

International Flavors (IFF)

\$133.13 (As of 01/16/20)

Price Target (6-12 Months): **\$141.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/04/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

4-Sell

Zacks Style Scores:

VGM:C

Value: D

Growth: B

Momentum: D

Summary

For 2019, International Flavors & Fragrances guided adjusted earnings per share at \$4.85-\$5.05. The guidance range indicates an improvement of 8-11% from the prior-year. The global market for flavors and fragrances continues to grow fueled by robust demand for consumer products containing flavors and fragrances, which bodes well for the company. Recently, International Flavors has entered into a definitive merger agreement with DuPont's Nutrition & Biosciences business unit to form a new entity, focused on creating a leading global integrated solution. The company focuses on accelerating growth through organic investments and strategic acquisitions, while returning significant capital to shareholders. However, higher debt following the acquisition and unfavorable foreign currency impact are likely to hurt results.

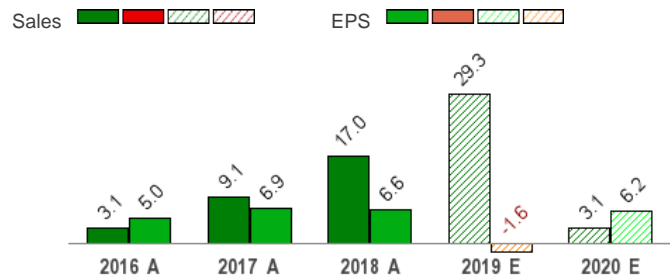
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$152.95 - \$104.86
20 Day Average Volume (sh)	904,526
Market Cap	\$14.2 B
YTD Price Change	3.2%
Beta	0.85
Dividend / Div Yld	\$3.00 / 2.3%
Industry	Consumer Products - Staples
Zacks Industry Rank	Bottom 15% (216 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	-0.7%
Last Sales Surprise	-1.6%
EPS F1 Est- 4 week change	0.0%
Expected Report Date	02/12/2020
Earnings ESP	0.0%
P/E TTM	23.7
P/E F1	20.3
PEG F1	NA
P/S TTM	2.8

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2020	1,335 E	1,342 E	1,319 E	1,316 E	5,299 E
2019	1,297 A	1,292 A	1,267 A	1,286 E	5,143 E
2018	931 A	920 A	908 A	1,219 A	3,978 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2020	\$1.66 E	\$1.75 E	\$1.65 E	\$1.49 E	\$6.56 E
2019	\$1.57 A	\$1.30 A	\$1.53 A	\$1.42 E	\$6.18 E
2018	\$1.69 A	\$1.66 A	\$1.54 A	\$1.22 A	\$6.28 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, except sales and EPS estimates, is as of 01/16/2020. The reports text and the analyst-provided sales and EPS estimates are as of 01/17/2020.

Overview

New York-based International Flavors & Fragrances Inc. (IFF), together with its subsidiaries, engages in the creation and manufacture of fragrance and flavor products in the United States and internationally.

International Flavors acquired Frutarom in October 2018, creating a global leader in natural taste, scent and nutrition with a broader customer base, more diversified product offerings and more exposure to end markets, including those with a focus on naturals and health and wellness. It now has more than 90,000 products within its portfolio, serving customers across 195 countries. The company reports its results in three segments:

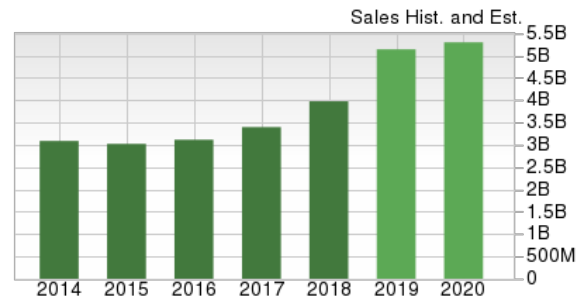
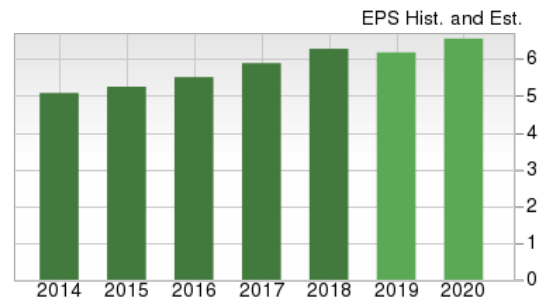
Taste segment (44% of net revenues in 2018) comprises Flavor Compounds which are sold to the food and beverage industries for use in consumer products, such as prepared foods, beverages, dairy, food and sweet products.

