

## Snap Inc. (SNAP)

**\$63.64** (As of 02/05/21)

Price Target (6-12 Months): **\$67.00**

Long Term: 6-12 Months

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

(Since: 08/22/19)

Prior Recommendation: Outperform

Short Term: 1-3 Months

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

**3-Hold**

Zacks Style Scores:

VGM:C

Value: F

Growth: A

Momentum: B

## Summary

Snap reported impressive fourth-quarter 2020 results. Solid user growth was attributed to strong adoption of Augmented Reality (AR) Lenses, Discover content and Shows, which in turn drove the topline. Snap is benefiting from improving user engagement particularly in the 13-34-year-old demography, which is expanding its advertiser base. Additionally, expanding Snap original show content, as well as new features like Spotlight, Cartoon Lens and Bitmoji for Games is expected to boost active user engagement in the near term. Notably, shares have outperformed the industry year to date. However, increasing investments in content, AR-lenses and marketing may hurt profitability in the near term. Moreover, uncertainties related to the coronavirus pandemic, lack of revenue diversification and stiff competition from Facebook are major headwinds.

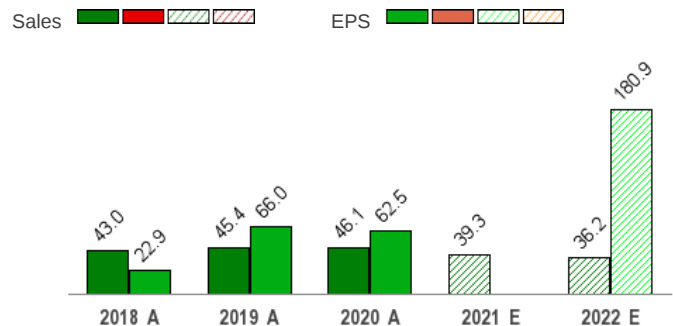
## Price, Consensus & Surprise



## Data Overview

|                                |                                    |
|--------------------------------|------------------------------------|
| 52-Week High-Low               | <b>\$64.44 - \$7.89</b>            |
| 20-Day Average Volume (Shares) | <b>18,916,740</b>                  |
| Market Cap                     | <b>\$94.8 B</b>                    |
| Year-To-Date Price Change      | <b>27.1%</b>                       |
| Beta                           | <b>1.28</b>                        |
| Dividend / Dividend Yield      | <b>\$0.00 / 0.0%</b>               |
| Industry                       | <b>Internet - Software</b>         |
| Zacks Industry Rank            | <b>Bottom 28% (181 out of 253)</b> |

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



|                               |               |
|-------------------------------|---------------|
| Last EPS Surprise             | <b>28.6%</b>  |
| Last Sales Surprise           | <b>7.5%</b>   |
| EPS F1 Estimate 4-Week Change | <b>7.0%</b>   |
| Expected Report Date          | <b>NA</b>     |
| Earnings ESP                  | <b>100.0%</b> |
| P/E TTM                       | <b>NA</b>     |
| P/E F1                        | <b>303.1</b>  |
| PEG F1                        | <b>NA</b>     |
| P/S TTM                       | <b>37.8</b>   |

## Sales Estimates (millions of \$)

|      | Q1    | Q2      | Q3      | Q4      | Annual* |
|------|-------|---------|---------|---------|---------|
| 2022 | 952 E | 1,075 E | 1,279 E | 1,547 E | 4,755 E |
| 2021 | 689 E | 765 E   | 903 E   | 1,102 E | 3,491 E |
| 2020 | 462 A | 454 A   | 679 A   | 911 A   | 2,507 A |

## EPS Estimates

|      | Q1        | Q2        | Q3       | Q4       | Annual*   |
|------|-----------|-----------|----------|----------|-----------|
| 2022 | \$0.07 E  | \$0.11 E  | \$0.18 E | \$0.26 E | \$0.59 E  |
| 2021 | -\$0.01 E | \$0.02 E  | \$0.07 E | \$0.15 E | \$0.21 E  |
| 2020 | -\$0.08 A | -\$0.09 A | \$0.01 A | \$0.09 A | -\$0.06 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 02/05/2021. The report's text and the analyst-provided price target are as of 02/08/2021.

