

Armstrong World (AWI)

\$78.25 (As of 11/18/20)

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

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 09/28/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

4-Sell

Zacks Style Scores:

VGM: C

Value: C

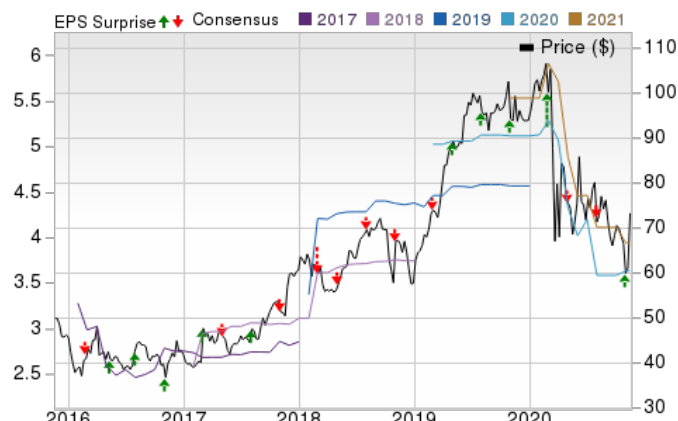
Growth: B

Momentum: C

Summary

Shares of Armstrong World have outperformed the industry over the past month. Increased focus on new products and systematic inorganic strategy to enhance its portfolio bode well. Notably, the acquisition of Moz Designs is likely to broaden the extensive portfolio of architectural specialties ceiling and wall solutions. Estimates for the year has moved north in the past 30 days, depicting analysts' optimism over the company's earnings prospects. However, lower volumes in both the Mineral Fiber and Architectural Specialties segments as a result of lower market demand due to the COVID-19 pandemic, as well as unfavorable Mineral Fiber AUV has been hurting the company. Furthermore, it expects revenue to decline for 2020, primarily due to lower volume.

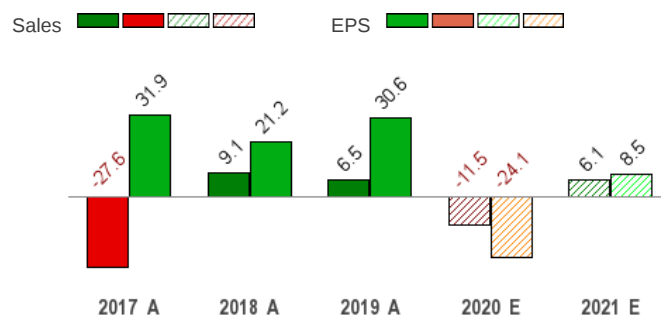
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$111.46 - \$57.96
20-Day Average Volume (Shares)	644,262
Market Cap	\$3.7 B
Year-To-Date Price Change	-16.7%
Beta	1.16
Dividend / Dividend Yield	\$0.84 / 1.1%
Industry	Building Products - Miscellaneous
Zacks Industry Rank	Top 44% (112 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	12.6%
Last Sales Surprise	6.8%
EPS F1 Estimate 4-Week Change	1.4%
Expected Report Date	02/22/2021
Earnings ESP	-3.9%

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	238 E	230 E	266 E	241 E	975 E
2020	249 A	203 A	246 A	227 E	919 E
2019	242 A	272 A	277 A	247 A	1,038 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.95 E	\$0.87 E	\$1.18 E	\$0.85 E	\$3.94 E
2020	\$1.10 A	\$0.75 A	\$1.07 A	\$0.73 E	\$3.63 E
2019	\$1.10 A	\$1.27 A	\$1.38 A	\$1.11 A	\$4.78 A

*Quarterly figures may not add up to annual.

P/E TTM	19.4
P/E F1	21.6
PEG F1	1.3
P/S TTM	4.0

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 11/18/2020. The reports text is as of 11/19/2020.

Overview

Armstrong World is a leading global producer of ceiling systems for use primarily in the construction and renovation of commercial, institutional and residential buildings. It designs, manufactures and sells ceiling systems (primarily mineral fiber, fiberglass wool, metal, wood, wood fiber, glass-reinforced-gypsum and felt) globally.

