

## Autodesk Inc. (ADSK)

**\$224.36** (As of 09/08/20)

Price Target (6-12 Months): **\$236.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Neutral**

(Since: 08/17/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

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

**3-Hold**

Zacks Style Scores:

VGM:B

Value: D

Growth: A

Momentum: B

### Summary

Autodesk's second-quarter fiscal 2021 results benefited from higher subscription revenues, gross margin expansion and lower operating expenses. Rapid adoption of BIM 360 products and success of the maintenance to subscription (M2S) program drove revenues. We believe higher demand for Autodesk's cloud-based products, mobile solutions and design suites will drive the top line over the long haul. Moreover, Pype's acquisition will provide additional value to Construction Cloud users to automate workflows to increase productivity and reduce risk throughout the project lifecycle. However, sluggish growth in Maintenance revenues due to continued migration of maintenance plan subscriptions to subscription plan hurt top-line growth. Renewal rates are expected to decline in the near term. Shares have underperformed the industry year to date.

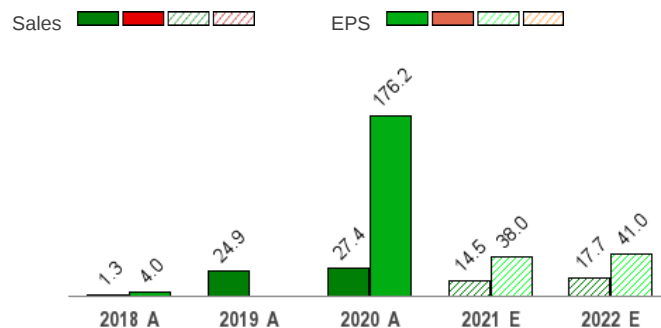
### Price, Consensus & Surprise



### Data Overview

|                                |                                |
|--------------------------------|--------------------------------|
| 52-Week High-Low               | <b>\$261.94 - \$125.38</b>     |
| 20-Day Average Volume (Shares) | <b>1,437,800</b>               |
| Market Cap                     | <b>\$49.2 B</b>                |
| Year-To-Date Price Change      | <b>22.3%</b>                   |
| Beta                           | <b>1.52</b>                    |
| Dividend / Dividend Yield      | <b>\$0.00 / 0.0%</b>           |
| Industry                       | <b>Computer - Software</b>     |
| Zacks Industry Rank            | <b>Top 26% (66 out of 251)</b> |

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



|                               |                   |
|-------------------------------|-------------------|
| Last EPS Surprise             | <b>8.9%</b>       |
| Last Sales Surprise           | <b>1.3%</b>       |
| EPS F1 Estimate 4-Week Change | <b>0.8%</b>       |
| Expected Report Date          | <b>11/24/2020</b> |
| Earnings ESP                  | <b>0.4%</b>       |
| P/E TTM                       | <b>63.6</b>       |
| P/E F1                        | <b>58.3</b>       |
| PEG F1                        | <b>1.5</b>        |
| P/S TTM                       | <b>13.9</b>       |

### Sales Estimates (millions of \$)

|      | Q1      | Q2      | Q3      | Q4      | Annual* |
|------|---------|---------|---------|---------|---------|
| 2022 | 1,010 E | 1,073 E | 1,133 E | 1,213 E | 4,414 E |
| 2021 | 886 A   | 913 A   | 939 E   | 1,008 E | 3,749 E |
| 2020 | 736 A   | 797 A   | 843 A   | 899 A   | 3,274 A |

### EPS Estimates

|      | Q1       | Q2       | Q3       | Q4       | Annual*  |
|------|----------|----------|----------|----------|----------|
| 2022 | \$1.18 E | \$1.29 E | \$1.41 E | \$1.60 E | \$5.43 E |
| 2021 | \$0.85 A | \$0.98 A | \$0.95 E | \$1.07 E | \$3.85 E |
| 2020 | \$0.45 A | \$0.65 A | \$0.78 A | \$0.92 A | \$2.79 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 09/08/2020. The reports text is as of 09/09/2020.

## Overview

San Rafael, CA.-based Autodesk develops model-based design, engineering and documentation software. The company serves customers in architecture, engineering and construction; product design and manufacturing; and digital media and entertainment industries.

