ZACKS | Our Research. Your Success.

Mar 02, 2021

PPG Industries (PPG)

$137.85 (As of 03/01/21)

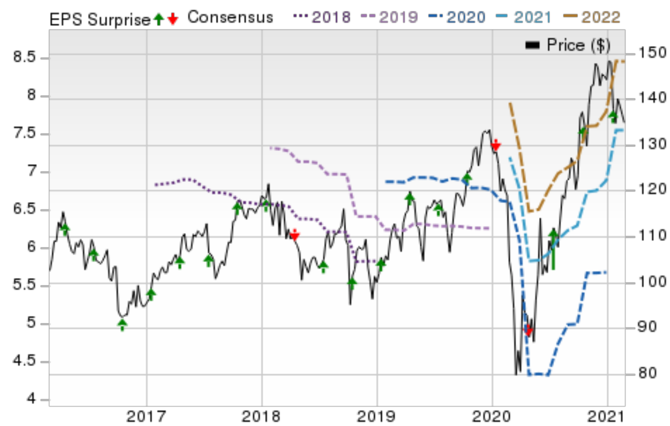
Price Target (6-12 Months): **$159.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 01/25/21) Prior Recommendation: Neutral	**Outperform**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**2-Buy**
	Zacks Style Scores:	VGM:B
	Value: B | Growth: B	Momentum: F

Summary

Earnings estimates for PPG Industries for the first quarter have been stable over the past month. The company has a diversified product offering and geographical presence. PPG Industries is executing an aggressive cost cutting and restructuring strategy. Cost savings from these restructuring efforts will act as a positive catalyst for the company and will likely support its margins in 2021. It is also taking steps to grow its business inorganically. The company's recent acquisitions will provide it with a broader range of technology as well as products to grow its business. Acquisitions including Industria Chimica Reggiana and Ennis-Flint are also expected to contribute to its sales this year. The company also remains committed to returning cash to shareholders through dividends and share repurchases.

Price, Consensus & Surprise

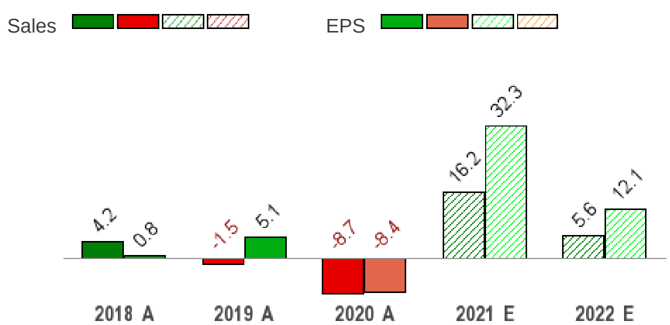


Source: Zacks Investment Research

Data Overview

52-Week High-Low	$153.81 - $69.77
20-Day Average Volume (Shares)	1,279,148
Market Cap	$31.9 B
Year-To-Date Price Change	-6.5%
Beta	1.13
Dividend / Dividend Yield	$2.16 / 1.6%
Industry	Chemical - Diversified
Zacks Industry Rank	Top 25% (62 out of 253)
Last EPS Surprise	1.3%
Last Sales Surprise	5.5%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	04/26/2021
Earnings ESP	0.0%
P/E TTM	23.7
P/E F1	18.3
PEG F1	3.5
P/S TTM	2.3

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2022	4,078 E	4,582 E	4,518 E	4,360 E	16,971 E
2021	3,692 E	4,081 E	4,315 E	4,171 E	16,073 E
2020	3,377 A	3,015 A	3,685 A	3,757 A	13,834 A

EPS Estimates

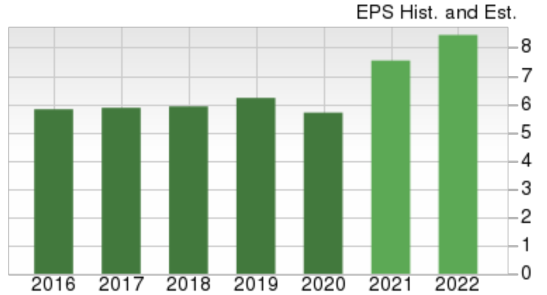
	Q1	Q2	Q3	Q4	Annual*
2022	$1.88 E	$2.40 E	$2.31 E	$1.97 E	$8.45 E
2021	$1.58 E	$2.08 E	$2.14 E	$1.75 E	$7.54 E
2020	$1.19 A	$0.99 A	$1.93 A	$1.59 A	$5.70 A

