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Mar 03, 2021

## Public Storage (PSA)

**$233.57** (As of 03/02/21)

Price Target (6-12 Months): **$250.00**

| | | |
|---|---|---|
| Long Term: 6-12 Months | **Zacks Recommendation:** (Since: 02/11/19) Prior Recommendation: Underperform | **Neutral** |
| Short Term: 1-3 Months | **Zacks Rank:** (1-5) | **3-Hold** |
| | Zacks Style Scores: | VGM:D |
| | Value: D \| Growth: D \| Momentum: A | |

## Summary

Public Storage's better-than-expected fourth-quarter 2020 results reflected an improvement in occupancy. The company benefited from its expansion efforts through acquisitions, development and extensions. It witnessed a decrease in on-site property manager payroll. However, the company was adversely impacted by lower realized annual rent per occupied square foot. Notably, this self-storage REIT is one of the largest owners and operators of storage facilities in the United States. It is likely to gain from high brand value, economies of scale, expansion efforts through acquisitions and development, and a healthy balance sheet. Shares have outperformed the industry over the past six months. Yet, a development boom of self-storage units in many markets and a likely rise in move-out rates with the abatement of the pandemic are key concerns.

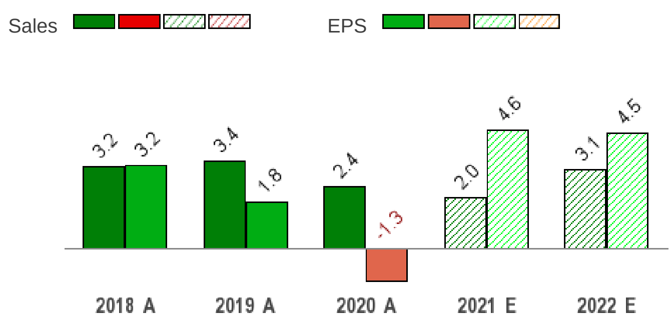
## Price, Consensus & Surprise


*Source: Zacks Investment Research*

## Data Overview

| | |
|---|---|
| 52-Week High-Low | **$246.52 - $155.37** |
| 20-Day Average Volume (Shares) | **738,981** |
| Market Cap | **$41.0 B** |
| Year-To-Date Price Change | **1.5%** |
| Beta | **0.08** |
| Dividend / Dividend Yield | **$8.00 / 3.4%** |
| Industry | **REIT and Equity Trust - Other** |
| Zacks Industry Rank | **Bottom 17% (210 out of 254)** |
| Last EPS Surprise | **2.8%** |
| Last Sales Surprise | **3.0%** |
| EPS F1 Estimate 4-Week Change | **1.4%** |
| Expected Report Date | **04/29/2021** |
| Earnings ESP | **1.5%** |
| P/E TTM | **22.1** |
| P/E F1 | **21.0** |
| PEG F1 | **5.3** |
| P/S TTM | **14.1** |

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




## Sales Estimates (millions of $)

| | Q1 | Q2 | Q3 | Q4 | Annual* |
|---|---|---|---|---|---|
| 2022 | 744 E | 760 E | 770 E | 765 E | 3,065 E |
| 2021 | 730 E | 742 E | 748 E | 743 E | 2,973 E |
| 2020 | 716 A | 709 A | 731 A | 749 A | 2,915 A |