The company is based in Pennsylvania and was incorporated in 1891.

As of Sep 30, 2020, the company operated 15 manufacturing plants, out of which 13 were located in the United States, while two were in Canada. Armstrong World currently operates in three reporting segments — Mineral Fiber, Architectural Specialties and Unallocated Corporate.

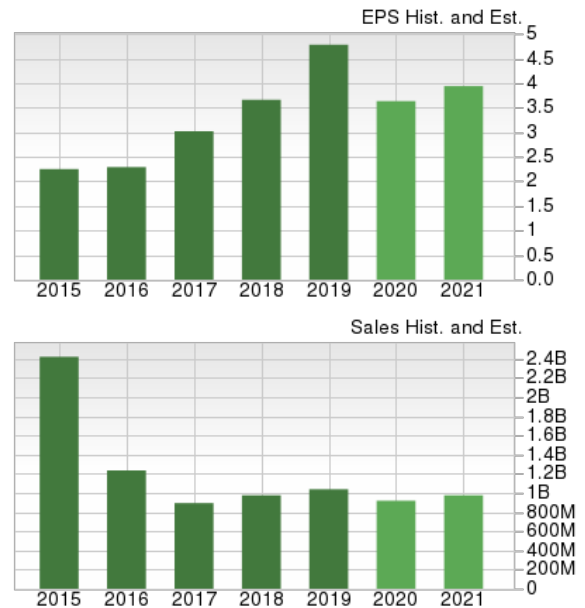
Mineral Fiber (accounting for 76% of third-quarter 2020 revenues) produces suspended mineral fiber and soft fiber ceiling systems for use in commercial and residential settings.

Architectural Specialties (24%) produces and sources ceilings and walls for use in commercial settings.

The Unallocated Corporate contains cash, debt, fully funded U.S. pension plan and certain other miscellaneous balance-sheet items.

On Jun 28, 2020, Armstrong World announced the acquisition of Turf Design, Inc., a Chicago-based commercial interiors design house, and maker of custom felt ceiling as well as wall solutions.

The company ended the third quarter of 2020 with \$454 million liquidity, including \$138.8 million cash and cash equivalents, and \$315 million of available capacity on the revolving credit facility.



Source: Zacks Investment Research

Reasons To Buy:

▲ **Inorganic Moves to Bolster Product Offering:** Armstrong World follows a systematic inorganic strategy to enhance its portfolio. On Aug 24, 2020, the company announced the acquisition of Moz Designs, Inc., a Northern California-based designer and fabricator of custom architectural metal ceilings, walls, dividers and column covers for interior and exterior applications. Notably, the buyout has been included as a component of the Architectural Specialties segment, thereby strengthening the portfolio of its metal ceiling facilities.

Armstrong World will gain from investment in new products as well as acquisitions.

On Jun 28, 2020, Armstrong World announced the acquisition of Turf Design, Inc., a Chicago-based commercial interiors design house and maker of custom felt ceiling as well as wall solutions. This buyout strengthens the company's design and manufacturing capabilities, as well as broadens the extensive portfolio of architectural specialties ceiling and wall solutions.

On November 2019, the company acquired MRK Industries, a manufacturer of specialty metal ceilings and walls. On Mar 4, 2019, the company acquired Architectural Components Group, Inc. ("ACGI"), a leading custom wood ceilings and walls solution provider.

The company wrapped up two additional acquisitions in Architectural Specialties, bringing the count to five in the last three years through 2019. Meanwhile, on Sep 30, 2019, it closed the divestiture of businesses and operations in Europe, the Middle East and Africa (including Russia), 'EMEA', and the Pacific Rim. That made the company an Americas-only business with minimal exposure to tariffs or the impact of coronavirus.

▲ **Enough Liquidity to Overcome Coronavirus Woes:** Armstrong World has been maintaining a strong liquidity position to navigate through the current environment. The company ended the third quarter with \$454 million in liquidity, which included \$138.8 million cash and cash equivalents and \$315 million of available capacity on the revolving credit facility.