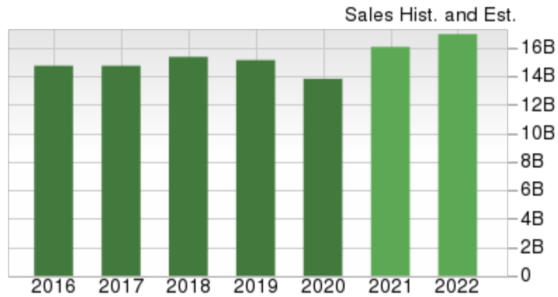
*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and sales estimates, is as of 03/01/2021. The report's text and the analyst-provided price target are as of 03/02/2021.

Overview

PPG Industries Inc., based in Pennsylvania, is a global supplier of paints, coatings, chemicals, specialty materials, glass, and fiber glass. The company has manufacturing facilities and equity affiliates in about 70 countries.





PPG Industries currently has two reportable segments: Performance Coatings and Industrial Coatings.

Performance Coatings: The division comprises refinish, aerospace, architectural coatings – Americas and Asia Pacific, architectural coatings – EMEA (Europe, Middle-East, and Africa), and protective and marine coatings operating segments. The segment primarily supplies a variety of protective and decorative coatings, sealants and finishes along with paint strippers, stains and related chemicals, as well as transparencies and transparent armor.

Industrial Coatings: The segment consists of the automotive original equipment manufacturer (OEM) coatings, industrial coatings, packaging coatings, and the specialty coatings and materials operating segments. The segment primarily supplies a variety of protective and decorative coatings and finishes along with adhesives, sealants, metal pretreatment products, optical monomers and coatings, precipitated silicas and other specialty materials.

PPG Industries recorded revenues of around $13.8 billion in 2020 with Performance Coatings and Industrial Coatings accounting for 61% and 39%, respectively.

PPG Industries is expanding inorganically through acquisitions. The company, in November 2014, completed its purchase of leading Mexican paint company – Consorcio Comex S.A. de C.V. – for $2.3 billion. Comex makes architectural and industrial coatings and related products in Mexico.

In January 2018, the company acquired Netherlands-based leading architectural paint and coatings wholesaler, ProCoatings. The buyout strengthens its architectural coatings Americas and Asia Pacific business within the Performance Coatings division. In January 2017, the company acquired certain assets of automotive refinish coatings company — Futian Xinshi — in the Guangdong province, China. The move enables the company to expand footprint in China.

Source: Zacks Investment Research

Reasons To Buy:

Cost savings from restructuring actions should aid to PPG Industries' margins. Acquisitions should also contribute to its sales. The company also remains committed to boost returns to shareholders.

- PPG Industries has a diversified business, both in terms of products offered and geographical presence. It has a leading position in several paints and coatings end markets. The company derives nearly a third of its revenues from emerging regions. This enables it to deliver growth to shareholders by tapping opportunities in fast growing regions.

- The company is executing an aggressive cost cutting and restructuring strategy. Cost savings from these restructuring efforts will act as a positive catalyst for the company. To improve its cost structure, PPG Industries has announced significant restructuring actions mainly focused on regions and end-use markets with the weakest business conditions. The company also approved substantial restructuring actions to lower its global cost structure. These include a voluntary separation program that was offered in the United States and Canada. Upon completion, PPG Industries anticipates the planned actions to offer $160-$170 million in annual pre-tax cost savings. The company delivered roughly $40 million of incremental structural cost savings from business restructuring programs in the fourth quarter of 2020, bringing full-year 2020 cost savings to around $115 million. Going forward, it expects to achieve additional restructuring savings of $30-$35 million in the first quarter of 2021 and $120-$125 million for full-year 2021.

