

## Papa John's(PZZA)

**\$82.28** (As of 09/30/20)

Price Target (6-12 Months): **\$87.00**

Long Term: 6-12 Months

**Zacks Recommendation:**
**Neutral**

(Since: 09/10/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

**Zacks Rank:** (1-5)

**3-Hold**

Zacks Style Scores:

VGM:A

Value: D

Growth: A

Momentum: A

## Summary

Shares of Papa John's have outperformed the industry so far this year. The outperformance can be primarily attributed to product innovation, strategic partnerships, international expansion and franchising initiatives. The company reported mixed second-quarter 2020 results, wherein earnings beat the Zacks Consensus Estimate while revenues missed the same. Moreover, the company is focusing on TV and digital spend (including sponsorship/venue spending) to drive new customer count. Also, the company is continually striving to eliminate barriers to expansion in existing international markets and identify new market opportunities. However, high debt and costs woes linger. Considering the panoptic impact of coronavirus (COVID-19) pandemic on its business and the industry, the company has withdrawn its fiscal 2020 guidance.

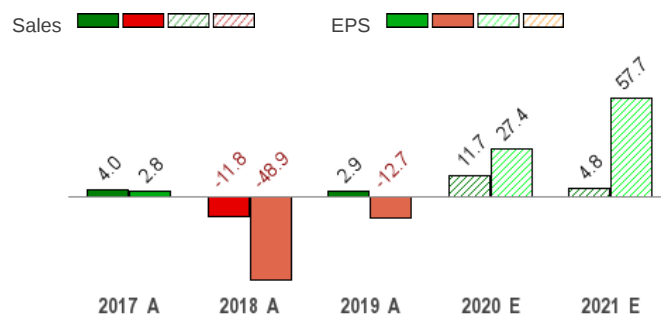
## Price, Consensus & Surprise



## Data Overview

|                                |                                |
|--------------------------------|--------------------------------|
| 52-Week High-Low               | <b>\$102.25 - \$28.55</b>      |
| 20-Day Average Volume (Shares) | <b>830,473</b>                 |
| Market Cap                     | <b>\$2.7 B</b>                 |
| Year-To-Date Price Change      | <b>30.3%</b>                   |
| Beta                           | <b>1.04</b>                    |
| Dividend / Dividend Yield      | <b>\$0.90 / 1.1%</b>           |
| Industry                       | <b>Retail - Restaurants</b>    |
| Zacks Industry Rank            | <b>Top 24% (59 out of 251)</b> |

## Sales and EPS Growth Rates (Y/Y %)



|                               |                   |
|-------------------------------|-------------------|
| Last EPS Surprise             | <b>20.0%</b>      |
| Last Sales Surprise           | <b>-0.7%</b>      |
| EPS F1 Estimate 4-Week Change | <b>2.1%</b>       |
| Expected Report Date          | <b>11/04/2020</b> |
| Earnings ESP                  | <b>0.0%</b>       |
| P/E TTM                       | <b>68.0</b>       |
| P/E F1                        | <b>55.2</b>       |
| PEG F1                        | <b>4.4</b>        |
| P/S TTM                       | <b>1.6</b>        |

## Sales Estimates (millions of \$)

|      | Q1    | Q2    | Q3    | Q4    | Annual* |
|------|-------|-------|-------|-------|---------|
| 2021 | 461 E | 459 E | 468 E | 486 E | 1,894 E |
| 2020 | 410 A | 461 A | 471 E | 466 E | 1,808 E |
| 2019 | 398 A | 400 A | 404 A | 418 A | 1,619 A |

## EPS Estimates

|      | Q1       | Q2       | Q3       | Q4       | Annual*  |
|------|----------|----------|----------|----------|----------|
| 2021 | \$0.52 E | \$0.61 E | \$0.62 E | \$0.51 E | \$2.35 E |
| 2020 | \$0.15 A | \$0.48 A | \$0.43 E | \$0.38 E | \$1.49 E |
| 2019 | \$0.31 A | \$0.28 A | \$0.21 A | \$0.37 A | \$1.17 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 09/30/2020. The reports text is as of 10/01/2020.

