

## Take-Two Interactive (TTWO)

**\$129.34** (As of 05/27/20)

Price Target (6-12 Months): **\$137.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Neutral**

(Since: 03/11/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

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

**2-Buy**

Zacks Style Scores:

VGM:B

Value: D

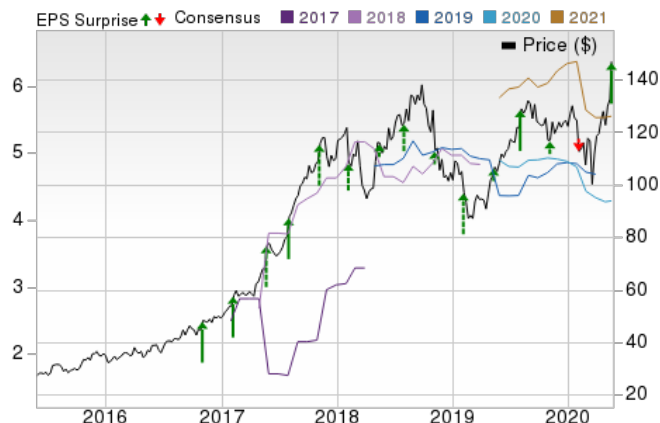
Growth: A

Momentum: A

### Summary

Take Two's fourth-quarter fiscal 2020 results benefited from heightened user engagement levels attributed to coronavirus-led lockdown. Revenues grew steadily on sturdy demand for *NBA 2K20* and *NBA 2K19*, *Grand Theft Auto Online* and *Grand Theft Auto V*, *Red Dead Redemption 2* and *Red Dead Online*, *Borderlands 3*, *Sid Meier's Civilization VI*, Social Point's mobile games, *WWE SuperCard* and *WWE 2K20*. Moreover, stellar growth in digitally-delivered net bookings aided revenue growth. Notably, shares have outperformed the industry on a year-to-date basis. However, intensifying competition from the likes of EA and Activision is compelling the company to spend more on software development and advertising. This is keeping margins under pressure.

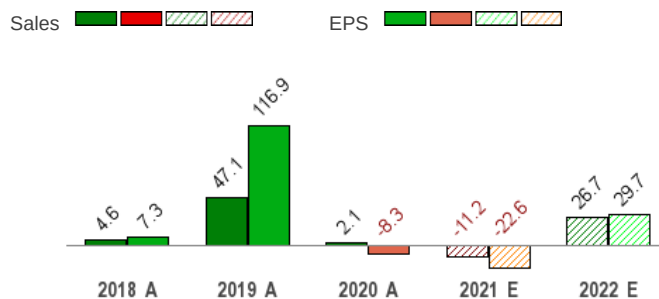
### Price, Consensus & Surprise



### Data Overview

|                            |                                        |
|----------------------------|----------------------------------------|
| 52 Week High-Low           | \$149.28 - \$100.00                    |
| 20 Day Average Volume (sh) | 2,394,829                              |
| Market Cap                 | \$14.8 B                               |
| YTD Price Change           | 6.4%                                   |
| Beta                       | 0.56                                   |
| Dividend / Div Yld         | \$0.00 / 0.0%                          |
| Industry                   | <a href="#">Toys - Games - Hobbies</a> |
| Zacks Industry Rank        | Top 7% (18 out of 253)                 |

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



|                           |            |
|---------------------------|------------|
| Last EPS Surprise         | 88.6%      |
| Last Sales Surprise       | 26.3%      |
| EPS F1 Est- 4 week change | 0.0%       |
| Expected Report Date      | 08/03/2020 |
| Earnings ESP              | 87.8%      |
| P/E TTM                   | 35.5       |
| P/E F1                    | 41.2       |
| PEG F1                    | 3.7        |
| P/S TTM                   | 4.8        |

### Sales Estimates (millions of \$)

|      | Q1    | Q2    | Q3      | Q4    | Annual* |
|------|-------|-------|---------|-------|---------|
| 2022 | 464 E | 978 E | 1,338 E | 688 E | 3,365 E |
| 2021 | 828 E | 755 E | 839 E   | 544 E | 2,656 E |
| 2020 | 422 A | 951 A | 888 A   | 729 A | 2,990 A |

### EPS Estimates

|      | Q1       | Q2       | Q3       | Q4       | Annual*  |
|------|----------|----------|----------|----------|----------|
| 2022 | \$0.29 E | \$1.65 E | \$2.47 E | \$0.96 E | \$5.55 E |
| 2021 | \$0.59 E | \$1.41 E | \$1.60 E | \$0.77 E | \$4.28 E |
| 2020 | \$0.24 A | \$1.89 A | \$1.68 A | \$1.66 A | \$5.53 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 05/27/2020. The reports text is as of 05/27/2020.