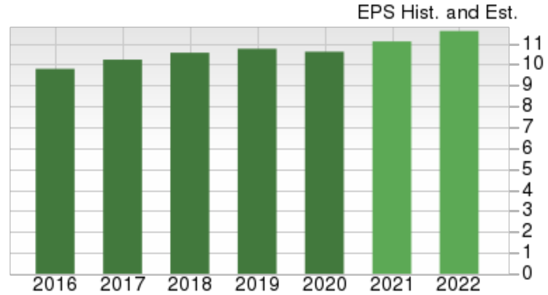
## EPS Estimates

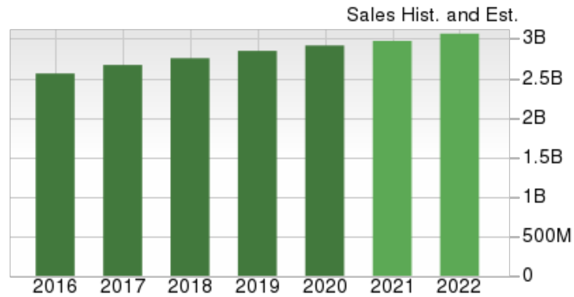
| | Q1 | Q2 | Q3 | Q4 | Annual* |
|---|---|---|---|---|---|
| 2022 | $2.80 E | $2.85 E | $2.94 E | $3.08 E | $11.60 E |
| 2021 | $2.67 E | $2.72 E | $2.79 E | $2.94 E | $11.10 E |
| 2020 | $2.58 A | $2.46 A | $2.63 A | $2.93 A | $10.61 A |

*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 03/02/2021. The report's text and the analyst-provided price target are as of 03/03/2021.

## Overview




Glendale, CA-based Public Storage is a leading self-storage real estate investment trust in the United States. The company acquires, develops, owns and operates self-storage facilities, generally on a month-to-month basis for business as well as personal use.

As of Dec 31, 2020, Public Storage had interests in 2,548 self-storage facilities (having around 175 million net rentable square feet) across 38 U.S. states. Moreover, the company had approximately 35% common equity interest in Shurgard Self Storage SA ("Shurgard Europe"), which owned 241 self-storage facilities (comprising 13 million net rentable square feet) across seven countries in Western Europe. These facilities are operating under the "Shurgard" brand name.

In addition, as of the same date, the company had 42% common equity interest in PS Business Parks — a REIT with commercial properties — with 28 million rentable square feet of commercial space.

Notably, on Oct 15, 2018, Shurgard Europe completed an initial public offering. Its shares started trading on Euronext Brussels under the "SHUR" symbol. Shurgard Europe issued 25 million of its common shares to third parties, at a price of €23 per share. As a result of this offering, Public Storage's equity interest, consisting of a direct and indirect pro-rata ownership interest in 31.3 million shares, shrunk from 49% to 35.2%. Therefore, even with no share sell-off, the company recorded a gain on disposition of $151.6 million in the fourth quarter 2019, which appeared as if the company had sold a proportionate share of its investment in Shurgard Europe.

Note: *All EPS numbers presented in this report represent funds from operations ("FFO") per share. FFO, a widely used metric to gauge the performance of REITs, is obtained after adding depreciation and amortization and other non-cash expenses to net income.*


*Source: Zacks Investment Research*

## Reasons To Buy:

> High brand value, strategic acquisitions, robust presence in key cities and healthy balance sheet serve as major growth drivers for Public Storage.

- Public Storage is one of the largest owners and operators of storage facilities in the United States. The 'Public Storage' brand is the most recognized and established name in the self-storage industry, with presence in all major metropolitan markets of the United States. Particularly, the company has market share and concentration in major metropolitan centers, with roughly 70% of its 2020 same-store revenues generated in the 20 Metropolitan Statistical Areas with the highest population levels. As such, apart from benefiting from brand recognition, the company is likely to gain from economies of scale. Moreover, the company remains well poised to benefit from approximately 35% stake in Shurgard Self Storage SA. In fact, the "Shurgard" brand, used by Shurgard Europe, is a well-established and valuable brand in Europe.

- The self-storage asset category is basically need-based and recession-resilient in nature. This asset class has low capital expenditure requirements and generates high operating margins. Additionally, the self-storage industry continues to benefit from favorable demographic changes. Specifically, migration and downsizing trendhave escalated the needs of consumers to rent space at a storage facility to park their possessions. Further, demand for self-storage spaces has shot up amid the flexible working environment as well as improving housing market, while move-outs remain low amid the health crisis, resulting in improved year-over-year occupancy trends and increased average length of stay. This supports revenue growth because of more long-term tenants becoming eligible for rate hikes, and a lesser need to replace vacating tenants with new tenants that lowers promotional expenses and increase its pricing leverage. Particularly, during the first half of 2021, the company expects continued revenue growth supported by increased customer demand and modest move out activity.

