

Tyson Foods Inc. (TSN)

\$61.64 (As of 09/03/20)

Price Target (6-12 Months): **\$74.00**

Long Term: 6-12 Months

Zacks Recommendation:

Outperform

(Since: 08/06/20)

Prior Recommendation: Neutral

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:A

Value: A

Growth: A

Momentum: D

Summary

Although Tyson Foods' shares have underperformed the industry year to date, we expect the trend to improve in the near term. The company has been gaining on its brand strength, wide reach and ability to cater to evolving demand. Of late, it has been seeing rising pandemic-led demand in its retail channel. This, along with solid online sales and export market strength, aided third-quarter fiscal 2020 results, which were otherwise battered by soft foodservice volumes and high COVID-19 costs. During the quarter, both earnings and sales fell year over year. It expects to continue facing capacity utilization slowdown at its production facilities. Though the company is shifting focus toward retail, retail volume increases have not been enough to compensate for soft foodservice volumes. Thus, management expects volumes to drop in the fourth quarter.

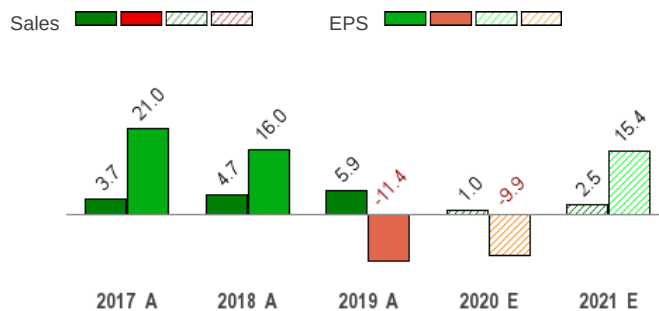
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$94.24 - \$42.57
20-Day Average Volume (Shares)	2,145,229
Market Cap	\$22.5 B
Year-To-Date Price Change	-32.3%
Beta	0.62
Dividend / Dividend Yield	\$1.68 / 2.7%
Industry	Food - Meat Products
Zacks Industry Rank	Bottom 10% (226 out of 251)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	55.6%
Last Sales Surprise	-5.5%
EPS F1 Estimate 4-Week Change	-0.6%
Expected Report Date	11/10/2020
Earnings ESP	6.0%
P/E TTM	12.2
P/E F1	12.5
PEG F1	3.2
P/S TTM	0.5

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	11,008 E	11,171 E	10,363 E	11,045 E	43,922 E
2020	10,815 A	10,888 A	10,022 A	11,110 E	42,835 E
2019	10,193 A	10,443 A	10,885 A	10,884 A	42,405 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$1.58 E	\$1.27 E	\$1.42 E	\$1.52 E	\$5.68 E
2020	\$1.66 A	\$0.77 A	\$1.40 A	\$1.12 E	\$4.92 E
2019	\$1.58 A	\$1.20 A	\$1.47 A	\$1.21 A	\$5.46 A

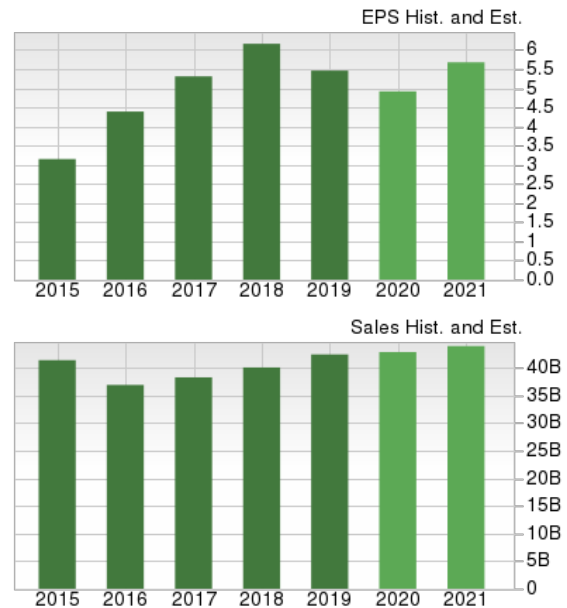
*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 09/03/2020. The reports text is as of 09/04/2020.

