

Pure Storage Inc.(PSTG)

\$18.32 (As of 11/16/20)

Price Target (6-12 Months): **\$19.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 02/19/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:D

Value: F

Growth: B

Momentum: C

Summary

Pure Storage is benefitting from robust uptake of Cloud Block Store, ObjectEngine Cloud and CloudSnap. Moreover, the company is gaining from solid adoption of Pure as-a-Service and Evergreen subscription services. The company is well-poised to gain from strength in FlashArray and FlashBlade businesses along with strong growth prospects in the data-driven markets of Artificial Intelligence (AI), machine learning, Internet of Things (IoT), Real-time Analytics and Simulation. Recently, the company provided upbeat preliminary third quarter fiscal 2021 revenue result. Shares have outperformed the industry on a year-to-date basis. However, coronavirus crisis-induced business uncertainty and sluggish enterprise IT spending are likely to dampen growth. Also, growing expenses on product development amid stiff competition from NetApp is a headwind.

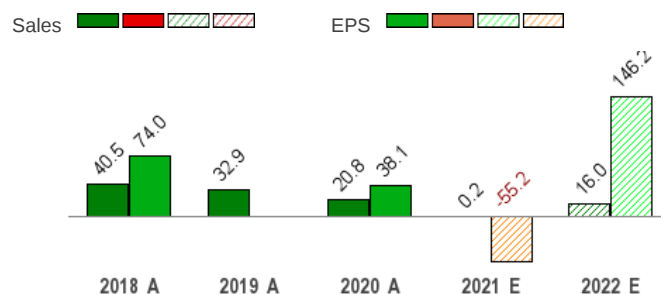
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$20.50 - \$7.93
20-Day Average Volume (Shares)	2,932,030
Market Cap	\$4.9 B
Year-To-Date Price Change	7.1%
Beta	1.40
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Computer- Storage Devices
Zacks Industry Rank	Bottom 48% (131 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	42.9%
Last Sales Surprise	2.2%
EPS F1 Estimate 4-Week Change	0.6%
Expected Report Date	11/24/2020
Earnings ESP	-66.7%
P/E TTM	45.8
P/E F1	140.9
PEG F1	7.2
P/S TTM	2.9

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	401 E	452 E	497 E	566 E	1,910 E
2021	367 A	404 A	406 E	468 E	1,646 E
2020	327 A	396 A	428 A	492 A	1,643 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	-\$0.06 E	\$0.03 E	\$0.11 E	\$0.23 E	\$0.32 E
2021	-\$0.02 A	\$0.06 A	-\$0.01 E	\$0.10 E	\$0.13 E
2020	-\$0.11 A	\$0.01 A	\$0.13 A	\$0.23 A	\$0.29 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 11/16/2020. The reports text is as of 11/17/2020.

Overview

Founded in 2009 and headquartered in Mountain View, CA, Pure Storage Inc. (PSTG) provides software-defined all-flash solutions that are uniquely fast and cloud-capable for customers.

The company is the pioneer of Evergreen Storage business model of hardware and software innovation, support and maintenance, which eliminates the 3–5 year forklift refresh cycle of legacy storage systems.

Pure Storage's primary offerings are FlashArray and FlashBlade products, which include Purity Operating Environment (Purity OE) software, Pure1 cloud-based software, and FlashStack, the company's joint converged infrastructure solution with Cisco.

Notably, the company also offers Cloud Data Services, a suite of new cloud offerings that aids customers to invest in single storage architecture. This data platform helps customers scale their businesses through real-time and accurate analytics, hereby increasing operational efficiency and enhancing user experience.

Moreover, the company's FlashArray features CloudSnap that enables efficient and cost-effective cloud backup as well as array- and volume-level recovery. Also, the company's Cloud Block Store offering delivers consistent data services, resiliency as well as APIs that helps customers run applications seamlessly across their hybrid cloud. Further, the Pure as-a-Service offering features on-premise and cloud storage as a service, that unifies hybrid clouds with a single subscription.

The company's platforms are designed to maximize the performance of flash, by taking advantage of native high bandwidth and low latency PCIe/NVMe networking.

Pure Storage became a public company in Oct 2015. The company's customer base comprises around 8,150 organizations, including more than 40% of the Fortune 500. The company's customers include enterprise and commercial organizations, cloud, Global Systems Integrators, consumer web, education, energy, financial services, governments, healthcare, manufacturing, media, retail and telecommunications.

The company reported revenues of \$1.643 billion in fiscal 2020.

Product revenues amounted to 75.4% of the total revenues, while Support contributed the rest of 24.6%.