Autodesk recognizes revenue from the sale of product subscriptions, cloud service offerings, and Enterprise Business Agreements (EBAs), renewal fees for existing maintenance plan agreements that were initially purchased with a perpetual software license, and consulting, training and other goods and services. Autodesk reported revenues of \$3.27 billion in fiscal 2020. Total maintenance and subscription revenues accounted for 74.4% of revenues, while the rest came from License and other.

Autodesk has four product families: Architecture, Engineering and Construction (AEC) that, Manufacturing (MFG), AutoCAD and AutoCAD LT (ACAD) and Media and Entertainment (M&E).

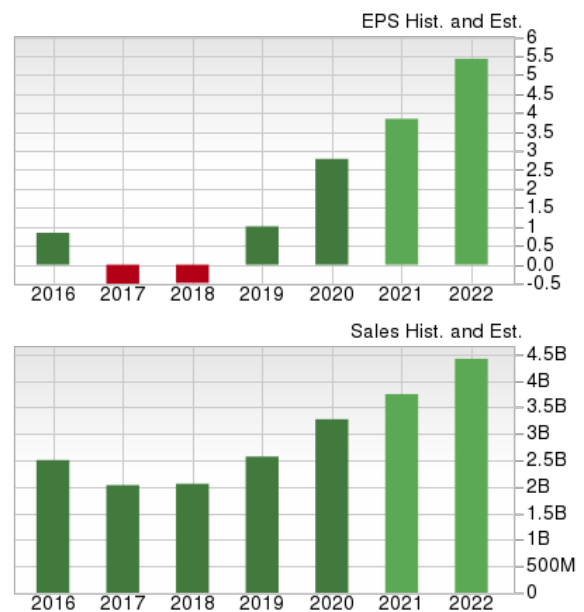
AEC solutions include AutoCAD Civil 3D, BIM 360, Industry Collections and PlanGrid to improve the way building, infrastructure, and industrial projects are designed, built, and operated. The product segment contributed 42% to revenues in fiscal 2020.

MFG, which includes CAM solutions, Fusion 360, Vault and Industry Collections, provides manufacturers in automotive, transportation, industrial machinery, consumer products and building product industries with comprehensive digital design, engineering, manufacturing and production solutions. The product line contributed 22.1% to revenues in fiscal 2020.

ACAD comprises AutoCAD and AutoCAD LT. AutoCAD software is a customizable and extensible CAD application for professional design, drafting, detailing, and visualization. AutoCAD LT software is purpose built for professional drafting and detailing. The product line contributed 28.9% to revenues in fiscal 2020.

Media and entertainment products includes Maya, Shotgun, 3ds Max and Industry Collections that provide tools for digital sculpting, modeling, animation, effects, rendering, and compositing for design visualization, visual effects and games production. The product segment contributed 6.1% to revenues.

Geographically, Americas contributed 41.5% to revenues in fourth-quarter fiscal 2020. Europe, Middle East, and Africa (EMEA) and Asia Pacific contributed 40.6% and 40.1% to revenues, respectively.



Source: Zacks Investment Research

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## Reasons To Buy:

- ▲ Autodesk's business transition from perpetual licenses to cloud-based subscription services is expected to benefit it in the long run by boosting subscriptions and deferred revenues. Also, in order to influence customers to move from maintenance subscriptions to product subscription, management is offering discount, which is increasing subscription base. Moreover, growth in total ARR and annualized revenues per subscription (ARPS) is positive. Additionally, the company is gaining from robust performance of the EBA program.
- ▲ We remain positive on Autodesk's long-term growth prospects as it is well positioned to capitalize on the rapid adoption of computer-aided designing and manufacturing through its comprehensive product portfolio. We believe that higher demand for the company's cloud-based products (BIM 360 cloud platform, Shotgun and Fusion Lifecycle), mobile products (AutoCAD 360) and design suites will drive top-line growth. Autodesk is also benefiting from its investment in digital infrastructure that includes its e-store. Moreover, the company remains focused on undertaking more cost-cutting initiatives as a part of its business transition. This is likely to boost profitability in the long haul.
- ▲ Amid the coronavirus pandemic Autodesk's software as a service (SaaS)-based business model is helpful to remote working than on-premise software. As the pandemic has forced teams to collaborate remotely, cloud-based tools have become a staple making Autodesk ahead of the curve in this regard.
- ▲ Autodesk's growing software suite continues to add new features and iterations. The company is gradually moving into virtual reality design tools and augmented reality applications for devices like Microsoft's HoloLens 2. These products are already starting to make their way into the market from third-party vendors.
- ▲ Autodesk's aggressive acquisition strategy has also played a pivotal part in developing its business over the last couple of years. The company continues to expand its product portfolio through the acquisition of small start-ups that are easy to integrate into its own business line. Autodesk acquired PlanGrid in a bid to expand its presence in the construction space. Meanwhile, BuildingConnected's acquisition enabled Autodesk to add bid-management capabilities to its construction portfolio. We believe that Autodesk will continue to pursue strategic acquisitions in order to expand its cloud and mobile-based offerings over the long term.