- In addition, Public Storage has been capitalizing on growth opportunities. During 2020, it acquired 62 self-storage facilities, comprising 5.1 million net rentable square feet for $796.1 million. These included six facilities in Ohio, five each in Michigan and Pennsylvania, four each in Alabama, Illinois, Minnesota and Texas, three each in California, Colorado, Florida, Georgia and Missouri, two each in Arizona, New York and Tennessee and one each in Indiana, Massachusetts, Maryland, Nebraska, Nevada, Oklahoma, Oregon, Utah and Washington. Following Dec 31, 2021, the company acquired or was under contract to acquire 40 self-storage facilities, spanning 3.5 million net rentable square feet of space across 18 states, for $580.1 million. During the fourth quarter, the REIT opened one newly-developed facility and various expansion projects (0.4 million net rentable square feet) in Missouri, Florida and Texas costing $41.3 million.Moreover, as of Dec 31, 2020, the company manages 92 facilities for third parties, and were under contract to manage 25 additional facilities including 24 facilities that are currently under construction. With a solid access to capital at low interest rates, the company is well poised to take advantage of a potential opportunity.

- The company is also leveraging on technology for revenue optimization and cost efficiencies and as such has invested in technologies over the past few years. To further enhance the move-in experience, the company initiated "eRental®" process in 2020. With this process prospective tenants (including those who initially reserved a space) accelerate the move-in activity through execution of a lease agreement from their smartphone or computer and then going directly to their space on the move-in date. Encouragingly, during fourth-quarter 2020, roughly half of customers elected this "eRental®" process. Moreover, last year, the company implemented technology solutions in the area of labor scheduling, an integrated customer smartphone application, automated and centralized property access systems, as well as website customer chat functions. Such efforts are likely to add to the company's competitive edge.

- Public Storage has one of the strongest balance sheets in the sector, with adequate liquidity to withstand the current challenging times, and bank on expansion opportunities through acquisitions and developments. The company exited 2020 with $257.6 million of cash and equivalents, and $475.7 million of available borrowing capacity on its revolving line of credit. The company has no material debt maturity until September 2022. Moreover, the company's debt maturity schedule is well-laddered that moderate its refinancing risk.The company maintains a strong financial profile characterized by solid credit metrics including low leverage relative to its total capitalization and operating cash flows plus enjoys an "A" credit rating from Standard & Poor's and an "A2" from Moody's. The sturdy credit profile and ratings enable the company to access both the public and the private capital markets to raise capital at favorable rates. As such, the company seems well poised to take advantage of a potential opportunity.

- Furthermore, robust dividend payouts are arguably the biggest enticement for investment in REIT stocks. In fact, the successful execution of such growth strategies and efforts to enhance the operating platform have enabled the company to see a 20-year CAGR of 12% in dividends per share. Given the company's financial position and a lower debt-to-equity ratio compared to that of the industry's average, its current dividend payout is expected to be sustainable.

- Shares of Public Storage have gained 10.6% over the past six months compared with the industry's increase of 3.6%. Moreover, the trend in estimate revisions for 2021 FFO per share indicates a favorable outlook for the company. The Zacks Consensus Estimates for the same witnessed marginal upward revision over the past week. Therefore, given the progress on fundamentals and upward estimate revisions, the stock has a decent upside potential.

## Reasons To Sell:

A development boom of self-storage units in many markets, a likely rise in move-out rates with the abatement of the pandemic and a huge development and expansion pipeline remain key concerns.

- Public Storage operates in a highly fragmented market in the United States, with intense competition from numerous private, regional and local operators. In addition, in recent years, supply has been increasing in a number of markets. Particularly, the REIT continues being impacted by construction of new facilities that has been most prominent in Atlanta, Austin, Charlotte, Chicago, Dallas, Denver, Houston, Miami, Minneapolis, New York and Portland. This is likely to fuel competition for the company, affecting occupancies, curbing its power to raise rents and turn on more discounting.