## Overview

Snap's flagship product, Snapchat, is a mobile camera application that helps people to communicate through short videos and images called Snaps. The application is one of the most popular and trendy messaging and social media applications in the United States. It is also growing rapidly in other international markets, such as India.

Snapchat's popularity, especially with teens and millennials, can primarily be attributed to its ephemerality i.e. photos/videos and text sent to friends via Snapchat disappear after sometime. Moreover, an interactive style of chat developed by the addition of stickers, doodling etc. has really caught the fancy of teens.

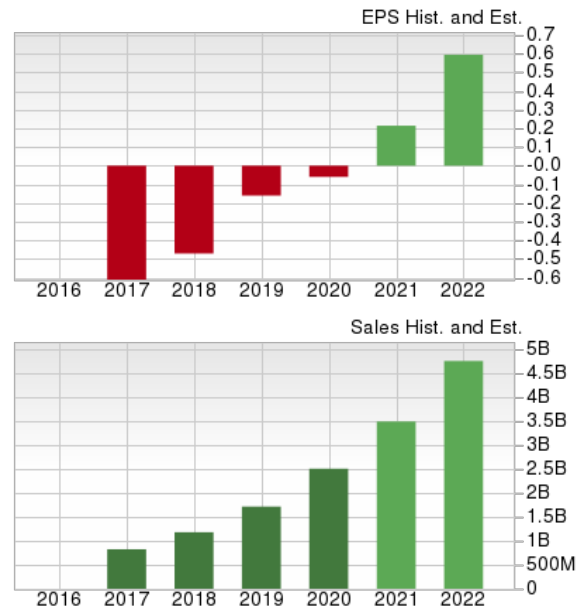
Advertising forms the mainstay of Snap's revenues. The company is helping advertisers reach millennials and Gen Z audience, who are more active on immersive mobile platforms like Snapchat. This popularity provides the company with a competitive edge over the likes of Facebook, Google and Twitter in attracting ad dollars.

Snap slowly diversified its service offerings by introducing features like Stories and augmented reality (AR). Offerings like Scan, Landmarkers and AR Bar give users a whole new experience within the application.

Snap has also ventured into original content through Snap Originals and gaming. In the both the cases, the company provides its own content along with a few other third-party providers content. Moreover, user engagement has improved significantly with the availability of Discover content and Shows, which includes scripted and unscripted series as well as daily news shows.

Snap went for an Initial Public Offering (IPO) on Mar 2, 2017. The Venice, CA-based company reported revenues of \$2.5 billion in 2020. Notably, Snap had 265 million daily active users (DAUs) at the end of fourth-quarter 2020.

In order to diversify revenues, in late 2016, Snap launched \$130-priced sunglasses called Spectacles, with a built-in camera that connects to smartphones to take and send Snaps.



Source: Zacks Investment Research

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## Reasons To Buy:

- ▲ Snap has added a number of features, including the Tab feature on Friends and Discover to make its Snapchat platform more attractive to users and advertisers. Moreover, adoption of the company's AR lenses have been strong, particularly post the launch of Lens Studio 2. At the end of 2020, Snap launched its first-ever 5G-enabled Landmarker Lens (a new tool for overlaying AR on the world) in partnership with Verizon. The Lens uses the company's augmented reality technology and Verizon's 5G Ultra Wideband capabilities. Markedly, over 200 million daily active users engage with augmented reality every day on average. As of the end of fourth-quarter 2020, over 1.5 million augmented Lenses were created by the Snapchat community through Lens Studio. Solid adoption of products like Scan and AR Bar is driving the usage of AR-based lenses, providing significant growth opportunities to the company. Moreover, launch of Local Lenses, which enable shared and persistent AR experiences in much larger areas around the world, is expected to aid user engagement. Snap added Cartoon Lens powered by real-time machine learning in the fourth quarter, which generated 1 billion impressions in its first three days after launch. Moreover, launch of music Lenses in Lens Explorer and Dynamic Lenses, which allow developers to bring real-time information from their app into Snapchat Lenses, is a key catalyst.
- ▲ Snapchat has become the most preferred social networking medium among Millennials and Gen Z, owing to the immersive experience of Snapchat platform. The company stated that Snapchat reaches 75% of 13-34-year olds in the United States, making it a larger platform than Facebook, Instagram and Twitter among this demography. This bodes well for the company as user engagement holds the key to attract advertisements, which is the primary source of revenues for Snap.
- ▲ Moreover, Snap's transition to automated or programmatic auction of Snap Ads is driving its advertising revenues. The company's advertising products include Snap Ads and Sponsored Creative Tools like Sponsored Lenses and Sponsored Geofilters. Moreover, Snapchat's new conversion tracking tool, Snap Pixel is also gaining traction. The tool helps advertisers' measure traffic growth on their websites. Snap's new ad format Promoted Stories offers good opportunity to the company by helping advertising partners spend more time with audiences. The company's decision to shift creative tools business to the programmatic platform is also expected to drive app impressions.
- ▲ Snapchat's partnership with e-commerce giant Amazon to introduce visual Search, a camera-powered search engine in its app is a tailwind. The company is also aggressively ramping up its original content efforts through collaborations with Viacom, Comcast division NBCUniversal and Disney's ESPN. We believe that with binge viewing catching up fast, expansion of its original content portfolio will attract subscribers and drive Snap's top line growth.
- ▲ Snap's strong liquidity makes the stock attractive to investors. As of Sep 30, 2020, cash and cash equivalents, and marketable securities were \$2.53 billion, compared to \$2.72 billion reported on Sep 30, 2020. In comparison, Snap had \$1.2 billion senior notes as of Dec 31, 2020 on its balance sheet with maturity date of Aug 1, 2026. The company also issued convertible senior notes worth \$1 billion that will mature in 2025.

Snap is benefiting from its growing popularity among teenagers driven by the number of exciting features that the platform provides.

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## Reasons To Sell:

- ▼ Snap's closest rival Facebook's strategy of mimicking Snapchat features on its platforms to boost user growth and engagement levels has paid off. The company even succeeded in making them more popular than Snapchat. Additionally, competition from Facebook and Apple poses serious threat to Snap as they are preparing to enter the AR advertising business where Snap is a dominant name.
- ▼ Lackluster user growth remains the primary concern for investors. The company's problem has been its sole focus on the younger demographic. Snap undoubtedly is quite popular among that demography but the failure to attract the older generation (above 35 year olds) has been a major headwind. The company's lack of popularity in the international quarters is also a big concern. Snapchat needs to focus more on the global market and target other age groups in order to stay ahead in the competition.
- ▼ Moreover, lack of revenue diversification is a major concern for Snap. Advertising is its only source of revenues, which is suffering from continuous decline in price per ad impression. Moreover, decelerating growth in advertising revenues following the backlash on redesign remains an overhang on the stock. Notably, the company's hardware product Spectacles has not yet been able to generate significant revenues. There is also uncertainty regarding whether the company views the Snap Store, to sell Snap merchandise, as an alternative revenue channel.
- ▼ In the video streaming market, the company faces stiff competition from established players like Amazon Prime, Netflix, Hulu and HBO. Given the high growth opportunity in the video streaming market, the players are ramping up their efforts to boost subscriber base. The companies are undertaking a number of initiatives such as investing more in regional programming and making more kids and family-oriented content in a bid to gain an edge. Further, giants like Apple, Facebook and Disney are gearing up to cash in on the high growth opportunity in the video streaming market. This doesn't bode well for Snap.

Lack of revenue diversification and stiff competition from established players like Facebook are major headwinds.