- PPG Industries is taking steps to grow its business inorganically. The acquisition of the North American architectural coatings business of AkzoNobel expanded its scale in the North American architectural paint market. PPG Industries also purchased Netherlands-based ProCoatings and U.S.-based specialized automotive refinish products manufacturer, SEM Products in 2018. The company also completed the buyouts of Hemmelrath and Whitford Worldwide in 2019. The buyouts will provide the company with a broader range of technology and products to grow business. The acquisition of Dexmet Corporation also allowed the company to add value to its customers by enhancing product offerings as well as expanding research and development (R&D) capabilities. The company, in early 2020, also closed the acquisitions of Industria Chimica Reggiana and Alpha Coating Technologies. The recently completed acquisition of Ennis-Flint also helps PPG Industries to broaden opportunities in rapidly developing and high-growth mobility technology solutions. The company has also agreed to buy Tikkurila, Versaflex and Worwag. These buyouts are expected to significantly contributed to its sales in 2021.

- PPG Industries aims to boost shareholder returns with cash deployment. It has an impressive record of returning cash to shareholders through dividends and share buybacks. Notably, PPG Industries has raised its annual dividend payout for 49th straight year. In 2020, the company returned around $500 million to shareholders through dividends. It also had roughly $1.5 billion remaining on its current share repurchase authorization at the end of 2020.

Risks

- Headwinds from weak demand amid the outbreak of coronavirus are hurting the company's sales volumes. The company witnessed lower sales volumes in the Performance Coatings unit in the last reported quarter due to the decline in demand stemming from the pandemic. PPG Industries is seeing weak customer demand in automotive refinish and aerospace coatings businesses. Weaker demand due to lower miles driven is hurting volumes in automotive refinish. In the last reported quarter, the company saw lower year over year sales volumes for automotive refinish coatings. Demand in refinish is expected remain under pressure in the United States and Europe in the first quarter of 2021.

- The company is facing certain challenges in the aerospace business. Sales volumes in aerospace remain under pressure due to reduced customer builds and lower miles flown globally. Notably, aerospace coatings sales volumes fell around 30% in the last reported quarter, mainly impacted by lower commercial OEM builds and sluggish demand. The company expects lower sales volumes to continue in the first quarter of 2021 on reduced airline activities and customer builds. It is also seeing weak demand in the oil and gas sector.

- The company's high debt level is a concern. At the end of the fourth quarter of 2020, its long-term debt rose to $5,171 million from $4,828 million in the sequentially prior quarter and also increased 14% year over year. Further, its time-interest-earned ratio of 10.9 at the end of fourth-quarter 2020 fell from 11.1 in the prior quarter. As such, the company appears to have a higher default risk.

Last Earnings Report

PPG Industries Tops Earnings & Sales Estimates in Q4

Quarter Ending	12/2020
Report Date	Jan 21, 2021
Sales Surprise	5.49%
EPS Surprise	1.27%
Quarterly EPS	1.59
Annual EPS (TTM)	5.70

PPG Industries logged net income from continuing operations of $272 million or $1.14 per share in fourth-quarter 2020, down from the year-ago quarter's profit of $295 million or $1.23 per share.

Barring one-time items, adjusted earnings were $1.59 per share in the reported quarter, up from $1.31 logged in the year-ago quarter. The figure also topped the Zacks Consensus Estimate of $1.57.

Net sales rose roughly 2% year over year to $3,757 million. The figure surpassed the Zacks Consensus Estimate of $3,561.6 million. Sales volumes were down around 1.5% year over year, reflecting the impacts of the coronavirus pandemic in certain markets. Selling prices rose 1.5%.

The company benefited from higher year-over-year sales in its Industrial Coatings segment in the quarter, led by the automotive original equipment manufacturer, general industrial and packaging coatings businesses. It also witnessed strength in its global architectural coatings business.

FY20 Results

Adjusted earnings for full-year 2020 fell roughly 8% year over year to $5.70 per share, while net sales dropped 9% to $13.8 billion.

Segment Highlights

Performance Coatings: Net sales in the segment was around $2.2 billion in the fourth quarter, down around 1% year over year. Sales volume in the segment declined around 6% mainly due to lower demand resulting from the pandemic. Selling prices rose around 3%.

Segment income fell 3% year over year to $299 million. The downside was due to reduced sales volumes, partly offset by higher selling prices, restructuring initiatives and cost-mitigation efforts.

Industrial Coatings: Sales in the segment totaled around $1.6 billion, up around 7% from the prior-year quarter's figure. Sales volumes rose 5% year over year due to improved demand for automotive and general industrial coatings. Selling prices were flat year over year.