## Overview

Based in New York City, Take Two Interactive Software is a leading developer and publisher of video games.

Take Two's games can be played on video consoles, personal computers, mobile devices and tablets. The company earns revenues from the sale of disk-based video game products (known as packaged goods), downloadable contents (DLCs), subscription, micro-transactions and advertising.

Take Two reported net revenues of \$3.08 billion for fiscal 2020. The U.S. accounted for 57% of revenues, while the rest came from International operations. Channel-wise, digital online contributed 77% to net revenues, while the rest came from Physical retail and other segment.

The company develops and publishes games through Rockstar Games, 2K, Private Division and Social Point.

Rockstar publishes *Grand Theft Auto (GTA)* and *Red Dead Redemption* among others.

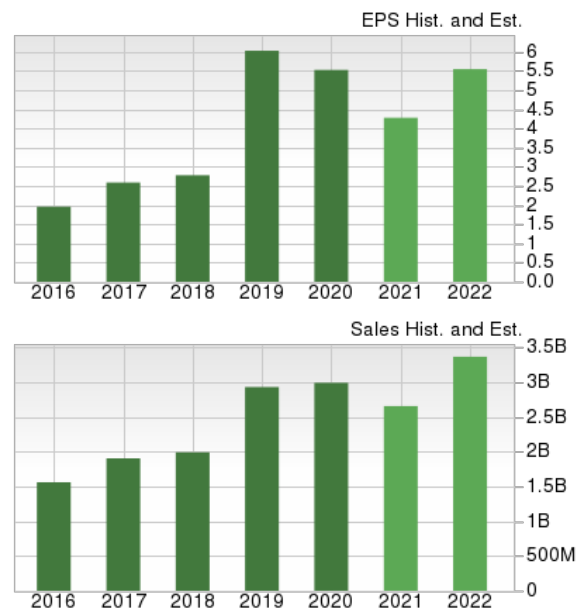
On Feb 7, 2020 Take Two's *Grand Theft Auto V* became the best-selling game of the past decade while *Red Dead Redemption 2* became the best-selling game in the past four years. Both the games sold more than 150 million units worldwide combined since their launch.

2K's internally owned and published franchises include *BioShock*, *Mafia*, *XCOM* and *Sid Meier's Civilization*. It also publishes externally developed franchises such as *Borderlands*. Moreover, 2K's realistic sports simulation titles include *NBA 2K* series, the *WWE 2K* series, and the *Golf Club*.

Take Two's Private Division is the publisher of *Kerbal Space Program*.

Social Point develops and publishes popular free-to-play mobile games that include *Dragon City* and *Monster Legends*.

The company sells games both physically and digitally through direct relationships with large retail customers and third-party distributors. GameStop, Microsoft, Sony, Steam and Wal-Mart are the top customers. In fiscal 2020, the five largest customers accounted for 71.5% of net revenues, with Sony and Microsoft each accounting for more than 10% of net revenues.



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## Reasons To Buy:

- ▲ Take Two's growth is primarily driven by its popular franchises — *Grand Theft Auto (GTA)* and *Red Dead Redemption*. Notably, GTA generated 23% of net revenues in fiscal 2020. *Sid Meier's Civilization VI* also outperformed management's expectation owing to its expansion packs and the popularity of the Nintendo Switch skew. The company's portfolio strength and robust slate of releases, including *Borderlands 3*, *Ancestors: The Humankind Odyssey* and *The Outer Worlds*, are key catalysts for the long haul.
- ▲ The growing traction in NBA franchise bodes well for the company. Take Two expects NBA 2K net bookings to continue the momentum owing to strong growth in recurrent consumer spending, which increased 29% year over year in fiscal 2020. Meanwhile, NBA 2K Online was the most played PC game in China and the franchise has about 49 million registered users, which is expected to drive recurrent consumer spending. Moreover, the NBA 2K League started its 2020 regular season on May 5, 2020 with at least six weeks of remote gameplay after coronavirus lockdown. This is expected to further boost top-line growth in the near term..
- ▲ Take Two's acquisition of Barcelona-based free-to-play mobile game developer, Social Point, is helping it fast penetrate the rapidly growing mobile gaming market. Social Point continues to expand its gaming portfolio with the launch of *Tasty Town* and *Word Life*. It has a robust slate of new releases (10 games) for the remainder of 2021.
- ▲ Compared with the physical platform, digital games are more profitable due to minimum packaging cost. This cost effectiveness helps publishers like Take Two to keep a popular franchise running profitably over a longer period of time. In fiscal 2020, digital online revenues rallied 41% and accounted for 77% of net revenues. Moreover, net bookings from recurrent consumer spending grew 34% and accounted for 51% of total net bookings. The consumer spending momentum, driven by rapid adoption of *NBA2K* (including NBA 2K Online in China), *Grand Theft Auto Online* and *NBA 2K20*, will be a major growth driver for bookings in fiscal 2021.
- ▲ Take Two has been cautious in its approach towards e-sports market, which refers to live video game tournaments. With continued increase in viewership, corporate sponsorships and growing media coverage, e-sports is here to stay. Per the latest report from Newzoo, e-sports industry will reach \$1.4 billion by 2020. To grab a share of this lucrative opportunity, in February 2017, Take Two inked a deal with NBA to launch *NBA 2K eLeague*. This made NBA the only professional sports league to have its own e-sports league. Additionally, the company has a total of 21 teams. Notably, Take Two has been conducting an NBA e-sports tournament for the last two years.
- ▲ Take-Two's improved liquidity makes the stock attractive to investors. As of Mar 31, 2020, cash, cash equivalents and short-term investments totaled \$2.54 billion or \$2.37 billion in net cash. Take Two had cash, cash equivalents and short-term investments of \$2.44 billion as of Dec 31, 2019. Although total debt of \$177.2 million on Mar 31, 2020 increased from \$175 million as of Dec 31, 2019, it should not be a bother for Take-Two due to its solid cash balance..

Take Two benefits from the popularity of *GTA*, *Red Dead Redemption*, NBA and WWE franchises, strength in digital business, and expanding footprint in the e-sports space.

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## Reasons To Sell:

- ▼ Video games are hit driven. Though Take Two has a powerful line-up of games that can be repeatedly upgraded, there is no assurance that a particular game will be a hit. Moreover, the video game business is highly cyclical and heavily dependent on time-to-time upgrade/introduction of new game software and hardware systems. This always keeps the margins under pressure.
- ▼ Moreover, the video game publishing industry is intensely competitive. The resultant pressure could tell on margins and also lead to market share losses. On the other hand, continued investment in the digital market may hurt its profitability in the near term. Notably, operating expenses increased 19.5% year over year, primarily due to higher selling & marketing (S&M) and research & development (R&D) expenses, up 17.1% and 28.8%, respectively, in fiscal 2020..
- ▼ Take Two's biggest problem is that it depends heavily on a handful of franchises, including *GTA*, *Red Dead Redemption* and *NBA 2K* series. The five best selling franchises make up for a major chunk of its revenues (87.4% in fiscal 2020). Underperformance of any of these franchises is bound to have a negative impact on the top line and profitability.
- ▼ Take Two is highly dependent on its few retail customers and third-party distributors to drive sales. Its top five customers accounted for 71.5% of net revenues in fiscal 2020. Sony and Microsoft each accounted for more than 10.0% of the company's net revenues. Customer concentration does not bode well for growth, as loss of any one such customer can drastically hurt financials.

Take Two's dependence on few franchises for top-line growth and customer concentration, and intensifying competition in the video game industry beget caution.

## Last Earnings Report

### Take Two's Q4 Earnings and Revenues Decrease Y/Y

Take Two Interactive Software reported fourth-quarter fiscal 2020 GAAP earnings of \$1.07 per share, up 114% year over year.

Net revenues increased 41.1% from the year-ago quarter to \$760.5 million. The top line was driven by heightened user engagement levels and net bookings growth attributed to coronavirus-led lockdown.