Overview

Headquartered in Arkansas, Tyson Foods Inc. was founded in 1935. It is the biggest U.S. chicken company and produces, distributes and markets chicken, beef, pork as well as prepared foods. Its products are marketed and sold primarily by sales staff to grocery retailers, grocery wholesalers, meat distributors, military commissaries, industrial food processing companies, chain restaurants, international export companies and domestic distributors.

- **Chicken** (31.3% of FY19 Sales): The operations of this segment comprise raising and processing live chickens into fresh, frozen and value-added chicken products, as well as sales from allied products.
- **Beef** (37.2% of FY19 Sales): This segment's operations include processing cattle and preparing dressed beef carcasses into meat cuts and case-ready products. The revenues from this segment also come from sales of allied products such as hides and variety meats. Allied products are marketed to manufacturers of pharmaceuticals and technical products.
- **Pork** (8.8% of FY19 Sales): This segment's operations comprise processing market hogs and preparing pork carcasses into meat products.
- **Prepared Foods** (19.8% of FY19 Sales): This segment's operations include manufacturing frozen and refrigerated food products, like pepperoni, bacon, pizza toppings, pizza crusts, tortilla products, appetizers, prepared meals, ethnic foods, soups, sauces, side dishes, meat dishes and processed meats.
- **International/Other** (3% of FY19 Sales): The segment includes foreign operations in Australia, China, South Korea, Malaysia, Mexico, the Netherlands, Thailand and the United Kingdom. Also, it includes third-party merger, integration costs and corporate overhead related to Tyson New Ventures, LLC.



Source: Zacks Investment Research

Reasons To Buy:

▲ **Robust Retail Demand, Solid E-Commerce Sales:** Although Tyson Foods' shares have lagged the industry year to date, we expect the trend to improve in the near term. Shares of the company have lost 31% year to date compared with the industry's decline of 11%. The company, which recently named Dean Banks as its new CEO, continues to see burgeoning demand in its retail channel, thanks to increased at-home consumption amid the pandemic. In third-quarter fiscal 2020, the company saw considerable demand for its key retail and branded products, with core retail line volumes rising more than 26%. The company witnessed higher demand at supermarkets, club stores and other retail channels. In fact, given the rising demand, the company has also shifted part of its foodservice production to concentrate on retail. Such efforts are yielding results. Apart from this, Tyson Foods is benefiting from its brand strength, robust geographical reach and ability to manufacture locally in its international markets and catering well to the evolving global demand.

Another channel performing well for Tyson Foods is e-commerce, which saw its sales double in the third quarter as more consumers are buying online amid the pandemic. Management expects e-commerce demand in the grocery and foodservice channel to remain high. The company expects continued strength in e-commerce channel.

Tyson Foods is benefiting from its brand strength, robust geographical reach and ability to manufacture locally in its international markets and catering well to the evolving global demand.

▲ **Focus on Protein-Packed Brands:** Tyson Foods remains focused on higher protein production to cater to the rising demand for protein-packed food. For fiscal 2021, USDA expects overall domestic protein production (chicken, beef, pork and turkey) to rise about 1% year over year. In the beef segment, USDA projects domestic production to grow about 3% in fiscal 2021. For pork, domestic production is likely to rise about 1%, per the USDA. In the Prepared Foods segment, the company expects to remain focused on responding to the changing consumer behavior as it goes into fiscal 2021. Finally, the company expects better results from its operations in the International/Other segment. Though management expects food and protein demand to shift among different sales networks and witness short-term hiccups amid the pandemic, worldwide demand is expected to increase over time.