## Overview

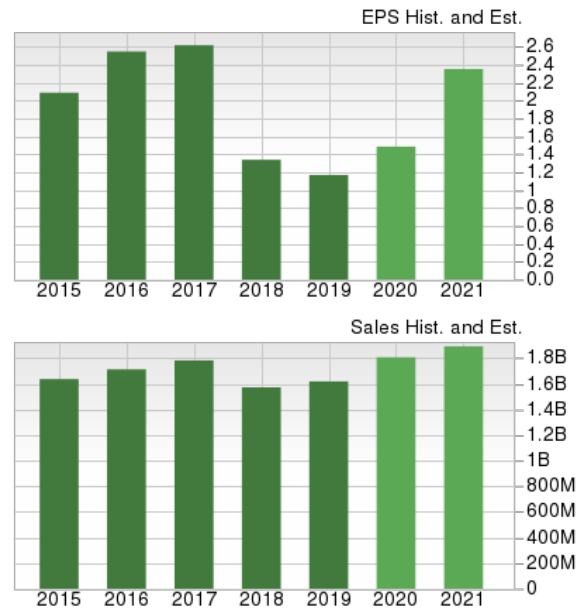
Headquartered in Louisville, KY, Papa John's began its operations in 1984. This Delaware Corporation, operates and franchises pizza delivery and carryout restaurants in the United States and other specific international markets. The company's dine-in and delivery restaurants operate under the brand name Papa John's.

As of Jun 28, 2020, there were 5,347 Papa John's restaurants operating in 49 countries and territories. Out of these, 598 were company-owned while the remaining 2,686 were franchised restaurants in North America. Meanwhile, 2,063 are operating internationally.

Papa John's reportable segments include domestic company-owned restaurants, domestic commissaries, North America franchising and international operations. North America encompasses operations in the United States and Canada. Domestic incorporates the adjoining areas of the United States. International franchisees are defined as all franchise operations outside of the United States and Canada.

Papa John's has been reeling under negative publicity for quite a long time, owing to the denouncement of its ex-CEO, John H. Schnatter, on grounds of a racial slur. Ever since Papa John's have been trying to make significant changes in its board and is trying to revive consumer sentiment.

Going by the current scenario, the company has managed to hire more than 20,000 new restaurant team members during second-quarter 2020 and intends to employ another 10,000 by the third quarter of 2020. To better its equation with customers, the company continues to help those affected by the pandemic. Notably, the initiatives are likely to drive long-term sustainable loyalty toward its brand even after the pandemic dies out.



Source: Zacks Investment Research

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## Reasons To Buy:

▲ **Strong Brand Building in Focus:** Papa John's is a leading take-out and pizza delivery restaurant chain in the world. As part of its clean label commitment, Papa John's was the first pizza delivery chain to announce the removal of preservatives such as BHA and BHT, flavor enhancer, MSG, cellulose, partially hydrogenated oils and high-fructose corn syrup. All these efforts reinforce the company's commitment to provide quality food and deliver better ingredients to its customers, and thereby living up to its strong brand commitment.

The company's continued international expansion plans, strategic partnerships, strong digital platform and various sales initiatives bode well

▲ **Product Launches to Drive Growth:** The company continues to focus on product introduction to drive growth. Notably, menu innovation like Garlic Parmesan Crust, toasted handheld Papadials and Jalapeno Popper Rolls continues to witness solid popularity among customers, thereby boosting the top line. Backed by better brand positioning, the new products have driven higher ticket and traffic across dayparts without cannibalizing core premium products and complexing operations at other stores.

Nonetheless, the product innovation pipelines are likely to be continued into the third quarter. In July 2020, the company in collaboration with Shaquille O'Neal (Papa John's Board member and restaurant owner) launched a new Shaq-a-Roni pizza. Markedly, the launch has turned out to be hugely popular among consumers and has generated more than \$2 million in charitable contributions.