Scent (47% of net revenues in 2018) comprises Fragrance Compounds, which are ultimately used by customers in two broad categories — Fine Fragrances, including perfumes and colognes, and Consumer Fragrances, including fragrance compounds for personal care (soaps), household products (detergents and cleaning agents) and beauty care, including toiletries.

Fragrance Ingredients includes synthetic and natural ingredients which can be combined with other materials to create unique fine fragrance and consumer compounds.

Cosmetic Active Ingredients, consisting of active and functional ingredients, botanicals and delivery systems to support our customers' cosmetic and personal care product lines. Major fragrance customers include the cosmetics industry, including perfume and toiletries manufacturers, and the household products industry, including manufacturers of soaps, detergents, fabric care, household cleaners and air fresheners.

Frutarom (9% of revenues in 2018) creates and manufactures a naturals-focused suite of flavor compounds, functional foods and specialty fine ingredients, largely targeting small, local and regional customers. Frutarom's products are focused on three principal areas: Savory Solutions, Natural Product Solutions and Taste Solutions.



Reasons To Buy:

- ▲ International Flavors has reaffirmed its guidance for 2019. Sales are projected in the range of \$5.15-\$5.25 billion, representing year-over-year growth of 3-5%. Adjusted earnings per share are expected in the band of \$4.85-\$5.05, reflecting year-over-year growth of 8-11% in 2019. Adjusted earnings per share, excluding amortization, are anticipated in the band of \$6.15-\$6.35. The company has reaffirmed long-term financial targets for 2019-2021. On a currency neutral sales basis, it projects sales growth between 5% and 7% over the next three years and earnings per share (EPS) growth of 10%, excluding amortization.
- ▲ Robust growth is being witnessed among local and regional customers, almost twice that of global customers, which comprises the company's 50% customer base. Frutarom's tastes and flavor solutions were transitioned under legacy taste business unit. Further, focus to drive greater efficiencies throughout the business through costs and productivity initiatives, margin improvement, acquisition-related synergies and favorable taxes continue to drive overall profits. The company's productivity initiatives will enable the company to check costs, make strategic investments and expand businesses globally. In 2019, the company projects savings of \$50 million (higher than the prior expectation of \$40 million) to be achieved through streamlining overhead expenses (reducing non-strategic costs and eliminating redundant expenses), rationalization of global footprint and raw material harmonization.
- ▲ The global market for flavors and fragrances continues to grow propelled by increasing in demand for a variety of consumer products containing flavors and fragrances. The market is projected to grow approximately 2-3% by 2021, primarily driven by anticipated growth in emerging markets. Consequently, International Flavors & Fragrances is focused on gaining share in emerging markets. Over the past five years, the company's currency neutral sales growth rate in emerging markets has outpaced that of developed markets. Backed by the company's global presence, diversified business platform, broad product portfolio, global and regional customer base, it will be able to capitalize on the expansion in flavors and fragrances markets and deliver long-term growth.
- ▲ New business wins and a diversified product portfolio have worked in favor of International Flavors & Fragrances. Over time, the company has made meaningful acquisitions, which have helped expand offerings and in turn profitability. Last October, the company completed the acquisition of Frutarom, the largest deal in the industry to date. Together, International Flavors & Fragrances and Frutarom created a global leader in natural taste, scent and nutrition with a broader customer base, more diversified product offerings and more exposure to end markets, including those with a focus on naturals and health and wellness. The company anticipates generating cost synergies of \$145 million through 2019-2021. Synergies are expected to come from procurement, footprint optimization and streamlining of overhead expenses. In addition, the company identified initial cross-selling opportunities to drive top-line growth of \$100 million by 2021.
- ▲ International Flavors' Frutarom Division has completed the previously announced buyout of 60% share capital of Thailand-based leading savory solutions company — The Mighty CO. LTD. ("Mighty"). The deal is in sync with Frutarom Division's growth strategy in Southeast Asia. The Frutarom division also acquired 70% stake in San Marino, Italy-based Leagel, a leading producer of ice cream and gelato ingredients. Through the deal, International Flavors & Fragrances will create a global platform for the ice-cream ingredients business, expand geographical presence and leverage cross-selling opportunities. In June, the company has completed the acquisition of remaining 50% of the outstanding shares of Wiberg Corporation Inc. Following the acquisition, Wiberg Corporation will expand its offerings to customers by leveraging International Flavors' products and technologies.
- ▲ International Flavors & Fragrances continues to maintain a disciplined approach to capital allocation even as it focuses on accelerating growth through organic investments and strategic acquisitions, while returning significant capital to shareholders. At the third-quarter end, the company's net debt to EBITDA ratio was 3.4x, down from 3.6x as of the second-quarter end. The company also remains committed to bringing its net debt to EBITDA to less than 3.0x by the end of 2020.
- ▲ During the integration of Frutarom, the company was made aware of allegation that two Frutarom businesses operating in Russia and Ukraine had made certain improper payments to a number of customers. International Flavors reviewed the Russia and Ukraine allegations and has taken appropriate remedial actions including replacing senior management in relevant locations. It also conducted secondary review of Frutarom's operations in certain other jurisdictions. The company confirmed that the total affected sales accounts for less than 1% of International Flavors and Frutarom's combined net sales for 2018. Also, the impact of reviews including the associated costs associated is not anticipated impact its results.