To this end, Tyson Foods boasts a rich portfolio of protein packed brands that are growing rapidly across the globe. Additionally, the company has undertaken divestiture of non-protein businesses (such as Sara Lee Frozen Bakery, Kettle and Van's) so as to focus more on the growing protein-packed food arena. Apart from this, the company has been steadily expanding fresh prepared foods offering, owing to consumers rising demand for natural fresh meat offerings without any added hormones or antibiotics. In this respect, Tyson Foods' buyout of Tecumseh (June 2018) is quite noteworthy. The deal has added the popular air-chilled Smart Chicken brand along with a variety of chicken sausages, fresh and deli-style chicken to Tyson Foods' portfolio. Additionally, Tyson Foods has been venturing into alternative sources for meat and protein products, evident from the investment in Memphis Meats.

▲ **Export Markets & International Performance Strong:** Tyson Foods' exports to several parts of the world performed well in the third quarter of fiscal 2020. During the quarter, the company witnessed major strength in exports to Japan and Mexico. The company noted that lower hog supplies stemming from African swine fever present solid opportunities for U.S. exports as well as in-country production to cater to international demand. Also, a major part of the company's export sales includes items, which don't fit in traditional Americans' diet. Thus, exports help the company undertake optimum livestock utilization. The company expects export markets to remain strong for the beef and pork segments.

In the third quarter, International/Other segment sales were \$402 million, up 12.9% from \$356 million reported in the prior-year quarter. Sales volume improved 25%. The company's in-market performance was robust in China. Even in other countries where Tyson Foods operates, adversities from COVID-19 were lower than anticipated. In fiscal 2021, the company expects better results from its operations in the International/Other segment.

▲ **Strategic Acquisitions:** Tyson Foods has been focusing on acquisitions to expand portfolio and boost sales volumes. In particular, acquisitions are aiding the Chicken segment. We note that the company completed the acquisition of the European and Thai operations of BRF S.A. in June 2019. The buyout has strengthened Tyson Foods' footing in the Thai poultry space as well as expanded presence in the United Kingdom and Netherlands. Prior to this, on Nov 30, 2018, the company completed acquiring Keystone Foods business, which supplies a broad array of meat and chicken products internationally. This buyout has particularly been bolstering the company's Chicken as well as the International and Other segments' performances. The company has acquired a 40% ownership in Brazilian poultry producer and exporter, Grupo Vibra.

Other notable acquisitions of Tyson Foods in the past include; AdvancePierre, Original Philly Holdings, Hillshire as well as Mexican food restaurant chain, Don Julio Foods. Moreover, the company has acquired poultry rendering and blending assets of AMPRO Products, Inc. and American Proteins, Inc. The deal has enabled Tyson Foods to bolster animal products recycling capabilities, which will aid in expanding animal feed business.

▲ **Liquidity Status:** Even amid the coronavirus crisis, Tyson Foods remains financially sound enough to run its business and meet obligations. The company had solid liquidity of \$3.1 billion as of Jun 27, which increased \$600 million on a sequential basis on the back of robust operating cash flow. In the first nine months of fiscal 2020, cash provided by operating activities was \$2,708 million. Further, management expects total liquidity to stay above its minimum target of \$1 billion in the remainder of fiscal 2020. As of the end of the third quarter of fiscal 2020 (Jun 27, 2020), Tyson Foods' had current debt of \$750 million, while its cash and cash equivalents stood at \$1,365 million. At a juncture where companies are suspending dividends to preserve financial flexibility, Tyson Foods recently announced a quarterly dividend of 42 cents a share on its Class A shares, and 37.8 cents per share on Class B shares.

Risks

- **COVID-19 Hurts Q3 Results & Volumes Outlook:** Tyson Foods posted third-quarter fiscal 2020 results, wherein both earnings and sales declined year over year and the latter fell short of the Zacks Consensus Estimate. Sales were hurt by reduced volumes, which bore the brunt of major declines in the foodservice channel – somewhat compensated by rising demand for key retail and branded products. Further, results were affected by coronavirus-led reduced production across all segments stemming from team member shortages and other disruptions. Also, the company saw higher-than-usual operating costs in all segments due to the pandemic.