Autodesk is expected to benefit from the increasing subscriptions revenues, robust demand for BIM 360 cloud platform offerings, acquisitions and solid balance sheet.

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## Reasons To Sell:

- ▼ Autodesk's top-line growth over the last couple of years has been negatively impacted by the ongoing business model transition. The continuing movement from perpetual licenses to cloud-based services as well as migration of maintenance plan customers to subscription plan offerings has hurt revenues and the trend is expected to continue in the near term.
- ▼ Higher spending (cost of revenues + operating expenses) continues to weigh on profitability. Although restructuring programs are corrective measures to realign cost, their success often depends on execution. Most importantly, we believe that there is a certain limit up to which costs can be curtailed, after which investments are needed to boost organic growth. However, the company's plan to continue to shift to mobile and cloud computing will increase investments. In the long term, we believe that restructuring programs will not be enough to boost earnings and the company will need to generate organic revenue growth in order to yield profits.
- ▼ Autodesk has significant product concentration. The company derives a significant portion of its revenues from AutoCAD and AutoCAD LT, which contributed 28.9% to revenues in fiscal 2019 compared with 28.3% in fiscal 2019.
- ▼ Moreover, Autodesk generates significant portion of revenues from international operations. Despite hedging program, the exposure makes the company vulnerable to foreign currency volatility.negative shareholder equity, which is a concern.
- ▼ The company also has a leveraged balance sheet. Although the company's net debt was \$169.8 million as of Jul 31, 2020, compared with \$214 million as of Apr 30, 2020, the significant debt burden might hinder near-term growth.

Autodesk's ongoing business model transition, higher spending, product concentration and foreign currency exposure are major headwinds.

## Last Earnings Report

### Autodesk Q2 Earnings Top Estimates, Revenues Rise Y/Y

Autodesk reported second-quarter fiscal 2021 non-GAAP earnings of 98 cents per share that beat the Zacks Consensus Estimate by 8.9%.

Moreover, the earnings figure increased 50.8% year over year driven by growth in subscription plan revenues, led by product subscription revenues.

Revenues of \$913.1 million beat the consensus mark by 1.3% and grew 14.6% year over year. At constant currency (cc), revenues were up 16%. The growth was driven by higher subscription revenues despite softness in software spending due to the coronavirus outbreak.

Autodesk benefited from the ongoing transition to cloud. The company witnessed increased usage of its cloud collaboration products due to the remote working wave throughout the quarter.

### Top-Line Details

Subscription revenues (92.1% of revenues) increased 26.7% year over year to \$841.2 million.

However, maintenance revenues (5.6% of revenues) slumped 50.5% to \$51.2 million. Moreover, other revenues (2.3% of revenues) decreased 30.1% to \$20.7 million in the reported quarter.

Recurring revenues represented 98% of Autodesk's second-quarter fiscal 2021 revenues. Net revenue retention rate was within 110% to 110%.

Geographically, revenues from the Americas (40.7% of revenues) increased 14% from the year-ago quarter to \$371.5 million. Europe, Middle East and Africa (EMEA) revenues (38.8% of revenues) increased 12.2% to \$354.7 million. Revenues from Asia-Pacific (20.5% of revenues) grew 20.8% to \$186.9 million.

Meanwhile, billings of \$787 million decreased 12% year over year in the reported quarter.

### Product-wise Top-line Details

Autodesk offers primarily four product families, Architecture, Engineering and Construction (AEC), AutoCAD and AutoCAD LT, Manufacturing (MFG), and Media and Entertainment (M&E).

AEC (43.5% of revenues) revenues increased 18.8% year over year to \$397 million. AutoCAD and AutoCAD LT (29.8% of revenues) revenues rose 17.6% to \$271.9 million. MFG (20.3% of revenues) revenues increased 6.2% to \$185.5 million.

M&E (5.8% of revenues) increased 4.9% to \$53.3 million while other revenues (0.6% of revenues) declined 8.5% to \$5.4 million.