Growing global demand for flavors and fragrances will continue to drive International Flavors' growth. It will also gain on cost cutting efforts, productivity initiatives and acquisitions.

Reasons To Sell:

- ▼ Continued geopolitical tension and uncertainties regarding trade wars and Brexit remain concerns. Also, unfavorable currency is anticipated to be a headwind on combined sales growth.
- ▼ Over time, the company has been grappling with the adverse impacts of rising costs and expenses. In the last five years (2014-2018), its cost of sales has witnessed a compound annual growth rate (CAGR) of 7% while adjusted selling, general and administrative and research and development expenses together have increased at a CAGR of 8%. We believe, if unchecked, higher costs and operating expenses are likely to prove detrimental to its margins and profitability.
- ▼ A highly leveraged balance sheet can inflate International Flavors & Fragrances' financial obligations, and subsequently, hurt its profitability. Following the debt raised to fund the Frutarom acquisition, the company borrowed \$3.3 billion of debt. The higher interest burden may have a negative impact of 67 cents per share on 2019 earnings per share.
- ▼ Market for the flavors and fragrances segment is fragmented and highly competitive. The company might not be able to combat the raw material inflation with price increases given the aggressive price competition, which would negatively impact its profits. Further, the company's presence in international markets (accounting for 75% of its net sales) has exposed it to currency-translation risks. Another cause of concern is that increasing awareness of health and wellness are driving changes in the consumer products industry. Consumers in developed economies such as the United States and Western Europe, are now shifting away from products containing artificial ingredients to all natural, healthier alternatives.

Rising costs and unfavorable foreign currency impact are likely to affect International Flavors' near-term results. Higher debt levels to fund the Frutarom acquisition remains a concern.

Last Earnings Report

International Flavors' Q3 Earnings & Sales Lag Estimates

International Flavors & Fragrances reported adjusted earnings of \$1.53 per share in third-quarter 2019, missing the Zacks Consensus Estimate of \$1.54. Also, the bottom-line figure declined 5.6% from the year-ago quarter's \$1.62. Growth in adjusted operating profit was more than offset by shares outstanding and higher interest expense related to the Frutarom acquisition.