- The company witnessed a decrease in move-out activity in recent quarters due to transitory factors associated with the pandemic. However, such factors are likely to moderate as tenants revert to more normal move-out behavior as the impact of the pandemic abates. This might strain move-out trends, and lead to negative pressure on revenue trends. In fact, management noted that there is a risk to both move-outs as well as lingering state of emergency pricing restrictions as it navigates through the year. These impact the company's ability to raise move-in rents as well as existing tenant price increases over time. Moreover, management noted that property tax expense growth is expected to pick up with a 5.5% increase estimated for the year mainly on higher assessed values and to a lesser extent, increased tax rates.

- The company has a significant development and refurbishment pipeline. As of Dec 31, 2020, Public Storage had several facilities in development (1.4 million net rentable square feet), with an estimated cost of $235 million, as well as expansion projects (2.2 million net rentable square feet) worth $326 million. It expects to incur the remaining $373 million of development costs related to these projects, mainly over the next 18-24 months. Though this is encouraging, the substantial pipeline increases operational risks and exposes the company to rising construction costs, entitlement delays and failure to fulfill government requirements. Further, self-storage spaces are not usually pre-leased and new assets generally take time to generate yields.

## Last Earnings Report

### Public Storage Q4 FFO Beats on Occupancy Gains, NOI Climbs

| Quarter Ending | 12/2020 |
|---|---|
| Report Date | Feb 24, 2021 |
| Sales Surprise | 2.99% |
| EPS Surprise | 2.81% |
| Quarterly EPS | 2.93 |
| Annual EPS (TTM) | 10.60 |

Public Storage's fourth-quarter 2020 core FFO per share of $2.93 surpassed the Zacks Consensus Estimate of $2.85. The figure also increased 3.2% year one year from $2.84.

Quarterly revenues of $748.5 million exceeded the Zacks Consensus Estimate $726.8 million. Moreover, revenues increased 4% year on year.

Results reflect an improvement in occupancy in the reported quarter. The company also benefited from its expansion efforts through acquisitions, development and extensions. In addition, it witnessed a decrease in on-site property manager payroll. However, the company was adversely impacted by lower realized annual rent per occupied square foot.

For full-year 2020, the company reported core FFO per share of $10.61, representing a 1.3% decrease year on year. Yet, revenues came in at $2.9 billion, up 2.1% year on year.

### Behind the Headlines

Public Storage’s same-store revenues inched up 0.8% year over year to $619.5 million during the fourth quarter, highlighting improved occupancy. Particularly, weighted-average square foot occupancy of 95.2% expanded 2.3% year over year. Nonetheless, this upswing was partly offset by a 0.2% decrease in realized annual rental income per occupied square foot to $17.56.

Same-store cost of operations edged down 1.1% year over year, mainly reflecting a 9.3% fall in on-site property manager payroll. Consequently, the company’s same-store net operating income (NOI) increased 1.3% to $478.6 million.

Also, the REIT’s NOI increase from non-same store facilities was $10.2 million, on the back of the facilities acquired in 2019 and 2020, as well as the fill-up of the recently-developed and expanded facilities.

### Portfolio Activity

During the December-end quarter, Public Storage acquired 43 self-storage facilities, comprising 3.7 million net rentable square feet of area, for $513.7 million. These included five facilities each in Michigan and Pennsylvania, four each in Alabama, Illinois and Texas, three each in Georgia and Missouri, two each in Arizona, Colorado, Florida, Minnesota and Ohio and one each in Maryland, Nevada, Oklahoma, Oregon and Washington. Following Dec 31, 2021, the company acquired or was under contract to acquire 40 self-storage facilities, spanning 3.5 million net rentable square feet of space across 18 states, for $580.1 million.

During the fourth quarter, the REIT opened one newly-developed facility and various expansion projects (0.4 million net rentable square feet) in Missouri, Florida and Texas costing $41.3 million.

Finally, as of Dec 31, 2020, Public Storage had several facilities in development (1.4 million net rentable square feet), with an estimated cost of $235 million, as well as expansion projects (2.2 million net rentable square feet) worth $326 million. It expects to incur the remaining $373 million of development costs related to these projects, mainly over the next 18-24 months.