## Last Earnings Report

### SNAP Q4 Earnings Beat Estimates, User Growth Aids Top Line

Snap reported fourth-quarter 2020 earnings of 9 cents per share, which beat the Zacks Consensus Estimate for earnings by 28.6% and increased 200% year over year.

Revenues jumped 62.5% from the year-ago quarter to \$911.3 million, beating the consensus mark by 7.6%.

Daily active users (DAU) at the end of the reported quarter were 265 million. Snap added 47 million DAU on a year-over-year basis and 16 million, sequentially. This growth was broad based with year-over-year and sequential growth in both iOS and Android platforms.

Geographically, revenues from North America (72.3% of revenues) soared 72.5% year over year to \$659.2 million. Revenues from Europe (15.5%) jumped 54.1% to \$141.6 million. Rest of the World (ROW) revenues were \$110.6 million, up 27.1% year over year.

Average revenue per user (ARPU) increased 33.3% year over year to \$3.44. On a year-over-year basis, North America and Europe ARPUs increased 62.7% and 39.4%, respectively while ROW declined 17.8%.

Snap's fourth-quarter 2020 top-line growth benefited from increasing ARPU and user base growth.

### User Engagement Improves in Q4

North America DAU increased 2 million sequentially to 92 million, up 6 million year over year. Europe DAU was 74 million, which increased 7 million on a year-over-year basis and 2 million on a sequential basis. ROW DAU was 99 million at the end of the reported quarter, up 35 million year over year and 12 million sequentially.

Snap is benefiting from improved user engagement. Notably, on average, Snapchatters opened Snapchat 30 times every day in fourth-quarter 2020. Snap launched the new Spotlight feature that allows users to share short-form videos publicly on its Snapchat app. Spotlight grew to over 100 million monthly active users in January.

Total daily time spent by Snapchatters over the age of 35 engaging with Shows and publisher content increased by more than 30% year over year. Markedly, digital native creator of sports and lifestyle content, Wave.tv reached an average monthly audience of 64 million Snapchatters.

Additionally, Snap launched the first Snap Kit integration with Twitter, enabling Snapchatters to easily share what's happening on Twitter over the Snapchat camera on iOS, with Android soon to come.

Moreover, Snap launched a record 97 new international Discover channels in the fourth quarter.

Markedly, over 200 million daily active users engage with augmented reality every day on average. As of the end of fourth-quarter 2020, over 1.5 million augmented Lenses were created by the Snapchat community through Lens Studio.

Snap launched its first-ever 5G-enabled Landmarker Lens in partnership with Verizon. The Lens uses the company's augmented reality technology and Verizon's 5G Ultra Wideband capabilities to bring the soul band Black Pumas at the New York Public Library to life.

Snap added Cartoon Lens powered by real-time machine learning in the fourth quarter, which generated 1 billion impressions in its first three days after launch.

Additionally, the company released updates to Lens Studio, introducing new tools and workflows to better manage, create, and load Lenses, while adding capabilities for developers to build LiDAR-powered Lenses.

Further, the company partnered with NYX Professional Makeup, Ralph Lauren, Sweat, and The New York Times to launch augmented reality-powered advertising experiences. Additionally, Snap implemented a partnership with Perfect Corp. to enable more than 200 beauty brands to upload their catalogs to the Snap Camera for augmented reality try-on.

Moreover, the company partnered with Unity Software to extend the reach of Unity's ads to Snapchat advertisers through the Snap Audience Network, as well as bring Snap technology to game developers through Snap Kit.

In addition to AR and content, Snap is also building new ways to empower creators, developers, brands, and others to improve the entire Snapchat experience.

The company partnered with TurboVote to launch a Snap Mini to help Gen Z and millennial audience register for the 2020 presidential election in the United States. Snap Mini helped register more than 1.2 million Snapchatters in the country to vote.

### Snap's Gen-Z Reach Drives Ad Growth

Snap is helping advertisers reach millennials and Gen Z audience who are more active on immersive mobile platforms like Snapchat. This popularity provides the company with a competitive edge over the likes of Facebook, Google and Twitter in attracting ad dollars.