As of Sep 30, 2020, the company's long-term debt totaled \$656.5 million compared with \$607.5 million as on Jun 30, 2020. However, the debt to capitalization at the quarter-end was 61.3%, slightly down from 62% at second-quarter end. Moreover, its current cash level is sufficient to meet the short-term obligation of \$25 million.

▲ **Investment in New Products:** Since its separation from the flooring business in 2016, Armstrong World has been strategically investing in new products, sales and support services, and advanced manufacturing capabilities. The company's new product launches include Sustain and Total Acoustics product families, and DESIGNFlex, which in turn fortified the Mineral Fiber category. Not just this, the company is also rolling out new digitally-enabled solutions like Revit families to its website for the DESIGNFlex products. In 2019, it introduced a digitally-enabled solution called Project Works.

Meanwhile, with the Flex line at the Marietta facility operating well, the company has automated the production of circles, triangles and trapezoids in any color. These launches have experienced extraordinary rates of adoption by architects, and the company expects the penetration of these products to continue in 2020 and beyond.

During the third quarter of 2020, the company unveiled a new family of products, namely, 24/7 Defend. Notably, the CleanAssure disinfectable product offers innovative solutions against harmful pathogens and other particles in indoor spaces. Moreover, the company launched new gasketed ceiling tile products, integrated with VidaShield ultraviolet air purification and ceiling tile system. Notably, the products are likely to reduce air leaks and increase the effectiveness of air ventilation and filtration systems, thereby ensuring greater air quality. Nonetheless, the company stated that there are other innovative products in the pipeline that are likely to be added to the 24/7 Defend family in the future.

Reasons To Sell:

- ▼ **COVID-19 Weighing on Results:** The recent economic slowdown owing to the COVID-19 outbreak generated significant market volatility and impacted the company's results. Armstrong World's third-quarter adjusted earnings and sales declined 22.5% and 11.1%, respectively, from a year ago mainly due to lower volumes in both Mineral Fiber and Architectural Specialties segments, thanks to COVID-19-induced lower market demand. The company's third-quarter volumes declined due to government shutdowns and project delays. Management highlighted that majority of the manufacturing facilities are now operational but large metro areas (New York) are still weak. Also, the company is witnessing delay in construction activities owing to the spread of the virus in south and mid-west regions.
- ▼ **Dismal Performance of Mineral Fiber Segment:** Volumes in the Mineral Fiber segment have been soft over the last few quarters. Segmental sales in the third quarter of 2020 fell 14.3% year over year owing to lower volumes and unfavorable average unit value ("AUV"). For second-quarter 2020, the segment sales declined 26.2%, given the above-mentioned headwinds. Also, in fourth-quarter 2019, Mineral Fiber volume was down 2% due to softness in the lower end of its product range that is directly connected to the big box channel, continued uneven R&R activity across various verticals and a weak economy in Canada. Soft volume in Mineral Fiber still remains a pressing concern, despite improvement in the same in first-quarter 2020.
- ▼ **Oil Price Volatility & Continued Geopolitical Uncertainty:** International markets that are closely linked to oil, such as the Middle East will be impacted by oil price volatility and continued geopolitical uncertainty in the region.

Coronavirus-led weakness and soft volumes in the Mineral Fiber segment remain causes of concern.

Last Earnings Report

Armstrong World Q3 Earnings Beat Estimates, Fall Y/Y

Armstrong recently reported third-quarter 2020 results, wherein earnings and revenues beat the Zacks Consensus Estimate. However, the top and the bottom line declined on a year-over-year basis owing to coronavirus-hit market demand.

Earnings & Revenue Discussion

Armstrong World reported adjusted earnings of \$1.07 per share, beating the Zacks Consensus Estimate of 95 cents by 12.6%. However, the bottom line declined 22.5% from \$1.38 reported in the year-ago quarter.

Net sales of \$246.3 million beat the consensus mark of \$231 million by 6.6%. However, the top line fell 11.1% year over year mainly due to lower volumes in both Mineral Fiber and Architectural Specialties segments due to COVID-19-hit market demand. Also, unfavorable Mineral Fiber AUV due to regional weakness in major metropolitan areas impacted by COVID-19 added to the woes. However, this was partially offset by positive sales impact of 2019 and 2020 acquisitions.