Net income in the segment totaled $282 million, up around 40% year over year. Results were driven by restructuring cost savings, higher sales volumes and favorable currency impact.

Financials

PPG Industries ended 2020 with cash and cash equivalents of $1,826 million, up roughly 50% year over year. Long-term debt rose around 14% year over year to $5,171 million.

The company generated record operating cash flow of about $2.1 billion for the full year. PPG Industries also paid around $500 million in dividends in 2020.

Outlook

Going forward, the company expects overall global coatings demand to continue to improve in many of its end-use markets and across all of its major regions. It expects overall global economic activities to strengthen in first-half 2021.

The company expects to gain from volume recovery in its technology-advantaged automotive refinish and aerospace coatings businesses, synergy realization and earnings accretion through integration of recently announced acquisitions and an eventual inventory restocking in specific industrial end markets.

Factoring in current global economic activities and the near-term economic uncertainty associated with the pandemic, PPG Industries expects total sales volume for the first quarter of 2021 to be flat to modestly higher, differing by business and region.

PPG Industries also expects to achieve total incremental cost benefits from restructuring measures of $30-$35 million in the first quarter.

The company also sees adjusted earnings for the first quarter to be $1.55-$1.61 per share. The mid-point of this range indicates an increase of more than 20% over the comparable year-ago figure of $1.31.

Recent News

PPG Industries Establishes Traffic Solutions Business

PPG Industries, on **Jan 13, 2021**, announced the launch of a new business unit Traffic Solutions, post the acquisition of Ennis-Flint that was completed in December 2020.

The unit is established for the production and supply of a broad, global portfolio of pavement-marking products, including paint, thermoplastics and other advanced technologies. It intends to serve consumers in government, military, contracting, commercial infrastructure, engineering and architecture.

As part of the Performance Coatings reportable segment, the business unit will join PPG Industries' Architectural Coatings, Aerospace, Automotive Refinish, and Protective and Marine Coatings strategic business units.

The traffic solutions unit will also associate with the company's mobility team to discover possibilities in the supply of unique coatings for infrastructure needs, which facilitate autonomous driving.

The new launch complements PPG Industries' portfolio and the company is excited about the new growth opportunities in traffic solutions segment. With the enhancement of existing mobility technologies, this unit will boost the company's capability to support infrastructure for safer driver-assisted and autonomous driving systems.

PPG Industries Buys Worwag, Expands Coatings Offerings

PPG Industries, on **Jan 11, 2021**, announced its definitive agreement to acquire Worwag, a global manufacturer of coatings for industrial and automotive applications. The deal is expected to be completed in the first half of the current year, subject to customary closing conditions.

Worwag specializes in developing sustainable liquid, powder and film coatings and has its operations spread across Germany, the United States, China, South Africa, Mexico, Spain, Switzerland and Poland. It is a family-owned company headquartered in Stuttgart, Germany. Founded in 1918, the company employs around 1,100 people worldwide. The annual revenues for 2020 are expected to be roughly 220 million euros.

Worwag's expertise in powder and liquid coatings for industrial and automotive applications complements PPG Industries' business and will enable it to expand its product portfolio. The inclusion of Worwag will boost PPG Industries' waterborne, direct-to-metal, liquid and powder coatings offerings and help expand current customer distribution in key geographies.

PPG Industries and Tikkurila Revise Agreement Terms

PPG Industries, on **Jan 6, 2021**, announced a revision in its earlier announced definitive agreement with Tikkurila to increase the cash offered for each share of Tikkurila stock. Under the agreement, PPG Industries will acquire all issued and outstanding stock of Tikkurila in an all-cash transaction.

Per the revised terms, Tikkurila shareholders will receive €27.75 in cash for each Tikkurila stock that they own, amounting to a total transaction value of around €1.24 billion. This includes the assumption of debt and cash.

The upside in the offer price is a result of Tikkurila's receipt of a proposal regarding a competing offer. The companies expect the offer for all outstanding shares to start on or around Jan15. The deal is expected to be completed by the second quarter of 2021, subject to customary closing conditions.