Tyson Foods expects to continue facing a slowdown in capacity utilization at its production facilities due to member shortages. Moreover, though every segment is seeing a demand shift from food service to retail, retail volume increases have not been enough to compensate for soft foodservice volumes. Consequently, management expects volumes to decline in the fourth quarter of fiscal 2020, especially in its Chicken and Prepared Foods units. In fact, constraints related to coronavirus are expected to weigh on volumes in the remainder of fiscal 2020 and also fiscal 2021.

- **Escalated Costs & Margin Concerns:** Tyson Foods is battling several hurdles related to the pandemic, which are expected to elevate its operating cost burden in the remainder of fiscal 2020 and also fiscal 2021. Even in third-quarter fiscal 2020, the company's gross profit slipped 1.7% to \$1,313 million. Further, adjusted operating income decreased 4.5% to \$760 million.

During the quarter, the company incurred \$340 million as direct incremental expenses associated with COVID-19. These include escalated costs related to workers' health, such as personal protection equipment, sanitization of production facilities, testing for coronavirus, various professional fees and bonuses to frontline workers. Apart from these, certain indirect COVID-19 costs like raw materials, transportation, underutilization and reconfiguration of plant, premiums offered to cattle producers and discounts on pricing dragged results. Persistence of these factors remains a threat to margins.

- **Chicken Unit Hurdles:** During the third quarter of fiscal 2020, sales in the segment dropped 6.6% to \$3,112 million due to adverse volumes and prices. Sales volume declined 4.2% on account of lower production and soft foodservice demand, somewhat countered by higher consumer product volumes. Average sales price in the quarter declined due to weak chicken prices stemming from tough market conditions. Notably, this segment was most impacted by COVID-19. The segment's operating income was also largely hurt by soft volumes, COVID-19 related costs and adverse mix stemming from shifting capacity to cater to retail channels. Though Tyson Foods adjusted parts of its production capacity to meet retail demand, foodservice losses have not been entirely offset. Though foodservice demand started recovering gradually in the fourth quarter, retail demand still remains stronger.
 - **Food Industry Headwinds:** The food industry is grappling with stiff competition and aggressive promotional environment. The company faces intense competition from other food companies on the grounds of quality, prices and availability. To meet such competitive pressure effectively, Tyson Foods may have to lower prices for its products or indulge in marketing activities to maintain market share.
-

Last Earnings Report

Tyson Foods Q3 Earnings Beat Estimates, Sales Miss

Tyson Foods posted third-quarter fiscal 2020 results. Nevertheless, earnings topped the consensus mark. Also, in a separate press release, management named Dean Banks as the company's new CEO, who will succeed Noel White on Oct 3. Notably, Banks will continue to serve as the company's president, while White will serve Tyson Foods as the executive vice chairman of the board of directors.

Adjusted earnings for the reported quarter were \$1.40 per share, beating the Zacks Consensus Estimate of 90 cents. However, the bottom line declined 5% year over year. Net sales declined 7.9% to \$10,022 million. Also, the top line fell short of the Zacks Consensus Estimate of \$10,605 million.

Gross profit for the quarter came in at \$1,313 million, down 1.7% from the prior-year quarter. Tyson Foods' adjusted operating income decreased 4.5% to \$760 million. During the quarter, the company incurred \$340 million as direct incremental expenses associated with COVID-19. These include escalated costs related to workers' health, such as personal protection equipment, sanitization of production facilities, testing for coronavirus, various professional fees and bonuses to frontline workers. Apart from these, certain indirect COVID-19 costs like raw materials, transportation, underutilization and reconfiguration of plant, premiums offered to cattle producers and discounts on pricing dragged results.