*NBA 2K20* and *NBA 2K19*, *Grand Theft Auto Online* and *Grand Theft Auto V*, *Red Dead Redemption 2* and *Red Dead Online*, *Borderlands 3*, *Sid Meier's Civilization VI*, Social Point's mobile games, *WWE SuperCard* and *WWE 2K20* were the biggest contributors to the company's fourth-quarter fiscal 2020 top-line growth.

Recurrent consumer spending (virtual currency, add-on content and in-game purchases, including the allocated value of virtual currency and add-on content incorporated in special editions of certain games) increased 40% and accounted for 54% of total GAAP net revenues.

The Zacks Consensus Estimate for earnings and revenues was pegged at 88 cents per share and \$578 million, respectively.

### Top-Line Details

Digital revenues (88.4% of revenues) increased 53.5% year over year to \$634.7 million. Notably, growth was driven by *NBA 2K20* and *NBA 2K19*, *Grand Theft Auto Online* and *Grand Theft Auto V*, *Red Dead Redemption 2* and *Red Dead Online*, *Borderlands 3*, *Sid Meier's Civilization VI*, Social Point's mobile games, *WWE SuperCard* and *WWE 2K20*.

Meanwhile, revenues from Physical retailer and other segments (7.5% of revenues) remained flat year over year at \$125.9 million.

Region-wise, revenues from the United States (54.4% of revenues) increased 50.6% year over year to \$413.7 million. Moreover, revenues from International markets (45.6% of revenues) increased 31.2% to \$346.8 million.

On the basis of platforms, revenues from console (71.3% of revenues) increased 28.3% to \$542.2 million while revenues from PC and other (28.7% of revenues) surged 87.3% to \$218.4 million.

### Booking Details

Net bookings of \$729.4 million increased 49.3% on a year-over-year basis.

Net bookings from recurrent consumer spending grew 47% year over year and accounted for 61% of total net bookings. Notably, growth was driven by *NBA 2K20*, *Grand Theft Auto Online* and *Grand Theft Auto V*, *Red Dead Redemption 2* and *Red Dead Online*, *Borderlands 3*, *Sid Meier's Civilization VI*, Social Point's mobile games, *WWE SuperCard* and *WWE 2K20*.

Notably, Catalog accounted for \$432.1 million of net bookings. Strong demand for *Grand Theft Auto*, *Red Dead Redemption*, *Sid Meier's Civilization VI* and Social Point's mobile offerings was observed in the reported quarter.

Digitally-delivered net bookings (92.1% of net bookings) grew 60.4% to \$672.1 million. However, bookings from Physical retail (7.9% of net bookings) and other segments declined 17.4% to \$57.4 million.

### Operating Details

Take Two's gross profit increased 30.3% year over year to \$364.86 million. Reported gross margin of 48% contracted 400 basis points (bps) from the year-ago quarter.

Reported operating expenses increased 9.5% year over year to \$243 million, primarily due to higher research & development (R&D) and general & administrative (G&A) expenses in the quarter. R&D and G&A expenses increased 21.4% and 8.8%, respectively, on a year-over-year basis.

Meanwhile, selling & marketing (S&M) expenses increased 3% year over year to \$80 million in the reported quarter.

Income from operations came in at \$121.9 million, up 109.9% year over year. Operating margin expanded 530 bps from the year-ago quarter.

### Guidance

For the first quarter of fiscal 2021, Take Two expects GAAP net revenues between \$775 million and \$825 million. The company projects GAAP earnings between 90 cents and \$1 per share.

Net bookings are projected between \$800 million and \$850 million. Significant contribution to net bookings is expected to be made by *Grand Theft Auto Online* and *Grand Theft Auto V* and *NBA 2K20*, *Red Dead Redemption 2* and *Red Dead Online* and *Borderlands 3*.

The company projects recurrent consumer spending to grow approximately 75% year over year, driven primarily by growth in *Grand Theft Auto Online* and *NBA 2K20*.

Moreover, digitally delivered net bookings are expected to double year over year. The company assumes that 81% of current generation console games will be delivered digitally, up from 75% in the same period last year.