The Tikkurila buyout will expand PPG Industries' portfolio and provide customers with a wider range of paint and coatings options. The company expects to incorporate Tikkurila's high-quality, environment-friendly products with its renowned industrial coatings. The company will also benefit from Tikkurila's presence in several northern and eastern European countries, where it has minimal footing.

PPG Industries Buys Versaflex, Expands Product Offering

PPG Industries, on **Jan 5, 2021**, announced a definitive agreement to acquire coatings manufacturer, Versaflex. A portfolio company of DalFort Capital Partners, Versaflex specializes in coatings for water and waste water infrastructure, flooring, transportation infrastructure, and industrial applications.

The deal is expected to be completed in the first quarter of 2021, subject to customary closing conditions.

Versaflex is an aggregation of four U.S.-based coatings companies, with roughly 130 employees and expected annual revenues of around $70 million in 2020. It has three manufacturing sites in Kansas, Oklahoma and Washington.

This acquisition is anticipated to support PPG Industries' commitment toward broadening its technology portfolio and customer touchpoints. VersaFlex's strong growth outlook, segment mix, product portfolio, as well as manufacturing expertise are expected to complement and expand PPG Industries' current product offering.

PPG Industries Closes Ennis-Flint Buyout, Expands Portfolio

PPG Industries, on **Dec 24, 2020**, announced the completion of the acquisition of the global coatings manufacturer, Ennis-Flint.

Ennis-Flint is a leading provider of pavement markings and traffic safety solutions. The product portfolio is vast including traffic paint, thermoplastics, pavement markers and transportation systems.

It has roughly 1000 employees worldwide, with manufacturing facilities in the United States, Europe, South America, Australia and Asia. The company's 2020 revenues are expected to be $600 million, with EBITDA margins in mid-teens.

The acquisition helps PPG Industries to expand its product portfolio and broaden opportunities in rapidly developing and high-growth mobility technology solutions.

Valuation

PPG Industries' shares are up 32.1% over the trailing 12-month period. Over the past year, the Zacks Chemical - Diversified industry and the Zacks Basic Materials sector are up 37.9% and 45.4%, respectively.

The S&P 500 index is up 29.2% in the past year.

The stock is currently trading at 15.79X trailing 12-month enterprise value-to EBITDA (EV/EBITDA) ratio, which compares to 12.7X for the Zacks sub-industry, 11.17X for the Zacks sector and 16.95X for the S&P 500 index.

Over the past five years, the stock has traded as high as 17.31X and as low as 8.04X, with a 5-year median of 11.99X.

Our Outperform recommendation indicates that the stock will perform above the market. Our $159 price target reflects 20.68X forward 12-month earnings per share.

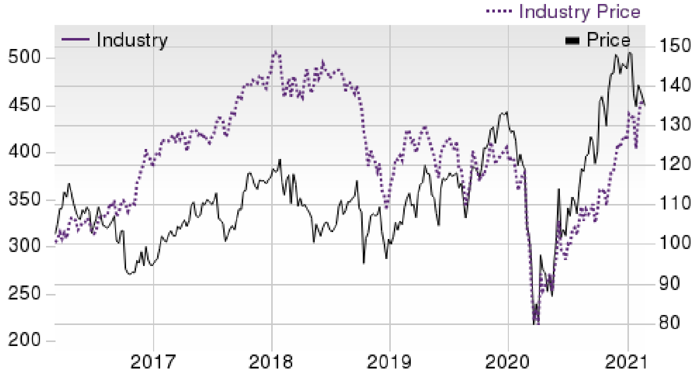
The table below shows summary valuation data for PPG:

Valuation Multiples - PPG

		Stock	Sub-Industry	Sector	S&P 500
EV/EBITDA TTM	Current	15.79	12.7	11.17	16.95
	5-Year High	17.31	13.57	18.38	17.54
	5-Year Low	8.04	5.19	6.46	9.63
	5-Year Median	11.99	7.69	9.71	13.29
P/E F12M	Current	17.92	16.47	11.11	22.01
	5-Year High	22.9	19.24	21.06	23.8
	5-Year Low	10.95	8.97	10.24	15.3
	5-Year Median	16.93	13.31	13.2	17.87
P/B TTM	Current	5.6	1.98	3.27	6.85
	5-Year High	6.49	2.82	3.46	7.07
	5-Year Low	3.17	0.87	1.22	3.84
	5-Year Median	5.24	1.75	2.25	4.97