Segment Details

Beef: Sales in the segment dropped 12.1% to \$3,653 million. Sales volume declined 23.8% year over year due to reduced production throughout the quarter stemming from coronavirus. Also, a fall in live cattle harvest capacity due to a temporary facility closure for most parts of the first quarter due to a fire breakout hampered results. Average sales price saw a rise in the quarter, thanks to higher demand amid supply hurdles amid the pandemic.

Pork: Sales in the segment dropped 15.7% year over year to \$1,115 million. Sales volume fell 16.5% year over year due to reduced pandemic-led production, even though demand was robust and there was higher availability of live hogs. Average sales price rose due to the same factors that drove pricing in the beef segment.

Chicken: Sales in the segment dropped 6.6% to \$3,112 million. Sales volume declined 4.2% on account of lower production and soft foodservice demand, somewhat countered by higher consumer product volumes. Average sales price in the quarter declined due to weak chicken prices stemming from tough market conditions.

Prepared Foods: Sales in the segment slipped 2.6% to \$2,035 million. Prepared Foods' sales volume fell 6% as volume growth in the consumer products business was countered by softness in the foodservice channel and reduced production. Average sales price increased on account of favorable product mix and pass-through of higher raw-material costs.

International/Other: Sales in the segment were \$402 million, up 12.9% from \$356 million reported in the prior-year quarter. Sales volume improved 25%, whereas average sales price declined.

Other Financial Updates & Outlook

The company exited the quarter with cash and cash equivalents of \$1,365 million, long-term debt of \$11,270 million and total shareholders' equity (including noncontrolling interests) of \$15,004 million. In the first nine months of fiscal 2020, cash provided by operating activities was \$2,708 million. Management projects capital expenditure to be approximately \$1.2 billion for fiscal 2020 and fiscal 2021.

For fiscal 2021, USDA expects overall domestic protein production (chicken, beef, pork and turkey) to rise about 1% year over year. Management expects food and protein demand to shift among different sales networks and witness short-term hiccups amid the pandemic. Nonetheless, worldwide demand is expected to increase over time.

The company is battling several hurdles related to the pandemic, which are expected to elevate its operating cost burden and weigh on volumes in the remainder of fiscal 2020 and also fiscal 2021. Tyson Foods expects to continue facing a slowdown in capacity utilization at its production facilities due to member shortages. Moreover, though every segment is seeing a demand shift from food service to retail, retail volume increases have not been enough to compensate for soft foodservice volumes. Consequently, management expects volumes to decline in the fourth quarter of fiscal 2020, especially in its Chicken and Prepared Foods units.

While the company is unable to forecast the impacts of COVID-19 on its short and long-term demand, management said that it is well placed in terms of liquidity to run its business and meet obligations. The company expects its total liquidity to stay above the minimum target of \$1 billion.

In the beef segment, USDA projects domestic production to grow about 3% in fiscal 2021. In the fiscal, management anticipates adequate supplies in the markets where its plans operate. For pork, domestic production is likely to rise about 1%, per the USDA. Further, USDA forecasts domestic production in the Chicken segment to be flat to a slight increase from the fiscal 2020 level. In the Prepared Foods segment, the company expects to remain focused on responding to the changing consumer behavior as it goes into fiscal 2021. Finally, the company expects better results from its operations in the International/Other segment.

Quarter Ending	06/2020
Report Date	Aug 03, 2020
Sales Surprise	-5.50%
EPS Surprise	55.56%
Quarterly EPS	1.40
Annual EPS (TTM)	5.04

Recent News

Tyson Foods Declares Quarterly Dividend – Aug 6, 2020

Tyson Foods announced a quarterly dividend of 42 cents a share on its Class A shares, and 37.8 cents per share on Class B shares. The dividends are payable on Dec 15, 2020, to stockholders of record as on Dec 1.