### Balance Sheet Position

Public Storage exited 2020 with $257.6 million of cash and equivalents, down from the $409.7 million recorded at the end of 2019.

## Recent News

**Public Storage Taps Debt Market to Fund Expansion Moves – Jan 14, 2021**

Public Storage priced a public offering of $500 million of senior notes. Bearing interest at an annual rate of 0.875%, these notes are issued at 99.817% of par value. Starting Aug 15, 2021, the interest on the notes will be payable semi-annually on Feb 15 and Aug 15 of each year. It is scheduled to mature on Feb 15, 2026.

The self-storage REIT plans to use the net proceeds for investments in its expansion efforts. This includes investments in self-storage facilities as well as in entities that own self-storage facilities. Also, investments involve the development of self-storage facilities as well as for general corporate needs plus preferred shares redemption.

**Public Storage Notes Key Growth Initiatives – Dec 14, 2020**

Responding to a letter from Elliott Associates, L.P. and Elliott International, L.P, Public Storage issues a statement indicating that it will "continue to take decisive action to drive sustainable value creation".

The company is one of the largest owners and operators of storage facilities in the United States. In fact, the 'Public Storage' brand is the most recognized and established name in the self-storage industry. This success is supported by its growth strategies, including acquisitions, development and redevelopment efforts to improve customer satisfaction.

In fact, the company noted that since the start of 2019, it has expanded the portfolio by 13.9 million net rentable square feet on the back of buyouts, development and redevelopment worth $1.9 billion. This also includes the $500-million acquisition of the Beyond Storage portfolio.

Over the same period, Public Storage has delivered $471 million of properties through its development platform and has a current pipeline of $563 million activity planned. Public Storage has also enhanced the scale of its third-party property management business by adding 113 properties.

Other than these organic and inorganic growth measures, the company continued to be focused on its $500-million,five year"Property of Tomorrow" investment program. This program is aimed at improving customer satisfaction and enhancing its existing portfolio.

To fund such growth moves, the company has raised more than $3 billion of debt and preferred capital.

Additionally, it has been emphasizing both occupancy and rent optimization, and this has been driving revenue growth and impressive revenue per available foot. Further, by allocating capital in its in-house technology platform, it has been able to witness efficiencies in operational capability, workflows and labor, while enhancing customer and employee experiences.

Markedly, the successful execution of such growth strategies and efforts to enhance operating platform have enabled the company to see a 20-year CAGR of 7% in core funds from operations (FFO) per share and 12% in dividends per share.

**Public Storage Closes 1st Phase of Premium Assets Buyout – Dec 9, 2020**

Public Storage announced closing of the first phase of the previously-announced newly built, high-quality Beyond Self Storage portfolio acquisition. The move comes as part of its opportunistic growth strategy.

In the first phase, 24 existing properties, spanning 2.3 million net rentable square feet, built since 2016, with an average occupancy of roughly 35% are being added to Public Storage's portfolio. In total, the Beyond Self Storage portfolio acquisition involves 36 properties with 3.6 million net rentable square feet of space, for which Public Storage has agreed to shell out $528 million.

The second phase will bring in 12 properties with 1.3 million net rentable square feet to Public Storage's portfolio. These properties are presently under various stages of development and their acquisition will take place upon completion in 2021.

**Dividend Update**

On Feb 16, the company announced a regular quarterly dividend of $2 per common share. The dividend will be paid on Mar 31, to shareholders of record as of Mar 16, 2021.

## Valuation

Public Storage's  shares have been up 3.7% over the trailing 12-month period. Stocks in the Zacks sub-industry declined 5.7%, while the Zacks Finance sector increased14.4%, over the past year, respectively.

The S&P 500 Index is up 26.9% over the past year.

The stock is currently trading at 20.96X forward 12-month FFO, which compares with 19.26X for the Zacks sub-industry, 16.89X for the Zacks sector and 22.32X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 27.86X and as low as 14.57X, with a 5-year median of 20.28X. Our neutral recommendation indicates that the stock will perform in line with the market. Our $250 price target reflects 22.35X FFO.