In the United States, over 75% of the Gen Z population comprising 13-24 year olds watched Shows and publisher content in the quarter under review. Snapchat platform Snap is also growing rapidly in other international markets, such as India.

### Quarter Ending 12/2020

| Report Date      | Feb 04, 2021 |
|------------------|--------------|
| Sales Surprise   | 7.54%        |
| EPS Surprise     | 28.57%       |
| Quarterly EPS    | 0.09         |
| Annual EPS (TTM) | -0.07        |

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OnePlus (India) created Lenses for Diwali as a means to bring people together safely during the pandemic. Lenses garnered over 80 million impressions and reached over 14 million Snapchatters in India.

Furthermore, in markets like France and the UK, young people turned to Discover as their destination for premium mobile content, with more than two thirds of the Gen Z and millennial population in both markets watching premium content on Discover.

### **Operating Details**

In the quarter under review, the cost of revenues on a non-GAAP basis increased 52.6% year over year to \$377 million. Infrastructure costs, partner arrangement costs, and other expenses increased 15.9%, 153.4% and 45.5%, respectively, on a year-over-year basis.

Gross margin on a non-GAAP basis expanded to 59% from 56% in the year-ago quarter.

Operating expenses were \$369 million, up 36.2% year over year. Sales and marketing expenses increased 29.2% year over year to \$124 million while general and administrative expenses increased 28.4% year over year to \$104 million. Research and development expenses rose 50% year over year to \$141 million

Adjusted EBITDA was \$165.6 million, up from \$42.3 million in the year-ago quarter.

### **Balance Sheet and Cash Flow**

As of Dec 31, 2020, cash and cash equivalents and marketable securities were \$2.53 billion, compared with \$2.72 billion as on Sep 30, 2020.

Net cash used in operating activities was \$52.5 million compared with \$66.8 million used in the year-ago quarter and \$54.8 million cash used in the previous quarter.

Free cash outflow was \$68.9 million compared with \$75.9 million reported in the year-ago quarter and \$69.5 million in the previous quarter.

### **Guidance**

For the first quarter of 2021, revenues are expected between \$720 million and \$740 million. Negative adjusted EBITDA is estimated to be between \$70 and \$50 million.

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## Recent News

On Jan 26, Snap announced the acquisition of Ariel AI, an augmented reality-focused British artificial intelligence start-up.

On Jan 11, Snap announced the buyout of StreetCred, a New York City-based location data start-up.

On Dec 17, Snap announced a partnership with cross-platform game engine, Unity Software that will extend the reach of Unity's Ad supply to Snapchat advertisers. This will also bring Snap's technology to game developers through Snap Kit tools.

On Dec 14, Snap announced the launch of Bitmoji Paint, a new game in Snapchat where millions of players can come together simultaneously to contribute to one massive collage.

On Dec 10, Snap announced partnership with Twitter to bring tweets into Snapchat with a native integration that both companies hope will push users away from screenshots and toward more interactive embeds.

On Dec 9, Snap announced that the second season of Will Smith's popular Snap original series Will From Home will be available exclusively on Snapchat from Dec 14, 2020 with new episodes airing daily.

On Nov 23, Snap announced the launch of Spotlight feature that would allow users to share short-form videos publicly in its Snapchat app. The company would give over \$1 million every day throughout the remainder of 2020 to users whose snaps make it to the top of the platform, in a bid to boost engagement with the feature.

Moreover, Snap acquired Voisey, an app that makes it easier for musicians, singers and producers to collaborate, per a TechCrunch report.

## Valuation

Snap shares are up 24.7% in the year-to-date period and 254.6% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer and Technology sector are up 11.1% and 8.6% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are up 100.2% and 40.3%, respectively.

The S&P 500 Index is up 4.1% in the year-to-date period and 18.2% in the past year.

The stock is currently trading at trailing 12-month EV/Sales of 36.74X, which compares to 13.94X for the Zacks sub-industry, 5.8X for the Zacks sector and 4.38X for the S&P 500 index.