For fiscal 2020, net bookings are expected between \$2.55 billion and \$2.65 billion. The largest contributors to net bookings are expected to be

Quarter Ending 03/2020

| Report Date      | May 20, 2020 |
|------------------|--------------|
| Sales Surprise   | 26.34%       |
| EPS Surprise     | 88.64%       |
| Quarterly EPS    | 1.66         |
| Annual EPS (TTM) | 3.67         |

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*NBA 2K, Grand Theft Auto Online and Grand Theft Auto V, Red Dead Redemption 2 and Red Dead Online, Social Point's mobile game, Borderlands 3, Civilization VI and the Outer Worlds.*

Take-Two expects geographic net bookings split to be about 60% United States and 40% International.

The company expects digitally delivered net bookings to decline about 8% from the last year. As a percentage of business, digital is projected to represent 86%, up from 82% last year.

GAAP net revenues are likely to be in the range of \$2.63-\$2.73 billion. Take Two projects GAAP earnings of \$2.60-\$2.85 per share.

Total operating expenses are expected to range between \$1.1 billion and \$1.12 billion.

Take Two expects recurrent consumer spending to be roughly flat compared with fiscal 2020, driven primarily by growth in *NBA 2K* and offset by lower allocated recurrent consumer spending from the *Borderlands 3* and *Red Dead Redemption 2* Premium Edition.

Current consumer spending as a percentage of business is expected to grow to approximately 60% compared to 51% last year.

*Note: The EPS data mentioned in the text of this section differs from the rest of report due to the difference in calculation or consideration of one-time items.*

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## Recent News

On May 19, Take Two's division 2K and its Hangar 13 development studio announced the launch of *Mafia: Trilogy*, a new collection featuring the only interactive entertainment series that lets players live the life of a gangster across three distinct eras of organized crime in America. Players who purchase *Mafia: Trilogy* digitally prior to Aug 28 will be able to access *Mafia II: Definitive Edition* and *Mafia III: Definitive Edition* immediately on PS 4, Xbox One, and Steam, and will be able to download *Mafia: Definitive Edition* as soon as it becomes available.

On May 18, Take Two's Private Division and Squad announced a partnership with the European Space Agency (ESA) to launch a *Kerbal Space Program* update, titled Shared Horizons. The launch on PC is planned for Jul 1, 2020.

On May 14, Take Two's division 2K announced that *PGA TOUR 2K21*, its forthcoming, officially licensed golf simulation video game, is scheduled for worldwide release on Aug 21, 2020 for the PS4 system, the Xbox One family of devices, including the Xbox One X and Windows PC via Steam, Nintendo Switch system and Stadia.

On May 11, Take Two announced the release of Sid Meier's *Civilization VI - New Frontier Pass* starting May 21, 2020 through March 2021.

On May 7, Take Two's Private Division and V1 Interactive announced that *Disintegration*, the debut title from the 30-person independent studio, will release digitally for \$49.99 on PC, PS4, PS4 Pro and across the Xbox One family of devices, including Xbox One X on Jun 16, 2020.

On Apr 14, Take Two's division 2K announced that *XCOM: Chimera Squad*, a new standalone title in the award-winning, turn-based, XCOM tactical series, is scheduled to release digitally for Windows PC on Apr 24, 2020, for a limited-time introductory price of \$9.99.

On Mar 10, Take Two's division 2K announced a multi-year partnership with NFL encompassing multiple future video games. The partnership marks the return of football-themed games to 2K's lineup of notable sports titles and original IP, as well as an expansion of video game properties for the NFL.

## Valuation

Take Two shares are up 6.4% in the year-to-date period and 22.2% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 5.6% while stocks in the Zacks Consumer Discretionary sector are down 14.9% in the year-to-date period. Over the past year, the Zacks sub-industry is up 25.4% while the sector is down 6.7%.

The S&P 500 index is down 7% in the year-to-date period while up 6.6% in the past year.

The stock is currently trading at 39.57X forward 12-month earnings, which compares to 28.52X for the Zacks sub-industry, 29.88X for the Zacks sector and 21.76X for the S&P 500 index.