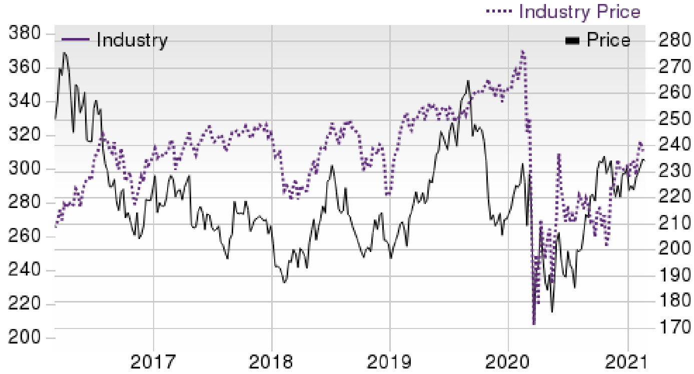
The table below shows summary valuation data for PSA.

**Valuation Multiples - PSA**

| | | Stock | Sub-Industry | Sector | S&P 500 |
|---|---|---|---|---|---|
| P/E F 12M | Current | 20.96 | 19.26 | 16.89 | 22.32 |
| | 5-Year High | 27.86 | 19.56 | 17.12 | 23.80 |
| | 5-Year Low | 14.57 | 14.58 | 11.59 | 15.30 |
| | 5-Year Median | 20.28 | 16.34 | 14.57 | 17.87 |
| P/S F12M | Current | 13.71 | 7.51 | 7.16 | 4.51 |
| | 5-Year High | 18.29 | 7.51 | 7.16 | 4.51 |
| | 5-Year Low | 9.49 | 5.45 | 5.02 | 3.21 |
| | 5-Year Median | 13.41 | 6.31 | 6.12 | 3.68 |
| P/B TTM | Current | 8.57 | 2.04 | 3.09 | 6.96 |
| | 5-Year High | 9.38 | 2.72 | 3.14 | 7.07 |
| | 5-Year Low | 5.59 | 1.63 | 1.74 | 3.84 |
| | 5-Year Median | 7.49 | 2.32 | 2.59 | 4.97 |

*As of 03/02/2021* *Source: Zacks Investment Research*

## Industry Analysis **Zacks Industry Rank:** Bottom 17% (210 out of 254)




*Source: Zacks Investment Research*

## Top Peers

| Company (Ticker) | Rec | Rank |
|---|---|---|
| CubeSmart **(CUBE)** | Neutral | 3 |
| Extra Space Storage Inc **(EXR)** | Neutral | 2 |
| Iron Mountain Incorporated **(IRM)** | Neutral | 3 |
| Life Storage, Inc. **(LSI)** | Neutral | 3 |
| National Storage Affiliates Trust **(NSA)** | Neutral | 3 |
| Safehold Inc. **(SAFE)** | Neutral | 2 |
| Innovative Industrial Properties, Inc. **(IIPR)** | Underperform | 5 |
| Gladstone Land Corporation **(LAND)** | Underperform | 4 |