Including one-time items, earnings per share in the quarter came in at \$1.13 per share compared with the \$1.17 recorded in the year-ago quarter.

In the reported quarter, International Flavors' net sales were \$1.27 billion, reflecting a year-over-year jump of 40%. The top-line figure, however, missed the Zacks Consensus Estimate of \$1.28 billion.

Quarter Ending **09/2019**

Report Date	Nov 04, 2019
Sales Surprise	-1.61%
EPS Surprise	-0.65%
Quarterly EPS	1.53
Annual EPS (TTM)	5.62

Operational Highlights

In the third quarter, International Flavors' cost of goods sold surged 45% year over year to \$734.3 million. Adjusted gross profit increased 35.6% year over year to \$530.6 million. Adjusted gross margin came in at 41.8% compared with the 43.1% witnessed in the year-ago quarter. Research and development expenses flared up 13% year over year to \$85 million. Adjusted selling and administrative expenses in the September-end quarter rose 37.8% year over year to \$196.4 million. Adjusted operating profit increased 22.2% year over year to \$201 million. Adjusted operating margin came in at 15.8% compared with the year-ago quarter's 18.1%.

Segmental Performances

Revenues in the Taste segment decreased 3%, year over year, to \$423.3 million during the July-September quarter. On a constant-currency basis, revenues slipped 2% year over year. Operating profit inched up 1% year over year to \$97.5 million. Despite strong business win, the segment's performance was adversely impacted by volume erosion.

Revenues generated in the Scent segment came in at \$480.4 million, up 2% year over year. On a constant-currency basis, revenues improved 3% year over year. Operating profit declined 4.5% year over year to \$83.5 million.

Last October, International Flavors completed the acquisition of Frutarom Industries Ltd. The Frutarom segment's revenues came in at \$363.7 million and operating profit was \$28 million during the quarter.

Financial Position

International Flavors had cash and cash equivalents of \$504 million as of Sep 30, 2019, significantly down from the \$5,274 million as of Sep 30, 2018.

Long-term debt fell to \$4,008 million as of Sep 30, 2019, from \$4,504 million as of Dec 31, 2018.

International Flavors generated \$383 million of cash from operating activities during the nine-month period ended Sep 30, 2019, compared with the \$202 million reported in the comparable period last year.

Capital invested in purchasing property, plant and equipment totaled \$160.4 million during the nine-month period ended Sep 30, 2019. Dividend paid totaled \$233.4 million during this period.

Outlook

International Flavors has reiterated its guidance for 2019. Sales are projected at \$5.15-\$5.25 billion. Adjusted earnings per share are expected in the band of \$4.85-\$5.05. Adjusted earnings excluding amortization are anticipated between \$6.15 and \$6.35. The company expects to achieve cost savings of \$50 million this year.

The company is focused on delivering solid top- and bottom-line results by creating value for shareholders through growth acceleration, margin expansion and integration.

Recent News

International Flavors Seals Merger Deal With DuPont Arm - Dec 15, 2019

International Flavors has entered into a definitive merger agreement with DuPont's Nutrition & Biosciences ("N&B") business unit to form a new entity, focused on creating a leading global integrated solution. The combined entity is valued at \$45.4 billion on an enterprise basis.

DuPont's Nutrition & Biosciences business offers solutions for home and personal care, food and beverage, dietary supplements, energy, animal nutrition and pharmaceuticals markets. It is one of the biggest producers of specialty ingredients. The division accounted for 29% of DuPont's third-quarter 2019 sales.

Transaction in Detail

Under the terms of agreement, DuPont shareholders will own 55.4% of the newly-formed company, while International Flavors shareholders will hold the remaining. Upon closing of the deal, DuPont will get a one-time cash payment of \$7.3 billion. The deal has been approved by the boards of both companies. The combination will be executed through a Reverse Morris Trust transaction.