Pure Storage faces significant competition from the likes of Hitachi, NetApp, Dell EMC, HP Enterprise, Lenovo and IBM.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ Adoption of flash storage is increasing rapidly, particularly at enterprises, due to inherent advantages of speed (i.e. responsiveness), portability, efficiency and reliability over legacy storage systems. Moreover, ongoing data explosion has become a major driver for flash storage systems. Market research firm IDC forecasts that by 2025, the global datasphere will grow to 175 zettabytes (that is a trillion gigabytes) compared with 33 zettabytes (ZB) generated in 2018. More importantly, almost 49% of this will be stored in the public cloud infrastructure. Due to the high performance and low latency features of flash-storage, it is the ideal storage technology to harness this data explosion. We believe that being a pure-play flash storage provider Pure Storage is well positioned to benefit from this trend. Shared storage (including NAS/SAN/Object/ Backup appliance) has a total addressable market (TAM) of almost \$26 billion, which presents significant growth opportunities. The company's expanding product portfolio that includes platforms like NVMe, Purity FlashBlade, 75 blades up to 8 PB of storage, Object Storage, and Active Cluster, Cloud solutions that run on Amazon Web Services or AWS holds promise.
- ▲ All-Flash Arrays (AFA) is gradually becoming the preferred storage choice of data-center operators as they have become more cost-effective as compared with traditional data storage systems. Moreover, usage of flash arrays lowers power consumption that reduces data center operating expenses (low electricity bill) over the long term. AFAs also require less space and they usually have a simpler user interface which makes management of the systems easy. These features are driving top-line growth. Gartner placed the company in the leader's quadrant in its latest Magic Quadrant for Primary Storage. We note that Pure Storage is regarded as a pioneer of the all-flash array category and the solid growth projections bodes well for long-term growth.
- ▲ The company is rapidly gaining traction in the flash storage market, which is evident from its accelerating customer base. Customer growth has been exemplary, count surging from 300 in first-quarter fiscal 2015 to 7,800 in first-quarter fiscal 2021, at a CAGR of 72.1%. During the second-quarter of fiscal 2021, Pure Storage added more than 300 customers, bringing the total count to more than 8,150 organizations. Increasing spending from top 25 customers is a major growth driver. Improving penetration into Global 2000 and Fortune 500 is also worth watching. We believe that customer base will continue to expand driven by the impressive product portfolio, innovative pipeline, strong partner base and growth potential from an almost untapped sales force (almost 60% has < 15 months tenure). Moreover, robust demand for FlashArray and FlashBlade products is projected to boost the top line.
- ▲ Pure Storage is targeting the 500 leading cloud providers to boost top-line growth. Moreover, increasing demand for flash storage (due to improving affordability) in the small and medium business (SMB) segment presents significant growth opportunity. The company also sees strong growth prospects in the data-driven markets of artificial intelligence (AI), machine learning, Internet of Things (IoT), Real-time Analytics, Log Analytics and Simulation. The company cited IDC data, which predicts that the cloud storage market will hit \$6 billion in fiscal 2020, witnessing a CAGR of 32%. The company's FlashBlade product has been gaining traction in the AI market. Additionally, the Pure1 META platform – which enables customers to forecast performance requirements to more accurately and timely provision of resources – has significant growth prospect over the long term.
- ▲ The company has a rich partner ecosystem, which is a growth driver. Its partnership with Cisco for FlashStack is worth mentioning. We believe that the hyper-converged solution will continue to gain traction among enterprises going forward. We believe that the expanding partner base, including NVIDIA will further drive customer base.
- ▲ Pure Storage has a strong balance sheet with ample liquidity position and no debt obligations. As of Aug 2, 2020, Pure Storage with cash, cash equivalents and marketable securities of \$1.293 billion, compared with \$1.274 billion as of May 3, 2020. Cash flow from operations in the second quarter of fiscal 2021 was \$50.7 million compared with \$35.1 million in the fiscal first quarter. Free cash flow was \$25.7 million in the second quarter of fiscal 2021 compared with \$11.3 million in the prior quarter. It is to be noted that the company has been able to regularly increase its cash and marketable securities as well as its cash from operations since 2014. The increasing liquidity and cash flow trend reflect that the company is making investments in the right direction. During fiscal second quarter, Pure Storage returned Pure Storage returned \$20 million to shareholders via share repurchases of 1.18 million shares in the second quarter of fiscal 2021, with approximately \$45 million remaining in share repurchase authorization. Since it carries no long-term debt, the cash is available for pursuing strategic acquisitions, investment in growth initiatives and distribution to shareholders.

Growing adoption of flash storage, advantages of AFA in data centers, impressive product portfolio, strong partner base and growth prospect in emerging data-driven markets are key positives.

