estimate 12-Week Change	-1.56%	18.71%	3.47%	32.14%	22.51%	-31.52%
EPS Q1 Estimate Monthly Change	1.60%	0.00%	0.00%	0.00%	0.00%	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	B
Growth Score	C
Momentum Score	A
VGM Score	B

As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

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.