Over the past three years, the stock has traded as high as 36.74X and as low as 4.67X, with a 3-year median of 13.6X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$67 price target reflects 27.46X forward 12-month sales.

The table below shows summary valuation data for SNAP

| Valuation Multiples - SNAP |               |       |              |        |         |
|----------------------------|---------------|-------|--------------|--------|---------|
|                            |               | Stock | Sub-Industry | Sector | S&P 500 |
| EV/Sales TTM               | Current       | 36.74 | 13.94        | 5.8    | 4.38    |
|                            | 3-Year High   | 36.74 | 14.04        | 5.8    | 4.42    |
|                            | 3-Year Low    | 4.67  | 4.61         | 3.12   | 2.61    |
|                            | 3-Year Median | 13.6  | 6.90         | 4.02   | 3.64    |
| P/S F12M                   | Current       | 26.15 | 11.67        | 4.98   | 4.54    |
|                            | 3-Year High   | 26.15 | 11.67        | 4.98   | 4.54    |
|                            | 3-Year Low    | 4.28  | 4.97         | 2.78   | 3.2     |
|                            | 3-Year Median | 10.48 | 6.20         | 3.53   | 3.77    |
| P/B TTM                    | Current       | 43.13 | 14.74        | 9.71   | 6.66    |
|                            | 3-Year High   | 43.13 | 14.87        | 9.71   | 6.66    |
|                            | 3-Year Low    | 2.70  | 5.05         | 4.6    | 3.83    |
|                            | 3-Year Median | 8.52  | 6.97         | 6.02   | 5.13    |

As of 02/05/2021

Source: Zacks Investment Research

## Industry Analysis Zacks Industry Rank: Bottom 28% (181 out of 253)



Source: Zacks Investment Research

## Top Peers

| Company (Ticker)             | Rec          | Rank |
|------------------------------|--------------|------|
| Facebook, Inc. (FB)          | Outperform   | 3    |
| Pinterest, Inc. (PINS)       | Neutral      | 3    |
| Sina Corporation (SINA)      | Neutral      | NA   |
| Sohu.com Inc. (SOHU)         | Neutral      | 3    |
| Tencent Holding Ltd. (TCEHY) | Neutral      | 3    |
| Twitter, Inc. (TWTR)         | Neutral      | 3    |
| Weibo Corporation (WB)       | Neutral      | 3    |
| Momo Inc. (MOMO)             | Underperform | 4    |