Operational Update

Gross margin during the third quarter came in at 37%, which contracted 330 basis points from the year-ago period. Selling, general and administrative (SG&A) expenses, as a percentage of net sales, increased a whopping 170 bps year over year to 16.6%.

Adjusted EBITDA fell 19.3% from the prior-year quarter to \$92 million, primarily due to lower sales volumes, unfavorable AUV and drop in WAVE earnings, partially offset by improved manufacturing productivity.

Segmental Performance

Mineral Fiber: The segment's sales fell 14.3% on a year-over-year basis to \$187.3 million due to lower volume and unfavorable AUV.

Operating income also decreased 43.9% from the prior-year quarter, attributable to lower volumes, WAVE earnings and unfavorable AUV, partially offset by improved manufacturing productivity along with reduction in incentive compensation expenses. Adjusted EBITDA also declined 20.6% from the prior-year quarter to \$79 million.

Architectural Specialties: Net sales in the segment grew 0.9% year over year to \$59 million owing to sales from the recently-acquired Turf Design and Moz Designs. However, this was offset by the pandemic-induced reduction in demand.

The segment's operating income and adjusted EBITDA decreased 21.6% and 8.7% from the year-ago level, respectively, owing to lower sales volume.

Financials

As of Sep 30, 2020, Armstrong World had cash and cash equivalents of \$138.8 million compared with \$45.3 million at 2019-end. Net cash provided by operations during the third quarter came in at \$69 million compared with \$74 million in the prior-year period.

The company's free cash flow (on an adjusted basis) came in at \$46 million compared with \$99 million in the year-ago quarter.

2020 Outlook

For 2020, the company expects operating income in the range of \$244 million to \$254 million. Meanwhile adjusted net income per diluted share is expected in the range of \$3.5 to \$3.7 per share. Adjusted free cash flow is anticipated in the range of \$200 million to \$210 million.

The company expects net sales for 2020 in the range of \$920 to \$935 million, while 2020 EBITDA is anticipated in the range of \$320-\$330 million.

Quarter Ending	09/2020
Report Date	Oct 27, 2020
Sales Surprise	6.79%
EPS Surprise	12.63%
Quarterly EPS	1.07
Annual EPS (TTM)	4.03

Recent News

Armstrong World Announces New Ceiling Solutions To Improve Air Quality – Oct 26, 2020

In a bid to contribute towards healthier, safer spaces and cleaner air, Armstrong World recently announced the launch of 24/7 Defend. This portfolio includes new AirAssure ceiling systems that prevent air leaks, and an in-ceiling ultraviolet (UV-C) air purification system.

Valuation

Armstrong World shares are down 18.5% in the year-to-date period and 16.7% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Construction sector are up 21.4% and 14.4% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are up 27.1% and 16.1%, respectively.

The S&P 500 index is up 11.2% in the year-to-date period and 15.3% in the past year.

The stock is currently trading at 16.98X forward 12-month earnings, which compares to 17.84X for the Zacks sub-industry, 17.39X for the Zacks sector and 22.41X for the S&P 500 index.

Over the past five years, the stock has traded as high as 22.06X and as low as 12.4X, with a 5-year median of 16.8X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$81 price target reflects 21X forward 12-month earnings.

The table below shows summary valuation data for AWI

Valuation Multiples - AWI					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	20.05	17.84	17.39	22.41
	5-Year High	22.06	19.33	18.99	23.47
	5-Year Low	12.4	7.16	10.77	15.27
	5-Year Median	16.79	13.85	16.04	17.72
P/S F12M	Current	3.87	1.46	2.14	4.18
	5-Year High	4.76	3.59	2.14	4.3
	5-Year Low	0.8	0.69	1.17	3.17
	5-Year Median	2.98	0.95	1.67	3.67
EV/EBITDA TTM	Current	6.91	21.42	24.07	15.91
	5-Year High	16.26	30.7	24.13	16.17
	5-Year Low	5.44	13.81	12.38	9.54
	5-Year Median	10.94	22.73	17.93	13.11