Detailing of the New Entity

The new entity will be based in New York. It is expected to be a global leader in high-value ingredients and solutions for food and beverage, home and personal care, and health & wellness markets. The newly-formed company will have attractive positions across key growth categories, which include Taste, Scent, Texture, Nutrition, Enzymes, Cultures, Soy Proteins and Probiotics. With expanded global reach and enhanced capabilities, the company will be able to meet customers' increasing preference for natural and healthier products.

Besides, shareholders will benefit from a highly profitable business with strong cash flow. The company expects to register stellar top-line growth as well as enhanced margins, with further benefit from cost synergies and revenue growth.

Financial Benefits

The integrated company will have estimated current-year revenues of more than \$11 billion and EBITDA of \$2.6 billion. The company expects adjusted EBITDA margin of around 23% prior synergies and 26% with run-rate cost synergies based on estimated results for the ongoing year. Over the long term, the company expects mid-single digit revenue growth with solid cash-flow generation. Further, the new company will continue to maintain International Flavors' current dividend policy.

Moreover, International Flavors expects to realize cost savings of around \$300 million on a run-rate basis by the end of the third year after closing the transaction. In fact, these cost synergies will be driven by streamlining overhead, procurement excellence and manufacturing efficiencies. Additionally, the new entity's targeted cost-synergy to deliver more than \$400 million in run-rate revenue synergies would result in EBITDA of \$175 million, spurred by cross-selling opportunities and leveraging the extended capabilities across a broader range of customers. Also, International Flavors continues to maintain investment-grade rating.

Guidance

International Flavors has reiterated its guidance for 2019. Sales are projected at \$5.15-\$5.25 billion. Adjusted earnings per share are expected in the band of \$4.85-\$5.05. Adjusted earnings, excluding amortization, are anticipated between \$6.15 and \$6.35.

DuPont reaffirmed total annual revenue guidance at \$21.5 billion and adjusted earnings per share of \$3.77 to \$3.82. DuPont expects operating EBITDA to be at the lower end of the previously-guided range, due to temporary supply-chain disruptions in Safety & Construction (S&C) and Electronics & Imaging (E&I).

The transaction is likely to close by the end of the first quarter of 2021 upon approval by International Flavors' shareholders. Both companies have obtained fully-committed debt financing from Morgan Stanley and Credit Suisse. Upon the deal's closure, the new entity's board will consist of the seven current directors of International Flavors and six appointed by DuPont. International Flavors' chief executive officer Andreas Fibig will run the combined company and also continue to be the board chairman.

Valuation

International Flavor's shares are down 3.6% over the trailing 12-month period. Stocks in Consumer Products – Staples industry are down 11.5% while the Zacks Consumer Staples sector is up 16.4% over the past year.

The S&P 500 index has gained 22.2% in the past year.

The stock is currently trading at 20.28X forward 12-month earnings, which compares with 21.94X for the Zacks sub-industry, 19.91X for the Zacks sector and 18.96X for the S&P 500 index.

Over the past five years, the stock has traded as high as 26.92X and as low as 16.16X, with a 5-year median of 21.14X.

Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$141 price target reflects 21.47X forward 12-month earnings per share.

The table below shows summary valuation data for IFF:

Valuation Multiples - IFF					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	20.28	21.94	19.91	18.96
	5-Year High	26.92	21.94	22.38	19.34
	5-Year Low	16.16	13.74	16.66	15.17
	5-Year Median	21.14	17.97	19.76	17.44
EV/EBITDA TTM	Current	14.16	9.35	40.3	12.12
	5-Year High	20.02	19.99	44.94	12.86
	5-Year Low	12.23	3.68	31.54	8.48
	5-Year Median	14.96	12.79	38.33	10.67
P/B TTM	Current	2.34	11.34	18.19	4.5
	5-Year High	7.33	24.63	20.26	4.5
	5-Year Low	1.83	3.08	11.28	2.85
	5-Year Median	5.82	6.69	16.83	3.61

As of 01/16/2020

Industry Analysis Zacks Industry Rank: Bottom 15% (216 out of 254)