Tyson Foods Pauses Facility Operations Due to Coronavirus – Apr 24, 2020

Tyson Foods is undertaking some concrete measures to ensure safety of its employees as the world continues to strive against the coronavirus menace. In this regard, the company announced that it will temporarily cease production at its beef facility located at Pasco, WA. This decision was caused by labor absenteeism, coronavirus cases as well as community concerns. Nevertheless, the members will be provided with compensation while the plant remains temporarily closed. In an earlier press release, Tyson Foods had undertaken similar decision to halt production at its Logansport, IN-based production facility to enable COVID-19 testing for workers. The Logansport facility which had suspended production for a day on Apr 20 for deep cleaning and sanitization has been operating at limited capacity since it reopened.

Earlier, Tyson Foods announced its decision to suspend production at its Waterloo, IA-based pork plant for an indefinite period. We believe that the decision to pause production at these plants is likely to affect the overall production at a juncture where consumer demand is increasing in grocery stores. Nevertheless, the company's other meat and poultry facilities are operational although a few of these plants are functioning at limited capacity due to labor absenteeism among other reasons. Notably, the company recently resumed operations at its pork plant in Columbus Junction, Iowa. The Iowa plant which was non-operational for two weeks due to coronavirus outbreak will run at limited capacity for now. Nonetheless, management expects to gradually increase manufacturing activities in this particular plant.

Also, Tyson Food has been implementing high-level deep cleaning and sanitizing at its facilities. Moreover, as social distancing is the key to contain COVID-19, it has installed dividers between workplaces to increase distance between employees. Additionally, Tyson Food's workers are required to use personal protective equipment like face covers as a precautionary measure to contain the spread of the coronavirus. Last month, Tyson Foods stated that it will pay around \$60 million as bonuses to its 116,000 frontline employees and Tyson truckers in the United States.

Valuation

Tyson Foods shares are down 31% in the year-to-date period and 25.9% over the trailing 12-month period. Stocks in the Zacks sub-industry are down 11% in the year-to-date period, while the Zacks Consumer Staples sector is down 2%. Over the past year, the Zacks sub-industry is down 11.8%, while the sector gained 0.3%.

The S&P 500 index is up 8.2% in the year-to-date period and 18.1% in the past year.

The stock is currently trading at 10.96X forward 12-month earnings, which compares to 18.47X for the Zacks sub-industry, 20.69X for the Zacks sector and 23.93X for the S&P 500 index.

Over the past five years, the stock has traded as high as 16.69X and as low as 6.76X, with a 5-year median of 12.44X. Our Outperform recommendation indicates that the stock will perform better than the market. Our \$74 price target reflects 13.16X forward 12-month earnings.

The table below shows summary valuation data for TSN

Valuation Multiples - TSN					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	10.96	18.47	20.69	23.93
	5-Year High	16.69	19.1	22.37	23.93
	5-Year Low	6.76	11.48	16.63	15.25
	5-Year Median	12.44	15.15	19.62	17.6
P/S F12M	Current	0.51	0.94	9.84	4.4
	5-Year High	0.76	1.11	11.15	4.4
	5-Year Low	0.35	0.63	8.12	2.53
	5-Year Median	0.61	0.94	9.89	3.07
EV/EBITDA F12M	Current	7.75	10.22	35.62	13.9
	5-Year High	10.32	19.94	37.28	14.11
	5-Year Low	6.03	7.49	25.87	9.15
	5-Year Median	8.27	9.87	33.72	11.04

As of 09/03/2020

Industry Analysis Zacks Industry Rank: Bottom 10% (226 out of 251)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Flowers Foods, Inc. (FLO)	Outperform	2
Tyson Foods, Inc. (TSN)	Outperform	3
BG Foods, Inc. (BGS)	Neutral	2
Beyond Meat, Inc. (BYND)	Neutral	3
Campbell Soup Company (CPB)	Neutral	3
Hormel Foods Corporation (HRL)	Neutral	3
Sanderson Farms, Inc. (SAFM)	Neutral	3
Pilgrims Pride Corporation (PPC)	Underperform	5