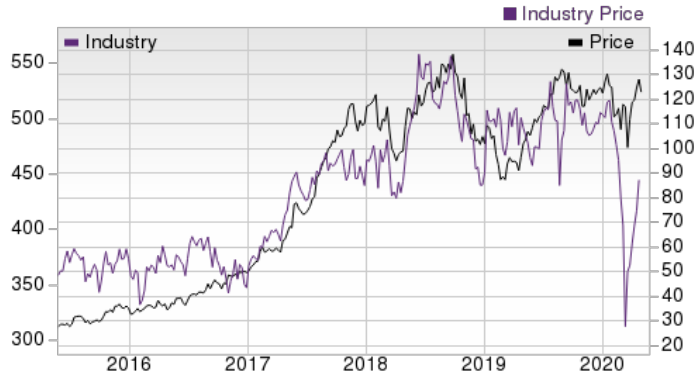
Over the past five years, the stock has traded as high as 55.61X and as low as 21.56X, with a 5-year median of 33.88X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$137 price target reflects 41.5X forward 12-month earnings.

The table below shows summary valuation data for TTWO

| Valuation Multiples - TTWO |               |       |              |        |         |
|----------------------------|---------------|-------|--------------|--------|---------|
|                            |               | Stock | Sub-Industry | Sector | S&P 500 |
| P/E F12M                   | Current       | 39.57 | 28.52        | 29.88  | 21.76   |
|                            | 5-Year High   | 55.61 | 30.46        | 29.88  | 21.76   |
|                            | 5-Year Low    | 21.56 | 19.51        | 16.21  | 15.23   |
|                            | 5-Year Median | 33.88 | 25.21        | 19.92  | 17.49   |
| P/S F12M                   | Current       | 5.35  | 5.23         | 2.1    | 3.37    |
|                            | 5-Year High   | 6.08  | 5.98         | 3.2    | 3.44    |
|                            | 5-Year Low    | 1.52  | 3.46         | 1.67   | 2.53    |
|                            | 5-Year Median | 4.17  | 4.7          | 2.53   | 3.01    |
| EV/EBITDA TTM              | Current       | 18.46 | 23.24        | 9.85   | 11.07   |
|                            | 5-Year High   | 34.91 | 24.25        | 17.65  | 12.86   |
|                            | 5-Year Low    | 3     | 11.04        | 8.28   | 8.26    |
|                            | 5-Year Median | 14.92 | 14.64        | 12.25  | 10.79   |

As of 05/26/2020

## Industry Analysis Zacks Industry Rank: Top 7% (18 out of 253)



## Top Peers

| Company (Ticker)                 | Rec        | Rank |
|----------------------------------|------------|------|
| Activision Blizzard, Inc. (ATVI) | Outperform | 1    |
| Nintendo Co. (NTDOY)             | Outperform | 2    |
| Tencent Holding Ltd. (TCEHY)     | Outperform | 1    |
| Electronic Arts Inc. (EA)        | Neutral    | 2    |
| Glu Mobile Inc. (GLUU)           | Neutral    | 2    |
| JAKKS Pacific, Inc. (JAKK)       | Neutral    | 3    |
| Microsoft Corporation (MSFT)     | Neutral    | 3    |
| Zynga Inc. (ZNGA)                | Neutral    | 3    |