▲ **International Expansion & Focus on Franchising:** Many of Papa John's restaurants are located in international markets like Europe, the Middle East, Latin America, Portugal and China, and continue to perform strongly. The China region continues to experience growth, driven by the company's optimized restaurant model, brand design enhancements and increased integration with third-party aggregators that is broadening its accessibility channels. Papa John's has inked developmental agreements in many regions including Mexico, Egypt, Russia, Spain, Chile, the Netherlands, Colombia and Boston. In 2019, it opened 233 international units, bringing the total number of open units to more than 2,100 stores across 48 countries outside the United States, including Portugal and Pakistan. The company added 92 net worldwide units in 2019. As of Mar 29, 2020, the company's development pipeline included 1,140 restaurants (90 units in North America and 1,050 units internationally), the majority of which are scheduled to open over the next six years.

Notably, Papa John's is committed to develop and maintain a strong franchise system. The company is continually striving to eliminate barriers to expansion in existing international markets and identify new market opportunities. Notably, in 2019, it re-franchised 46 company-owned restaurants — including 19 in Georgia and 23 restaurants in Florida — for \$4.74 million. Over the next several years, the company plans to increase its international units, a large portion of which will be franchised. We believe re-franchising a large chunk of its system reduces a company's capital requirements and facilitates earnings per share growth and ROE expansion. Alongside, free cash flow continues to grow, allowing reinvestment for increasing brand recognition and shareholder return.

▲ **Capitalizing on Technology to Boost Sales:** Papa John's is investing heavily in technology-driven initiatives like digital ordering to boost sales. The company's online and digital marketing activities have increased significantly over the past several years in response to increasing use of online and mobile web technology. In fact, Papa John's continues to reinforce its commitment toward providing a better customer experience with enhancements to its digital ordering process. The company further expanded its digital ordering capabilities with the launch of Facebook Instant Ordering and became the first national pizza chain to do so. It is also the foremost national restaurant chain to launch a custom ordering app for Apple TV, commence a nationwide digital rewards program and surpass 60% of the total U.S. sales via digital channels. Currently, the company has 100 corporate and franchise restaurants that enable customers to visually track delivery on a map. Notably, Papa John's announced that it has entered into a national partnership with UberEATS, and its existing fastest-growing door-to-door delivery service providers DoorDash and Postmates.

Meanwhile, Papa John's continues to invest in direct customer delivery. In March 2020, the company re-engineered its ordering and delivery process with the launch of no contact delivery. Notably, it drove substantial gains in its satisfaction metrics and delivered seamless customer experience during the second quarter.

▲ **Effective Changes in Marketing Mix and Tactics:** A change in marketing mix and tactics is driving new customers to the company and reactivating lapsed customers. The company is focused on TV and digital spend (including sponsorship/venue spending). In the fourth quarter of 2019, the company started buying TV ads in the upfront market allowing the advertisements to reach more customers with a significant increase in media impressions. During the second quarter of 2020, the company had more than 3 million new customers on its digital channels.

▲ **Solid Comps Growth:** The company recorded positive comparable sales growth in the second quarter of 2020, which marks the second straight quarter of comps growth. Global restaurant sales climbed 19.1% against the year-ago quarter's fall of 3.8%. Also, domestic company-owned restaurant comps rose 22.6% in the reported quarter against a 6.8% decline in the year-ago quarter.