As of 11/18/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Top 44% (112 out of 254)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Simpson Manufacturing Company, Inc. (SSD)	Outperform	2
GCP Applied Technologies Inc. (GCP)	Neutral	2
Lumber Liquidators Holdings, Inc (LL)	Neutral	3
Quanex Building Products Corporation (NX)	Neutral	3
PGT, Inc. (PGTI)	Neutral	3
Construction Partners, Inc. (ROAD)	Neutral	2
Gibraltar Industries, Inc. (ROCK)	Neutral	3
Frontdoor, Inc. (FTDR)	Underperform	5

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

Industry Comparison Industry: Building Products - Miscellaneous				Industry Peers		
	AWI	X Industry	S&P 500	NX	ROCK	SSD
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Outperform
Zacks Rank (Short Term)	4	-	-	3	3	2
VGM Score	C	-	-	A	B	C
Market Cap	3.75 B	1.58 B	25.46 B	665.62 M	2.11 B	4.08 B
# of Analysts	4	3	14	1	1	2
Dividend Yield	1.07%	0.00%	1.51%	1.58%	0.00%	0.98%
Value Score	C	-	-	A	C	D
Cash/Price	0.04	0.09	0.06	0.06	0.09	0.08
EV/EBITDA	10.38	8.77	14.42	7.93	18.05	17.59
PEG F1	1.33	1.60	2.76	NA	NA	NA
P/B	8.46	1.92	3.55	1.96	2.83	4.25
P/CF	12.17	9.95	13.64	4.32	20.08	24.16
P/E F1	21.68	20.70	21.83	18.61	21.56	22.18
P/S TTM	3.96	1.54	2.79	0.80	1.88	3.30
Earnings Yield	4.64%	4.64%	4.41%	5.37%	4.64%	4.51%
Debt/Equity	1.53	0.45	0.70	0.45	0.00	0.08
Cash Flow (\$/share)	6.43	2.42	6.92	4.69	3.23	3.89
Growth Score	B	-	-	A	A	B
Historical EPS Growth (3-5 Years)	21.43%	17.93%	9.79%	7.21%	20.50%	22.94%
Projected EPS Growth (F1/F0)	-24.01%	8.66%	0.36%	9.00%	16.67%	42.11%
Current Cash Flow Growth	15.31%	-2.64%	5.39%	108.85%	15.67%	-4.69%
Historical Cash Flow Growth (3-5 Years)	3.83%	15.36%	8.31%	28.42%	21.12%	13.26%
Current Ratio	2.44	2.10	1.38	1.85	1.79	4.29
Debt/Capital	60.41%	33.09%	41.97%	30.91%	0.00%	7.24%
Net Margin	-7.85%	4.05%	10.41%	-1.75%	7.79%	14.99%
Return on Equity	49.60%	10.94%	15.05%	9.90%	14.01%	20.67%
Sales/Assets	0.60	1.02	0.50	1.23	1.09	1.02
Projected Sales Growth (F1/F0)	-11.48%	0.00%	0.16%	4.71%	9.61%	10.26%
Momentum Score	C	-	-	F	C	D
Daily Price Change	0.23%	0.00%	-1.09%	-1.22%	-0.83%	-2.03%
1-Week Price Change	20.06%	2.87%	4.23%	4.12%	3.68%	-1.17%
4-Week Price Change	13.97%	3.63%	5.95%	1.55%	-2.90%	-1.64%
12-Week Price Change	5.79%	8.70%	8.63%	24.40%	-1.62%	-6.20%
52-Week Price Change	-18.44%	9.90%	5.46%	6.96%	24.13%	16.42%
20-Day Average Volume (Shares)	644,262	185,937	2,211,978	142,245	201,803	246,241
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	1.40%	2.85%	1.67%	0.00%	2.38%	13.69%
EPS F1 Estimate 12-Week Change	1.40%	4.94%	3.56%	NA	2.38%	18.13%
EPS Q1 Estimate Monthly Change	-8.61%	1.49%	0.63%	NA	0.00%	0.78%

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	C
Growth Score	B
Momentum Score	C
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.

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

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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