| Industry Comparison Industry: Toys - Games - Hobbies |           |            |           | Industry Peers |           |            |
|------------------------------------------------------|-----------|------------|-----------|----------------|-----------|------------|
|                                                      | TTWO      | X Industry | S&P 500   | ATVI           | EA        | MSFT       |
| Zacks Recommendation (Long Term)                     | Neutral   | -          | -         | Outperform     | Neutral   | Neutral    |
| Zacks Rank (Short Term)                              | 2         | -          | -         | 1              | 2         | 3          |
| VGM Score                                            | B         | -          | -         | F              | D         | B          |
| Market Cap                                           | 14.77 B   | 6.60 B     | 21.18 B   | 53.93 B        | 33.79 B   | 1,376.93 B |
| # of Analysts                                        | 21        | 6.5        | 14        | 14             | 13        | 14         |
| Dividend Yield                                       | 0.00%     | 0.00%      | 2.03%     | 0.59%          | 0.00%     | 1.12%      |
| Value Score                                          | D         | -          | -         | D              | D         | C          |
| Cash/Price                                           | 0.16      | 0.17       | 0.06      | 0.10           | 0.17      | 0.10       |
| EV/EBITDA                                            | 24.82     | 18.35      | 12.37     | 23.47          | 17.16     | 22.55      |
| PEG Ratio                                            | 3.69      | 3.96       | 2.88      | 1.49           | 4.15      | 2.47       |
| Price/Book (P/B)                                     | 5.82      | 4.34       | 2.90      | 4.14           | 4.53      | 12.02      |
| Price/Cash Flow (P/CF)                               | 22.59     | 22.59      | 11.55     | 24.94          | 21.73     | 28.58      |
| P/E (F1)                                             | 41.19     | 29.16      | 21.24     | 28.08          | 30.24     | 31.93      |
| Price/Sales (P/S)                                    | 4.78      | 3.86       | 2.24      | 8.36           | 6.10      | 9.93       |
| Earnings Yield                                       | 2.41%     | 2.86%      | 4.57%     | 3.56%          | 3.31%     | 3.13%      |
| Debt/Equity                                          | 0.06      | 0.12       | 0.76      | 0.21           | 0.05      | 0.61       |
| Cash Flow (\$/share)                                 | 5.76      | 1.99       | 6.96      | 2.81           | 5.37      | 6.35       |
| Growth Score                                         | A         | -          | -         | F              | D         | B          |
| Hist. EPS Growth (3-5 yrs)                           | 29.50%    | 14.13%     | 10.87%    | 13.15%         | 15.11%    | 18.74%     |
| Proj. EPS Growth (F1/F0)                             | -43.15%   | 14.13%     | -10.31%   | 10.81%         | -32.56%   | 19.70%     |
| Curr. Cash Flow Growth                               | -8.28%    | -3.32%     | 5.46%     | -23.97%        | 15.43%    | 19.70%     |
| Hist. Cash Flow Growth (3-5 yrs)                     | 12.57%    | 6.23%      | 8.55%     | 9.90%          | 7.26%     | 11.99%     |
| Current Ratio                                        | 1.71      | 1.99       | 1.29      | 2.78           | 2.45      | 2.90       |
| Debt/Capital                                         | 5.65%     | 15.95%     | 44.54%    | 17.04%         | 5.05%     | 37.98%     |
| Net Margin                                           | 13.09%    | 10.71%     | 10.59%    | 24.21%         | 54.88%    | 33.36%     |
| Return on Equity                                     | 18.22%    | 15.68%     | 16.29%    | 14.57%         | 16.79%    | 40.37%     |
| Sales/Assets                                         | 0.65      | 0.72       | 0.55      | 0.35           | 0.52      | 0.49       |
| Proj. Sales Growth (F1/F0)                           | -10.97%   | 6.21%      | -2.34%    | 10.60%         | 6.21%     | 12.46%     |
| Momentum Score                                       | A         | -          | -         | A              | A         | A          |
| Daily Price Chg                                      | -7.34%    | 0.00%      | 2.82%     | -4.21%         | -2.65%    | -1.06%     |
| 1 Week Price Chg                                     | 6.01%     | 0.00%      | 4.99%     | -1.14%         | 1.43%     | 0.19%      |
| 4 Week Price Chg                                     | 8.04%     | -1.67%     | 3.55%     | 9.61%          | 4.75%     | 6.93%      |
| 12 Week Price Chg                                    | 17.07%    | 13.19%     | -4.95%    | 19.15%         | 9.32%     | 10.37%     |
| 52 Week Price Chg                                    | 22.21%    | 9.62%      | -3.04%    | 60.92%         | 24.75%    | 43.92%     |
| 20 Day Average Volume                                | 2,394,829 | 191,828    | 2,429,758 | 8,471,459      | 3,226,005 | 33,931,336 |
| (F1) EPS Est 1 week change                           | 0.00%     | 0.00%      | 0.00%     | 0.00%          | 0.00%     | 0.00%      |
| (F1) EPS Est 4 week change                           | 0.00%     | -0.82%     | -2.27%    | 8.69%          | -1.64%    | 2.37%      |
| (F1) EPS Est 12 week change                          | -0.33%    | -1.25%     | -16.39%   | 9.36%          | -2.16%    | 1.04%      |
| (Q1) EPS Est Mthly Chg                               | 0.00%     | -3.03%     | -4.03%    | 93.41%         | 661.84%   | 1.49%      |



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

### Zacks Rank

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

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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      | B |

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

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### Disclosures

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