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## Reasons To Sell:

- ▼ **Withdraws 2020 Outlook Due to Coronavirus:** Considering the panoptic impact of coronavirus (COVID-19) pandemic on its business and the industry, the company has withdrawn its fiscal 2020 guidance. Of the company's 2,100 international franchised stores, approximately 225 are temporarily closed (mostly in parts of Europe and Latin America) in accordance with government policies.
- ▼ **High Debt a Concern:** A strong balance sheet will help a company tide over the ongoing crisis. As of Jun 28, 2020, the company had \$327.9 million of long-term debt, compared with \$342.6 million at the end of Mar 29, 2020. Although debt has declined marginally, the company's debt-to-capitalization at the end of second-quarter 2020 stands at 241%. Moreover, the company ended second-quarter 2020 with cash and cash equivalent of \$75.7 million, which may not be enough to manage the high debt level.
- ▼ **High Costs Hurt:** During the second quarter, the company witnessed high costs associated with product launch, marketing campaigns and other sales-building initiatives. Also, rise in food and other operating costs took a toll on margins. Notably, total costs for the second quarter 2020 increased 11.6% year over year to \$430.1 million from \$385.6 million reported in the prior-year quarter.
- ▼ **Affordable Care Act to Hurt Profits:** The Affordable Care Act, commonly known as Obamacare, is expected to have an adverse impact on restaurant operators. The Affordable Care Act required employers to extend health benefits. The law entails restaurants with 100 or more full-time equivalent employees to offer health care coverage to substantially all full-time employees and their dependents. Meanwhile, from 2016, these rules apply for employers with 50 to 99 full-time-equivalent employees. Moreover, the collapse of the Republican-led bill, which was intended to replace Obamacare, means that the Affordable Care Act is here to stay. This means that the restaurant operators will have to continue shouldering increased labor costs, which in turn will hurt margins.
- ▼ **Cutthroat Competition:** The restaurant space is highly competitive as numerous restaurant operators are ongoing advanced and prudent strategies to increase their sales. In fact, going by the current retail scenario, adapting to shifting demand has become a major precedence for retailers. Companies with continual digital innovation, focus on product customization, and launch and delivery of seamless consumer experience can only thrive in the competitive space. This puts a lot of pressure on Papa John's to continuously change its strategies in correspondence to the fickle consumer demand.
- ▼ **Soft International Performance a Concern:** The company has been generating soft revenues over the last several quarters in the International segment. In 2019, its international revenues declined 6.7%. Papa John's, which has a significant international presence, is exposed to unfavorable fluctuations in currency. Also, the International segment's revenues are hurt by the same. Currently, markets in the Middle East and Latin America are facing government closures as well as heavy restrictions on trade.
- ▼ **Valuation Looks Stretched:** Papa John's valuation looks a bit stretched compared with the industry average. Looking at the company's forward 12-month price-to-earnings (P/E) ratio, which is one of the most commonly used valuation ratios and is best suited for evaluating restaurants, investors might not want to pay any further premium. It currently has a forward 12-month P/E ratio of 53.18. Hence, the stock is relatively overvalued right now compared with its peers, as the industry's average P/E is 31.53.

The outbreak of coronavirus, high costs and a challenging sales environment remain potent headwinds.

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## Last Earnings Report

### Papa John's Q2 Earnings Beat Estimates, Increase Y/Y

Papa John's reported mixed second-quarter 2020 results, wherein earnings beat the Zacks Consensus Estimate, while revenues missed the same. The top and the bottom line increased on a year-over-year basis.

Adjusted earnings of 48 cents per share surpassed the Zacks Consensus Estimate of 40 cents by 20% and increased 300% from 16 cents reported in the prior-year quarter.

During the second quarter, total revenues of \$460.6 million missed the Zacks Consensus Estimate of \$463.9 million by 0.7%. However, the top line grew 15.3% on a year-over-year basis. Notably, the upside can be attributed to positive comparable sales in North America, higher royalties and commissary revenues from the United Kingdom as well as increased marketing fund revenues on an increase in national marketing fund contribution rate and higher online revenues.

### Global Restaurant Sales & Comps

In the second quarter, global restaurant sales rose 19.1% against the year-ago quarter's fall of 3.8%. Excluding foreign currency impact, global restaurant sales rose 20.8% against the year-ago quarter's decline of 2.6%.