Top Peers

Conagra Brands Inc. (CAG)	Neutral
Church & Dwight Co., Inc. (CHD)	Neutral
The Clorox Company (CLX)	Neutral
Campbell Soup Company (CPB)	Neutral
The Estee Lauder Companies Inc. (EL)	Neutral
e.l.f. Beauty Inc. (ELF)	Neutral
Hershey Company (The) (HSY)	Neutral
The Kraft Heinz Company (KHC)	Neutral

Industry Comparison Industry: Consumer Products - Staples				Industry Peers		
	IFF Neutral	X Industry	S&P 500	CAG Neutral	CHD Neutral	CPB Neutral
VGM Score	C	-	-	B	C	B
Market Cap	14.22 B	3.23 B	24.61 B	15.72 B	17.59 B	14.51 B
# of Analysts	4	5	13	7	10	5
Dividend Yield	2.25%	0.00%	1.74%	2.63%	1.27%	2.91%
Value Score	D	-	-	B	D	C
Cash/Price	0.04	0.06	0.04	0.01	0.01	0.00
EV/EBITDA	23.50	16.86	14.24	16.04	20.52	14.82
PEG Ratio	NA	2.19	2.07	2.17	3.07	3.19
Price/Book (P/B)	2.34	3.45	3.38	2.04	6.87	11.61
Price/Cash Flow (P/CF)	19.49	12.35	13.75	12.80	24.87	12.68
P/E (F1)	20.33	19.58	19.09	15.19	26.69	18.96
Price/Sales (P/S)	2.80	1.78	2.68	1.49	4.10	1.64
Earnings Yield	4.93%	4.97%	5.24%	6.59%	3.75%	5.28%
Debt/Equity	0.66	0.68	0.72	1.21	0.71	5.37
Cash Flow (\$/share)	6.83	4.48	6.94	2.52	2.88	3.79
Growth Score	B	-	-	D	B	B
Hist. EPS Growth (3-5 yrs)	3.74%	3.50%	10.56%	-2.47%	11.23%	-0.30%
Proj. EPS Growth (F1/F0)	6.07%	6.21%	7.57%	5.76%	8.37%	10.26%
Curr. Cash Flow Growth	24.26%	8.53%	14.73%	10.04%	13.93%	-12.42%
Hist. Cash Flow Growth (3-5 yrs)	10.06%	4.69%	9.00%	-0.87%	7.92%	0.50%
Current Ratio	2.05	1.58	1.24	0.88	0.80	0.60
Debt/Capital	40.46%	45.72%	42.99%	54.72%	41.42%	84.30%
Net Margin	7.59%	2.66%	11.14%	7.62%	14.33%	2.07%
Return on Equity	10.39%	12.80%	17.16%	12.50%	24.91%	64.48%
Sales/Assets	0.39	0.97	0.55	0.47	0.68	0.66
Proj. Sales Growth (F1/F0)	3.05%	3.05%	4.16%	12.57%	5.91%	-12.79%
Momentum Score	D	-	-	B	D	C
Daily Price Chg	2.45%	1.24%	0.89%	1.16%	-0.22%	0.65%
1 Week Price Chg	-0.28%	-0.37%	0.39%	-4.53%	-0.24%	-1.45%
4 Week Price Chg	7.94%	2.49%	2.65%	-4.04%	3.15%	-0.27%
12 Week Price Chg	11.21%	4.95%	7.55%	19.23%	-5.37%	2.15%
52 Week Price Chg	-1.75%	-2.51%	22.12%	52.07%	6.37%	34.40%
20 Day Average Volume	904,526	407,141	1,536,375	4,403,364	1,270,282	1,813,933
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	0.00%	0.00%	0.00%	0.74%	-0.10%	0.00%
(F1) EPS Est 12 week change	-2.85%	-1.74%	-0.40%	0.51%	-1.09%	0.34%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	0.00%	-2.26%	0.00%	0.00%

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 have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	D
Growth Score	B
Momentum Score	D
VGM Score	C

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

Disclosures

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.