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

Industry Comparison Industry: Food - Meat Products				Industry Peers		
	TSN	X Industry	S&P 500	HRL	PPC	SAFM
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Underperform	Neutral
Zacks Rank (Short Term)	3	-	-	3	5	3
VGM Score	A	-	-	C	A	B
Market Cap	22.50 B	3.97 B	23.52 B	27.51 B	3.97 B	2.69 B
# of Analysts	5	3	14	6	2	1
Dividend Yield	2.73%	0.00%	1.62%	1.82%	0.00%	1.06%
Value Score	A	-	-	D	A	C
Cash/Price	0.06	0.06	0.07	0.06	0.13	0.03
EV/EBITDA	8.12	6.96	13.12	19.25	5.81	12.59
PEG F1	3.17	3.90	2.97	4.06	3.73	NA
P/B	1.50	1.50	3.20	4.39	1.67	1.92
P/CF	7.28	7.28	12.72	24.55	5.83	13.17
P/E F1	12.61	27.73	21.67	30.44	25.01	NA
P/S TTM	0.53	0.65	2.49	2.84	0.34	0.76
Earnings Yield	7.98%	3.28%	4.40%	3.28%	4.00%	-0.16%
Debt/Equity	0.75	0.13	0.70	0.17	1.10	0.07
Cash Flow (\$/share)	8.46	2.08	6.93	2.08	2.79	9.19
Growth Score	A	-	-	A	B	A
Historical EPS Growth (3-5 Years)	10.07%	-2.25%	10.41%	4.57%	-13.84%	-32.09%
Projected EPS Growth (F1/F0)	-9.93%	-9.99%	-4.75%	-3.74%	-59.88%	-107.57%
Current Cash Flow Growth	-3.73%	-5.88%	5.22%	-8.04%	16.70%	3.93%
Historical Cash Flow Growth (3-5 Years)	13.92%	3.13%	8.49%	8.67%	-4.98%	-8.98%
Current Ratio	1.80	2.39	1.35	2.39	1.89	2.79
Debt/Capital	42.91%	11.40%	42.95%	14.30%	52.42%	6.36%
Net Margin	4.26%	2.24%	10.25%	9.59%	2.24%	-0.64%
Return on Equity	12.63%	7.89%	14.59%	15.20%	7.89%	-4.15%
Sales/Assets	1.26	1.26	0.50	1.13	1.67	1.88
Projected Sales Growth (F1/F0)	1.01%	1.01%	-1.42%	2.86%	0.00%	2.62%
Momentum Score	D	-	-	D	A	D
Daily Price Change	-2.76%	-0.06%	-2.14%	-0.66%	1.06%	0.79%
1-Week Price Change	1.57%	1.09%	2.59%	-3.91%	4.41%	2.27%
4-Week Price Change	-1.31%	1.96%	2.25%	-0.37%	6.48%	8.14%
12-Week Price Change	2.99%	1.13%	11.04%	8.86%	-9.11%	1.13%
52-Week Price Change	-27.70%	-27.70%	2.01%	19.83%	-47.95%	-21.58%
20-Day Average Volume (Shares)	2,145,229	207,338	1,827,096	1,519,036	701,678	207,338
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	16.05%
EPS F1 Estimate 4-Week Change	-0.61%	1.21%	0.00%	1.21%	0.00%	17.24%
EPS F1 Estimate 12-Week Change	11.77%	1.21%	3.89%	1.21%	-64.29%	9.48%
EPS Q1 Estimate Monthly Change	-9.31%	-1.09%	0.00%	-2.17%	0.00%	-9.76%

Source: Zacks Investment Research

Zacks Style Scores

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

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

Value Score	A
Growth Score	A
Momentum Score	D
VGM Score	A

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

Disclosures

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

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

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

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

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

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

Additional Disclosure

This material represents an assessment of the market and economic environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. Forward-looking statements are subject to certain risks and uncertainties. Any statements that refer to expectations, projections or characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

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

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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