Domestic company-owned restaurant comps moved up 22.6% in the reported quarter against a 6.8% decline in the year-ago quarter.

At North America franchised restaurants, comps rose 29.7% against a decline of 5.3% in second-quarter 2019. Also, comps at system-wide North America restaurants improved 28% against a 5.7% decline seen in the year-ago quarter.

Comps at system-wide international restaurants were up 5.3% compared with 0.3% growth in the prior-year quarter.

Nonetheless, for the first month of the third quarter (Jun 29-Jul 26, 2020), comparable sales at domestic company-owned, North America franchised and systemwide North America restaurants are estimated to grow 23.6%, 32.4% and 30.3%, year over year, respectively. Comps at system-wide international restaurants are estimated to grow 13.9% year over year.

### Operating Highlights

Total operating income in the second quarter was \$30.5 million compared with \$14.2 million in the year-ago quarter. Total costs and expenses amounted to \$430.1 million, up 11.6% from the prior-year quarter.

### Balance Sheet

As of Jun 28, 2020, cash and cash equivalents totaled \$75.7 million compared with \$27.9 million as on Dec 29, 2019. Long-term debt was \$327.9 million at the end of second-quarter 2020 compared with \$347.3 million at 2019-end.

Inventories at the end of the reported quarter increased to \$32.5 million from \$27.5 million on Dec 29, 2019. Free cash flow for the six months ended Jun 28, 2020, summed \$67 million compared with \$8.9 million in the year-ago period.

The company paid out cash dividends worth \$10.7 million in second-quarter 2020 and announced third-quarter 2020 cash dividend of approximately \$10.8 million. The third-quarter dividend will be payable on Oct 1, 2020.

### Unit Developments

During the second quarter, Papa John's opened nine restaurants in North America and exited 10, with the global restaurant count being 5,347. Currently, the company is operating in 48 countries and territories worldwide.

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| Quarter Ending   | 06/2020      |
|------------------|--------------|
| Report Date      | Aug 06, 2020 |
| Sales Surprise   | -0.71%       |
| EPS Surprise     | 20.00%       |
| Quarterly EPS    | 0.48         |
| Annual EPS (TTM) | 1.21         |

## Recent News

### Papa John's Reports Preliminary Comps, Stock Gains – Jun 30, 2020

Papa John's reported preliminary comparable restaurant sales for the five weeks and fiscal second quarter ended Jun 28, 2020.

For the five weeks ended Jun 28, comparable sales at Domestic company-owned restaurants, North America franchised restaurants, System-wide North America restaurants and System-wide international restaurants rose 18.5%, 26.3%, 24.4% and 6%, respectively. Markedly, in the month of June, the company not only witnessed double-digit sales growth in North America but also strong growth internationally.

For the fiscal second quarter (ended Jun 28), the metrics improved 22.6%, 29.6%, 28% and 5.3%, at Domestic company-owned restaurants, North America franchised restaurants, System-wide North America restaurants and System-wide international restaurants, respectively.

### Papa John's Spruces Up Menu With Launch of Shaq-a-Roni Pizza – Jun 29, 2020

In a bid to boost its pizza offerings, Papa John's recently announced its collaboration with its board member, entrepreneur and restaurant owner - Shaquille O'Neal -- for the launch of a new pizza, Shaq-a-Roni.

## Valuation

Papa John's shares are up 30.3% in the year-to-date period and 57.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and the sector are up 4.8% and 31.6%, respectively, in the year-to-date period. Over the past year, the Zacks sub-industry and the sector are up by 3.8% and 43.1%, respectively.

The S&P 500 index is up by 4.4% in the year-to-date period and 16.7% in the past year.

The stock is currently trading at 38.49x forward 12-month earnings, which compares to 31.15x for the Zacks sub-industry, 31.87x for the Zacks sector and 21.99x for the S&P 500 index.

Over the past five years, the stock has traded as high as 56.18x and as low as 18.04x, with a 5-year median of 28.31x. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$87 price target reflects 40.8x forward 12-month earnings.