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

## Industry Comparison Industry: Reit And Equity Trust - Other

| | PSA | X Industry | S&P 500 | CUBE | EXR | LSI |
|---|---|---|---|---|---|---|
| | | | | **Industry Peers** | | |
| **Zacks Recommendation (Long Term)** | Neutral | - | - | Neutral | Neutral | Neutral |
| **Zacks Rank (Short Term)** | 3 | - | - | 3 | 2 | 3 |
| **VGM Score** | D | - | - | C | F | D |
| Market Cap | 40.98 B | 2.80 B | 27.65 B | 7.23 B | 16.47 B | 6.28 B |
| # of Analysts | 9 | 4 | 13 | 7 | 8 | 6 |
| Dividend Yield | 3.41% | 3.40% | 1.4% | 3.76% | 2.89% | 3.55% |
| **Value Score** | D | - | - | D | F | D |
| Cash/Price | 0.01 | 0.04 | 0.06 | 0.00 | 0.01 | 0.01 |
| EV/EBITDA | 23.69 | 16.33 | 15.61 | 17.51 | 24.94 | 23.36 |
| PEG F1 | 5.25 | 3.29 | 2.34 | 4.72 | 6.23 | 5.29 |
| P/B | 8.57 | 1.43 | 3.83 | 4.02 | 5.58 | 2.60 |
| P/CF | 21.45 | 14.48 | 15.50 | 21.76 | 21.81 | 21.79 |
| P/E F1 | 21.00 | 16.21 | 20.73 | 20.00 | 22.05 | 19.30 |
| P/S TTM | 14.11 | 6.59 | 3.18 | 10.64 | 12.14 | 10.19 |
| Earnings Yield | 4.73% | 5.73% | 4.73% | 5.00% | 4.54% | 5.19% |
| Debt/Equity | 0.53 | 0.88 | 0.67 | NA | 1.96 | 0.92 |
| Cash Flow ($/share) | 10.93 | 1.78 | 6.77 | 1.66 | 5.72 | 3.82 |
| **Growth Score** | D | - | - | D | D | D |
| Historical EPS Growth (3-5 Years) | 3.54% | 0.68% | 9.32% | 5.33% | 8.76% | 3.10% |
| Projected EPS Growth (F1/F0) | 4.62% | 6.60% | 14.54% | 5.23% | 7.13% | 8.69% |
| Current Cash Flow Growth | -6.05% | -2.12% | 0.86% | -3.16% | 10.02% | -23.29% |
| Historical Cash Flow Growth (3-5 Years) | 1.92% | 10.20% | 7.37% | 16.69% | 13.10% | 10.49% |
| Current Ratio | 0.65 | 1.51 | 1.39 | 0.04 | 0.98 | 0.63 |
| Debt/Capital | 22.88% | 47.17% | 41.42% | 53.88% | 66.18% | 47.98% |
| Net Margin | 41.71% | 9.37% | 10.59% | 24.39% | 37.48% | 24.58% |
| Return on Equity | 26.19% | 2.98% | 14.75% | 12.49% | 18.16% | 6.99% |
| Sales/Assets | 0.25 | 0.11 | 0.51 | 0.23 | 0.15 | 0.14 |
| Projected Sales Growth (F1/F0) | 2.36% | 5.87% | 7.02% | 11.75% | 4.97% | 9.98% |
| **Momentum Score** | A | - | - | A | A | C |
| Daily Price Change | 1.06% | -0.63% | -0.34% | -0.74% | 0.76% | 0.07% |
| 1-Week Price Change | -0.32% | 0.22% | -1.51% | 1.43% | 5.07% | 1.15% |
| 4-Week Price Change | 1.79% | 3.40% | 3.38% | 2.00% | 6.50% | 1.08% |
| 12-Week Price Change | 5.66% | 4.74% | 5.67% | 12.88% | 9.82% | 11.59% |
| 52-Week Price Change | 7.68% | -3.91% | 24.18% | 14.92% | 18.06% | 9.99% |
| 20-Day Average Volume (Shares) | 738,981 | 612,597 | 1,998,609 | 1,264,202 | 797,680 | 508,382 |
| EPS F1 Estimate 1-Week Change | 0.73% | 0.00% | 0.00% | 1.63% | 0.00% | 0.00% |
| EPS F1 Estimate 4-Week Change | 1.44% | 0.00% | 0.32% | 2.69% | 8.21% | 1.55% |
| EPS F1 Estimate 12-Week Change | 2.70% | -0.54% | 2.13% | 5.34% | 13.68% | 4.17% |
| EPS Q1 Estimate Monthly Change | 2.22% | 0.00% | 0.00% | 3.88% | 5.66% | 2.33% |

*Source: Zacks Investment Research*

## 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.

## 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 | D |
| Momentum Score | A |
| VGM Score | D |

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

## Disclosures

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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 mediumterm 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 mostrecent dividend paid by the company. Dividend yield is an estimate of the dividend-only return from a stock in the next 12 months. Since dividend itself doesn’t change frequently, dividend yield usually changes with a stock’s price movement. As a result, often an unusually high dividend yield is a result of weak stock price.

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

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

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

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

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

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

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

**Periods:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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