As of 03/01/2021 *Source: Zacks Investment Research*

Industry Analysis **Zacks Industry Rank:** Top 25% (62 out of 253)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Akzo Nobel NV **(AKZOY)**	Neutral	3
Dow Inc. **(DOW)**	Neutral	2
Eastman Chemical Company **(EMN)**	Neutral	2
Ferro Corporation **(FOE)**	Neutral	3
Nippon Paint Holdings Co., Ltd. **(NPCPF)**	Neutral	3
RPM International Inc. **(RPM)**	Neutral	3
The SherwinWilliams Company **(SHW)**	Neutral	3
Axalta Coating Systems Ltd. **(AXTA)**	Underperform	3

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

Industry Comparison Industry: Chemical - Diversified

	PPG	X Industry	S&P 500	Industry Peers AKZOY	RPM	SHW
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	2	-	-	3	3	3
VGM Score	B	-	-	A	A	A
Market Cap	31.92 B	3.58 B	27.84 B	20.18 B	10.36 B	60.96 B
# of Analysts	8	3	13	3	7	11
Dividend Yield	1.60%	1.31%	1.43%	0.71%	1.91%	0.97%
Value Score	B	-	-	B	B	C
Cash/Price	0.06	0.11	0.06	0.09	0.03	0.00
EV/EBITDA	17.86	12.11	15.61	16.04	18.78	20.35
PEG F1	3.53	1.87	2.33	1.46	1.21	2.35
P/B	5.48	2.20	3.78	2.85	6.67	17.11
P/CF	17.49	10.95	15.65	18.61	18.92	22.10
P/E F1	18.28	18.01	20.41	19.68	18.78	25.00
P/S TTM	2.31	1.11	3.10	2.07	1.81	3.32
Earnings Yield	5.59%	5.55%	4.82%	5.09%	5.32%	4.00%
Debt/Equity	0.89	0.56	0.67	0.46	1.43	2.29
Cash Flow ($/share)	7.88	2.86	6.78	1.91	4.29	31.39
Growth Score	B	-	-	A	A	A
Historical EPS Growth (3-5 Years)	-1.04%	2.37%	9.32%	NA	6.06%	18.04%
Projected EPS Growth (F1/F0)	32.32%	21.22%	14.54%	19.37%	38.11%	10.69%
Current Cash Flow Growth	-6.48%	-11.63%	0.44%	-19.52%	9.79%	6.37%
Historical Cash Flow Growth (3-5 Years)	-1.43%	0.15%	7.37%	-6.50%	5.67%	17.82%
Current Ratio	1.41	1.95	1.39	1.68	2.17	1.00
Debt/Capital	47.07%	37.03%	41.42%	31.33%	58.93%	69.60%
Net Margin	7.66%	4.33%	10.59%	7.42%	7.50%	11.06%
Return on Equity	25.75%	9.59%	14.85%	12.13%	35.72%	60.37%
Sales/Assets	0.75	0.68	0.51	0.66	1.01	0.89
Projected Sales Growth (F1/F0)	16.18%	9.85%	6.76%	11.59%	8.38%	6.38%
Momentum Score	F	-	-	B	B	A
Daily Price Change	2.25%	1.93%	2.18%	2.06%	1.82%	1.98%
1-Week Price Change	-1.35%	-0.55%	-1.51%	-0.11%	-4.18%	-5.10%
4-Week Price Change	-0.53%	3.40%	5.45%	3.21%	-3.07%	-0.61%
12-Week Price Change	-4.87%	9.95%	6.76%	-1.72%	-6.52%	-2.29%
52-Week Price Change	30.90%	36.81%	20.60%	30.15%	22.83%	28.89%
20-Day Average Volume (Shares)	1,279,148	141,675	1,979,313	131,683	502,523	533,447
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	0.63%	0.30%	1.73%	-0.34%	0.74%
EPS F1 Estimate 12-Week Change	11.47%	7.68%	2.10%	3.72%	2.98%	1.75%
EPS Q1 Estimate Monthly Change	0.00%	1.43%	0.00%	0.00%	0.00%	0.13%

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	B
Momentum Score	F
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.

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 forwardlooking 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 mediumterm 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 mostrecent 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.