The table below shows summary valuation data for PZZA.

| Valuation Multiples - PZZA |               |       |              |        |         |
|----------------------------|---------------|-------|--------------|--------|---------|
|                            |               | Stock | Sub-Industry | Sector | S&P 500 |
| P/E F12M                   | Current       | 38.49 | 31.15        | 31.87  | 21.99   |
|                            | 5-Year High   | 56.18 | 34.04        | 34     | 23.46   |
|                            | 5-Year Low    | 18.04 | 20.49        | 19.09  | 15.26   |
|                            | 5-Year Median | 28.31 | 23.07        | 23.57  | 17.67   |
| P/S F12M                   | Current       | 1.45  | 3.88         | 1.28   | 4.1     |
|                            | 5-Year High   | 1.86  | 3.93         | 1.32   | 4.3     |
|                            | 5-Year Low    | 0.68  | 2.81         | 0.84   | 3.18    |
|                            | 5-Year Median | 1.24  | 3.33         | 1.01   | 3.67    |
| EV/EBITDA TTM              | Current       | 20.81 | 20.92        | 19.51  | 14.57   |
|                            | 5-Year High   | 27.15 | 21.27        | 20.71  | 15.65   |
|                            | 5-Year Low    | 10.98 | 10.64        | 11.15  | 9.53    |
|                            | 5-Year Median | 16.69 | 14.39        | 12.97  | 13.06   |

As of 09/30/2020

Source: Zacks Investment Research

## Industry Analysis Zacks Industry Rank: Top 24% (59 out of 251)



Source: Zacks Investment Research

## Top Peers

| Company (Ticker)                       | Rec        | Rank |
|----------------------------------------|------------|------|
| BJs Restaurants, Inc. (BJRI)           | Outperform | 1    |
| Jack In The Box Inc. (JACK)            | Outperform | 1    |
| Dunkin Brands Group, Inc. (DNKN)       | Neutral    | 3    |
| DaveBusters Entertainment, Inc. (PLAY) | Neutral    | 3    |
| Red Robin Gourmet Burgers, Inc. (RRGB) | Neutral    | 3    |
| RESTAURANT GRP (RSTGF)                 | Neutral    | 3    |
| Carrols Restaurant Group, Inc. (TAST)  | Neutral    | 2    |
| The Wendys Company (WEN)               | Neutral    | 3    |