Autodesk witnessed steady renewal rates during the reported quarter and in May. Partial renewal rates remained relatively steady as well.

### Operating Results

Non-GAAP gross margin expanded 90 basis points (bps) from the year-ago quarter to 92.6%.

Research & development, marketing & sales and general & administrative expenses as a percentage of revenues declined 160 bps, 170 bps and 120 bps year over year, respectively.

As a result, non-GAAP operating expenses, as a percentage of revenues, contracted 440 bps from the year-ago quarter to 63.9%.

The lower operating expenses reflected disciplined cost management in the reported quarter. The company reduced travel and entertainment expense and monitored hiring rate and marketing spend amid the coronavirus lockdown.

Autodesk reported non-GAAP operating income of \$262.4 million compared with the year-ago quarter's figure of \$186.5 million.

### Key Q2 Details

During the quarter, Autodesk announced new integration capabilities for Autodesk Construction Cloud with the release of a new integration platform, Autodesk Construction Cloud Connect and an expansion of its partner ecosystem. Autodesk added new APIs, enabling custom connections for BIM 360 and PlanGrid, and 15 new native integrations and bringing the total number of direct integrations in the Autodesk Construction Cloud ecosystem up to more than 140.

Moreover, Autodesk announced the early release of the BIM 360 Assets module within Autodesk Construction Cloud. The BIM 360 Assets module enables construction teams to track and manage project assets through the entire building lifecycle — from design through handover — from one centralized location.

On Jul 22, Autodesk announced signing of a definitive agreement to acquire Pype, a provider of cloud-based solutions for automating construction project management workflows.

The company completed the acquisition on Aug 17, 2020. This acquisition will provide additional value to Autodesk Construction Cloud users,

| Quarter Ending   | 07/2020      |
|------------------|--------------|
| Report Date      | Aug 25, 2020 |
| Sales Surprise   | 1.32%        |
| EPS Surprise     | 8.89%        |
| Quarterly EPS    | 0.98         |
| Annual EPS (TTM) | 3.53         |

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allowing general contractors, subcontractors, and owners to automate workflows such as submittals and project closeout to increase overall productivity, and reduce risk throughout the project lifecycle.

### **Balance Sheet & Cash Flow**

As of Jul 31, 2020, Autodesk had cash and cash equivalents (including marketable securities) of \$1.51 billion compared with \$1.46 billion as of Apr 30, 2020.

Deferred revenues increased 28% to \$2.88 billion. Unbilled deferred revenues at the end of the second quarter were \$4469 million.

Remaining performance obligations (RPO) totaled \$3.3 billion, up 19%. Current RPO totaled \$2.3 billion, up 15%.

The company repurchased shares worth \$7.8 million. Cash flow from operating activities was \$91 million, compared with \$327 million posted in the previous quarter. Free cash flow was \$64.4 million, compared with the previous quarter's figure of \$307 million.

### **Guidance**

For third-quarter fiscal 2021, Autodesk expects revenues between \$930 million and \$945 million. Non-GAAP earnings are anticipated to be in the range of 91-97 cents per share.

For fiscal 2021, Autodesk expects revenues between \$3.71 billion and \$3.76 billion, indicating growth in the range of 13.5-15% year over year. Non-GAAP earnings are expected between \$3.72 and \$3.90 per share.

Billings are projected to be \$4.07-\$4.17 billion, implying a decline of 3% to growth of 0.5% year over year.

Further, net revenue retention rate is expected in the range of 110%-120% for the rest of the year.

Free cash flow is expected between \$1.3 billion and \$1.4 billion.

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## Recent News

On Aug 17, Autodesk announced the completion of the acquisition of Pype, a provider of cloud-based solutions for automating construction project management workflows. This acquisition will provide additional value to Autodesk Construction Cloud users, allowing general contractors, subcontractors, and owners to automate workflows such as submittals and project closeout to increase overall productivity, and reduce risk throughout the project lifecycle.

On Jul 22, Autodesk announced it has signed a definitive agreement to acquire Pype, a provider of cloud-based solutions for automating construction project management workflows. The transaction is subject to customary closing conditions and is expected to close during Autodesk's third quarter of fiscal 2021, ending Oct 31, 2020.