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

| Industry Comparison Industry: Internet - Software |            |            |           | Industry Peers |            |            |
|---------------------------------------------------|------------|------------|-----------|----------------|------------|------------|
|                                                   | SNAP       | X Industry | S&P 500   | FB             | PINS       | TWTR       |
| Zacks Recommendation (Long Term)                  | Neutral    | -          | -         | Outperform     | Neutral    | Neutral    |
| Zacks Rank (Short Term)                           | 3          | -          | -         | 3              | 3          | 3          |
| VGM Score                                         | C          | -          | -         | A              | F          | D          |
| Market Cap                                        | 94.82 B    | 1.91 B     | 27.69 B   | 763.46 B       | 50.66 B    | 45.16 B    |
| # of Analysts                                     | 10         | 5          | 13        | 16             | 4          | 6          |
| Dividend Yield                                    | 0.00%      | 0.00%      | 1.43%     | 0.00%          | 0.00%      | 0.00%      |
| Value Score                                       | F          | -          | -         | C              | F          | D          |
| Cash/Price                                        | 0.03       | 0.07       | 0.06      | 0.08           | 0.04       | 0.19       |
| EV/EBITDA                                         | -103.79    | -1.71      | 14.96     | 17.52          | -36.82     | 36.16      |
| PEG F1                                            | NA         | 5.14       | 2.44      | 1.25           | NA         | 1.54       |
| P/B                                               | 42.52      | 10.87      | 3.71      | 5.95           | 26.18      | 5.78       |
| P/CF                                              | NA         | 37.70      | 15.54     | 21.20          | NA         | 20.60      |
| P/E F1                                            | 298.38     | 90.69      | 20.33     | 23.96          | 163.92     | 59.34      |
| P/S TTM                                           | 37.83      | 9.16       | 3.01      | 8.88           | 29.93      | 13.15      |
| Earnings Yield                                    | 0.33%      | 0.42%      | 4.83%     | 4.17%          | 0.61%      | 1.69%      |
| Debt/Equity                                       | 0.75       | 0.01       | 0.68      | 0.00           | 0.00       | 0.33       |
| Cash Flow (\$/share)                              | -0.66      | -0.00      | 6.78      | 12.65          | -2.34      | 2.76       |
| Growth Score                                      | A          | -          | -         | B              | C          | C          |
| Historical EPS Growth (3-5 Years)                 | NA%        | 20.20%     | 9.46%     | 31.67%         | NA         | NA         |
| Projected EPS Growth (F1/F0)                      | 456.67%    | 12.42%     | 13.31%    | 10.88%         | 19.05%     | 232.60%    |
| Current Cash Flow Growth                          | -20.24%    | 7.48%      | 4.43%     | 48.63%         | 3,062.97%  | 123.58%    |
| Historical Cash Flow Growth (3-5 Years)           | NA%        | 19.29%     | 8.19%     | 42.26%         | NA         | 55.36%     |
| Current Ratio                                     | 5.43       | 1.91       | 1.37      | 5.05           | 10.72      | 4.44       |
| Debt/Capital                                      | 42.87%     | 5.65%      | 41.33%    | 0.00%          | 0.00%      | 24.62%     |
| Net Margin                                        | -37.69%    | -13.45%    | 10.59%    | 33.90%         | -7.58%     | -31.71%    |
| Return on Equity                                  | -42.69%    | -7.11%     | 14.84%    | 25.25%         | -1.96%     | -12.42%    |
| Sales/Assets                                      | 0.56       | 0.57       | 0.51      | 0.59           | 0.74       | 0.26       |
| Projected Sales Growth (F1/F0)                    | 39.28%     | 16.98%     | 6.14%     | 25.82%         | 38.55%     | 23.68%     |
| Momentum Score                                    | B          | -          | -         | A              | C          | C          |
| Daily Price Change                                | 9.14%      | 1.27%      | 0.38%     | 0.60%          | 5.29%      | 0.48%      |
| 1-Week Price Change                               | -1.18%     | -3.40%     | -4.02%    | -5.89%         | -6.25%     | 5.14%      |
| 4-Week Price Change                               | 21.36%     | 12.01%     | 0.24%     | -0.24%         | 14.82%     | 8.50%      |
| 12-Week Price Change                              | 57.92%     | 42.86%     | 10.12%    | -2.54%         | 36.01%     | 32.63%     |
| 52-Week Price Change                              | 274.35%    | 65.36%     | 7.73%     | 27.15%         | 256.19%    | 47.83%     |
| 20-Day Average Volume (Shares)                    | 18,916,740 | 682,745    | 2,075,178 | 22,904,826     | 11,224,858 | 20,401,650 |
| EPS F1 Estimate 1-Week Change                     | 0.00%      | 0.00%      | 0.00%     | 0.60%          | 0.00%      | 0.00%      |
| EPS F1 Estimate 4-Week Change                     | 6.95%      | 0.00%      | 0.46%     | 6.47%          | 0.00%      | 7.64%      |
| EPS F1 Estimate 12-Week Change                    | 7.52%      | 0.00%      | 1.32%     | 6.77%          | 0.00%      | 10.98%     |
| EPS Q1 Estimate Monthly Change                    | -1.75%     | 0.00%      | 0.08%     | 10.46%         | 0.00%      | -6.67%     |

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    | F |
| Growth Score   | A |
| Momentum Score | B |
| VGM Score      | C |

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

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## 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.