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

| Industry Comparison Industry: Retail - Restaurants |         |            |           | Industry Peers |            |           |
|----------------------------------------------------|---------|------------|-----------|----------------|------------|-----------|
|                                                    | PZZA    | X Industry | S&P 500   | DNKN           | RRGB       | WEN       |
| Zacks Recommendation (Long Term)                   | Neutral | -          | -         | Neutral        | Neutral    | Neutral   |
| Zacks Rank (Short Term)                            | 3       | -          | -         | 3              | 3          | 3         |
| VGM Score                                          | A       | -          | -         | D              | B          | D         |
| Market Cap                                         | 2.70 B  | 484.10 M   | 22.99 B   | 6.74 B         | 204.52 M   | 4.99 B    |
| # of Analysts                                      | 7       | 5          | 14        | 11             | 4          | 14        |
| Dividend Yield                                     | 1.09%   | 0.00%      | 1.65%     | 1.97%          | 0.00%      | 0.90%     |
| Value Score                                        | D       | -          | -         | D              | B          | C         |
| Cash/Price                                         | 0.03    | 0.15       | 0.08      | 0.09           | 0.12       | 0.08      |
| EV/EBITDA                                          | 40.56   | 11.72      | 13.09     | 18.44          | 4.72       | 17.53     |
| PEG F1                                             | 4.42    | 4.59       | 2.91      | 4.74           | NA         | 3.36      |
| P/B                                                | NA      | 2.22       | 3.22      | NA             | 1.08       | 10.31     |
| P/CF                                               | 27.10   | 8.65       | 12.81     | 21.72          | 1.71       | 18.97     |
| P/E F1                                             | 55.22   | 33.13      | 21.25     | 30.43          | NA         | 41.18     |
| P/S TTM                                            | 1.60    | 0.83       | 2.51      | 5.17           | 0.19       | 2.98      |
| Earnings Yield                                     | 1.81%   | 0.89%      | 4.44%     | 3.28%          | -83.97%    | 2.42%     |
| Debt/Equity                                        | -1.14   | 0.54       | 0.70      | -5.10          | 1.25       | 5.64      |
| Cash Flow (\$/share)                               | 3.04    | 1.81       | 6.92      | 3.77           | 7.72       | 1.18      |
| Growth Score                                       | A       | -          | -         | D              | C          | D         |
| Historical EPS Growth (3-5 Years)                  | -18.64% | 2.98%      | 10.45%    | 11.83%         | -24.46%    | 12.38%    |
| Projected EPS Growth (F1/F0)                       | 27.10%  | -23.84%    | -2.91%    | -15.09%        | -1,882.26% | -8.23%    |
| Current Cash Flow Growth                           | 8.17%   | 3.60%      | 5.47%     | 5.44%          | -15.30%    | -0.70%    |
| Historical Cash Flow Growth (3-5 Years)            | -2.98%  | 4.61%      | 8.52%     | 5.81%          | -0.74%     | -1.18%    |
| Current Ratio                                      | 0.98    | 1.01       | 1.35      | 1.60           | 0.52       | 1.42      |
| Debt/Capital                                       | NA%     | 52.36%     | 42.68%    | NA             | 55.58%     | 84.93%    |
| Net Margin                                         | 1.32%   | -1.44%     | 10.27%    | 16.79%         | -22.56%    | 6.70%     |
| Return on Equity                                   | -15.73% | -10.64%    | 14.74%    | -38.22%        | -52.03%    | 21.11%    |
| Sales/Assets                                       | 2.30    | 0.87       | 0.51      | 0.34           | 0.92       | 0.33      |
| Projected Sales Growth (F1/F0)                     | 11.66%  | 0.00%      | -0.66%    | -6.57%         | -31.05%    | 1.52%     |
| Momentum Score                                     | A       | -          | -         | C              | A          | D         |
| Daily Price Change                                 | -4.07%  | 0.00%      | 0.67%     | 1.30%          | 3.13%      | -0.25%    |
| 1-Week Price Change                                | -0.86%  | -1.64%     | -2.32%    | 3.70%          | -6.01%     | 1.84%     |
| 4-Week Price Change                                | -13.43% | -6.82%     | -4.51%    | 5.07%          | -0.38%     | 1.48%     |
| 12-Week Price Change                               | -6.78%  | 10.89%     | 5.70%     | 24.13%         | 50.57%     | 0.38%     |
| 52-Week Price Change                               | 57.05%  | -21.12%    | 3.48%     | 6.51%          | -59.73%    | 11.92%    |
| 20-Day Average Volume (Shares)                     | 830,473 | 336,207    | 2,145,455 | 786,942        | 974,500    | 3,081,218 |
| EPS F1 Estimate 1-Week Change                      | 0.00%   | 0.00%      | 0.00%     | 0.00%          | 0.00%      | 0.00%     |
| EPS F1 Estimate 4-Week Change                      | 2.12%   | 0.03%      | 0.00%     | 0.03%          | 2.02%      | 0.80%     |
| EPS F1 Estimate 12-Week Change                     | 16.87%  | 14.55%     | 4.07%     | 4.44%          | 5.25%      | 2.71%     |
| EPS Q1 Estimate Monthly Change                     | 32.16%  | 0.24%      | 0.00%     | 0.14%          | 5.54%      | 1.53%     |

Source: Zacks Investment Research

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## 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.

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### 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   | A |
| Momentum Score | A |
| 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.

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## Disclosures

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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.

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**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.

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**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.

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**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.