On May 27, Autodesk announced new integration capabilities for Autodesk Construction Cloud with the release of a new integration platform Autodesk Construction Cloud Connect and an expansion of its partner ecosystem. Autodesk added new APIs, enabling custom connections for BIM 360 and PlanGrid, and 15 new native integrations and bringing the total number of direct integrations in the Autodesk Construction Cloud ecosystem up to more than 140.

On May 19, Autodesk announced the early release of the BIM 360 Assets module within Autodesk Construction Cloud. The BIM 360 Assets module enables construction teams to track and manage project assets through the entire building lifecycle — from design through handover — from one centralized location.

On Apr 14, Autodesk announced an alliance with Aurigo software to bolster construction technology offering for owners. The integration of Aurigo with Autodesk Construction Cloud will give owners a single end-to-end technology platform for design, planning, construction and operations of infrastructure and private assets.

On Apr 8, Autodesk announced BIM 360 Design, part of Autodesk Construction Cloud, expanded global collaboration with a new Europe-based data center offering for primary storage of product data. Also, the company established a connection to collaboration for Plant 3D.

## Valuation

Autodesk shares are up 22.3% in the year-to-date period and 51.5% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 26% and 19.5% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and the sector are up 39.8% and 32.3%, respectively.

The S&P 500 index is up 3.6% in the year-to-date period and 12.5% in the past year.

The stock is currently trading at 11.85X forward 12-month sales, which compares to 7.43X for the Zacks sub-industry, 4.16X for the Zacks sector and 4.08X for the S&P 500 index.

Over the past five years, the stock has traded as high as 13.83X and as low as 4.16X, with a 5-year median of 9.75X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$236 price target reflects 12.44X forward 12-month sales.

The table below shows summary valuation data for ADSK

| Valuation Multiples - ADSK |               |       |              |        |         |
|----------------------------|---------------|-------|--------------|--------|---------|
|                            |               | Stock | Sub-Industry | Sector | S&P 500 |
| P/S F12M                   | Current       | 11.85 | 7.43         | 4.16   | 4.08    |
|                            | 5-Year High   | 13.83 | 8.21         | 4.49   | 4.29    |
|                            | 5-Year Low    | 4.16  | 3.88         | 2.7    | 3.11    |
|                            | 5-Year Median | 9.75  | 5.76         | 3.42   | 3.66    |
| EV/Sales TTM               | Current       | 13.92 | 8.25         | 4.68   | 3.79    |
|                            | 5-Year High   | 16.21 | 9.4          | 5.22   | 4.15    |
|                            | 5-Year Low    | 3.5   | 3.32         | 2.85   | 2.6     |
|                            | 5-Year Median | 11.98 | 5.81         | 3.81   | 3.55    |

As of 09/08/2020

Source: Zacks Investment Research

## Industry Analysis Zacks Industry Rank: Top 26% (66 out of 251)



Source: Zacks Investment Research

## Top Peers

| Company (Ticker)                    | Rec        | Rank |
|-------------------------------------|------------|------|
| Apple Inc. (AAPL)                   | Outperform | 2    |
| ANSYS, Inc. (ANSS)                  | Outperform | 2    |
| Avid Technology, Inc. (AVID)        | Outperform | 2    |
| Adobe Systems Incorporated (ADBE)   | Neutral    | 3    |
| Cadence Design Systems, Inc. (CDNS) | Neutral    | 2    |
| Oracle Corporation (ORCL)           | Neutral    | 3    |
| PTC Inc. (PTC)                      | Neutral    | 3    |
| Trimble Inc. (TRMB)                 | Neutral    | 3    |

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

| Industry Comparison Industry: Computer - Software |           |            |           | Industry Peers |            |         |
|---------------------------------------------------|-----------|------------|-----------|----------------|------------|---------|
|                                                   | ADSK      | X Industry | S&P 500   | ANSS           | AVID       | PTC     |
| Zacks Recommendation (Long Term)                  | Neutral   | -          | -         | Outperform     | Outperform | Neutral |
| Zacks Rank (Short Term)                           | 3         | -          | -         | 2              | 2          | 3       |
| VGM Score                                         | B         | -          | -         | F              | B          | B       |
| Market Cap                                        | 49.20 B   | 1.56 B     | 22.91 B   | 26.48 B        | 327.45 M   | 10.07 B |
| # of Analysts                                     | 9         | 4          | 14        | 5              | 3          | 7       |
| Dividend Yield                                    | 0.00%     | 0.00%      | 1.66%     | 0.00%          | 0.00%      | 0.00%   |
| Value Score                                       | D         | -          | -         | F              | B          | D       |
| Cash/Price                                        | 0.03      | 0.08       | 0.07      | 0.03           | 0.17       | 0.04    |
| EV/EBITDA                                         | 104.86    | 17.89      | 12.82     | 43.23          | 12.27      | 76.43   |
| PEG F1                                            | 1.56      | 2.36       | 2.90      | NA             | NA         | 1.12    |
| P/B                                               | 731.02    | 6.37       | 3.15      | 7.68           | NA         | 7.56    |
| P/CF                                              | 106.81    | 22.60      | 12.45     | 47.05          | 10.86      | 53.71   |
| P/E F1                                            | 59.41     | 33.22      | 21.08     | 50.31          | 14.06      | 36.83   |
| P/S TTM                                           | 13.89     | 4.40       | 2.43      | 17.41          | 0.87       | 7.18    |
| Earnings Yield                                    | 1.72%     | 2.84%      | 4.52%     | 1.99%          | 7.11%      | 2.71%   |
| Debt/Equity                                       | 24.31     | 0.24       | 0.70      | 0.12           | -1.64      | 0.85    |
| Cash Flow (\$/share)                              | 2.10      | 1.19       | 6.93      | 6.56           | 0.69       | 1.61    |
| Growth Score                                      | A         | -          | -         | D              | B          | A       |
| Historical EPS Growth (3-5 Years)                 | NA%       | 9.39%      | 10.41%    | 14.28%         | -40.26%    | 4.68%   |
| Projected EPS Growth (F1/F0)                      | 37.87%    | 10.25%     | -4.73%    | -6.78%         | 3.92%      | 43.55%  |
| Current Cash Flow Growth                          | 280.74%   | 6.56%      | 5.22%     | 8.84%          | 12.92%     | -3.70%  |
| Historical Cash Flow Growth (3-5 Years)           | 8.91%     | 9.63%      | 8.49%     | 7.79%          | -13.66%    | -9.76%  |
| Current Ratio                                     | 0.84      | 1.51       | 1.35      | 2.38           | 1.16       | 1.27    |
| Debt/Capital                                      | 96.05%    | 27.95%     | 42.95%    | 10.97%         | NA         | 45.86%  |
| Net Margin                                        | 10.26%    | 6.61%      | 10.25%    | 26.17%         | 3.87%      | 6.21%   |
| Return on Equity                                  | -457.10%  | 10.54%     | 14.59%    | 12.91%         | -7.75%     | 16.99%  |
| Sales/Assets                                      | 0.63      | 0.60       | 0.50      | 0.35           | 1.31       | 0.43    |
| Projected Sales Growth (F1/F0)                    | 14.49%    | 2.10%      | -1.42%    | 5.67%          | -14.00%    | 8.87%   |
| Momentum Score                                    | B         | -          | -         | D              | C          | B       |
| Daily Price Change                                | -4.07%    | -1.62%     | -1.95%    | -3.92%         | -1.97%     | -1.12%  |
| 1-Week Price Change                               | -5.46%    | -3.20%     | -1.28%    | -4.60%         | -7.32%     | -3.80%  |
| 4-Week Price Change                               | -1.94%    | -0.35%     | -1.93%    | 2.22%          | -12.04%    | 2.25%   |
| 12-Week Price Change                              | -6.88%    | 3.61%      | 3.73%     | 9.21%          | -0.53%     | 8.97%   |
| 52-Week Price Change                              | 51.54%    | 16.72%     | -0.29%    | 46.69%         | 9.88%      | 29.40%  |
| 20-Day Average Volume (Shares)                    | 1,437,800 | 150,971    | 1,798,028 | 355,542        | 392,987    | 690,297 |
| EPS F1 Estimate 1-Week Change                     | 0.00%     | 0.00%      | 0.00%     | 0.00%          | 0.00%      | 0.00%   |
| EPS F1 Estimate 4-Week Change                     | 0.85%     | 0.00%      | 0.00%     | -0.22%         | 0.00%      | 0.53%   |
| EPS F1 Estimate 12-Week Change                    | 1.68%     | 4.91%      | 3.98%     | 2.18%          | 96.08%     | 3.49%   |
| EPS Q1 Estimate Monthly Change                    | -4.57%    | 0.00%      | 0.00%     | -5.83%         | 0.00%      | -7.72%  |

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 | B |
| 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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## 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.