Reasons To Sell:

- ▼ Pure Storage faces intensifying competition in the flash-based storage market. The competition has resulted in a decline in the average selling price (ASP). Any decline in ASP is likely to impact the results if shipments do not improve considerably.
- ▼ Moreover, lack of big-shot international customers is a headwind for the company. We note that revenues from customers outside the U.S. were 27.9% in fiscal 2020. The company doesn't have significant presence in the Asia-Pacific market, which has strong demand for flash-based storage systems. This is a headwind in our view.
- ▼ Further, Pure Storage has been incurring operating losses since inception and has an accumulated deficit of \$1.438 billion as of Aug 2, 2020. The company does not expect to generate profit sooner amid continuing investments on research & development and sales & marketing. Despite the increasing top line, mounting losses does not augur well for investor confidence in our view.
- ▼ The company is trading at premium in terms of Price/Book (P/B). Pure Storage currently has a trailing 12-month P/B ratio of 5.92X, which compares unfavorably with some extent with what the industry witnessed over the last year. Hence, valuation looks slightly stretched from P/B perspective.

Intensifying competition, lack of international customers and mounting losses are major concerns.

Last Earnings Report

Pure Storage Q2 Earnings Beat Estimates

Pure Storage Inc. reported non-GAAP earnings of 6 cents per share in second-quarter fiscal 2021, comparing favorably with the Zacks Consensus Estimate of a breakeven. The company had reported earnings of 1 cent per share in the year-ago quarter.

Total revenues improved 2% from the year-ago quarter's level to \$403.7 million. Further, the top line surpassed the Zacks Consensus Estimate by 2.15%.

Year-over-year increase in revenues can be attributed to momentum in subscription services, including Pure as-a-Service, Cloud Block Store, and Evergreen.

Quarter Details

In the fiscal second quarter, Product revenues (contributed 67% to total revenues) of \$272.3 million declined 9% on a year-over-year basis owing to coronavirus crisis induced sluggishness across the United States. Nevertheless, management noted strength in FlashBlade business segments primarily on the back of existing customers and continued expansion of customer base.

During the reported quarter, Pure Storage added more than 300 customers, bringing the total count to more than 8,150 organizations.

Robust adoption of FlashArray was also noteworthy.

Subscription revenues (33%) of \$131.4 million surged 37% on a year-over-year basis, driven by the company's ongoing support contracts and robust adoption of Pure as-a-Service, Cloud Block Store, and Evergreen subscription services.

Total revenues in the United States during the reported quarter amounted to \$282 million, down 4% year over year. Meanwhile, total International revenues of \$122 million, improved 20% on a year-over-year basis.

Margin Highlights

Non-GAAP gross margin expanded 40 basis points (bps) from the year-ago quarter's level to 69.8%. The expansion in gross margin can be attributed to growth in revenues and margin expansion of Product and Subscription services.

Non-GAAP Product gross margin expanded 10 bps from the year-ago quarter's level to 70.1%.

Non-GAAP Subscription gross margin came in at 69.2%, which expanded 180 bps on a year-over-year basis.

Total operating expenses increased 1.7% year over year to \$338.8 million. As a percentage of total revenues, the figure came in at 83.9%, which contracted 20 bps on a year-over-year basis.

Pure Storage reported a non-GAAP operating income of \$11.2 million in the fiscal second quarter, against an operating loss of \$3.2 million in the prior-year quarter.

Balance Sheet & Cash Flow

Pure Storage exited the quarter ended Aug 2, 2020, with cash, cash equivalents and marketable securities of \$1.293 billion, compared with \$1.274 billion as of May 3, 2020.

Cash flow from operations during the reported quarter was \$50.7 million compared with \$35.1 million in the fiscal first quarter.

Free cash flow was \$25.7 million compared with \$11.3 million in the prior quarter.

During fiscal second quarter, Pure Storage returned \$20 million to shareholders via share repurchases of 1.18 million shares, with approximately \$45 million remaining in share repurchase authorization.

Total deferred revenues in the fiscal second quarter were \$725 million, compared with \$706 million at the end of fiscal first quarter.

Remaining performance obligations (RPO) at the end of fiscal second quarter were \$956.4 million, up 4.9% and 24.2% on a sequential and a year-over-year basis, respectively. The metric represents total committed non-cancelable future revenues.

Quarter Ending	07/2020
Report Date	Aug 25, 2020
Sales Surprise	2.15%
EPS Surprise	42.86%
Quarterly EPS	0.06
Annual EPS (TTM)	0.40

Recent News

On Nov 13, Pure Storage stated that Portworx by Pure Storage was adjudged as a leader in the GigaOm Radar for Kubernetes Data Protection report.

On Nov 5, 2020, Pure Storage reported preliminary data for fiscal third-quarter 2021 revenues. Management expects preliminary fiscal third quarter revenues to be \$410 million. The company also named Dominick Delfino as the company's new chief revenue officer (CRO) as well as Global Head of Sales.

On Sep 29, Pure Storage made improvements to its VMware cloud portfolio for technologies like vSphere Virtual Volumes with VMware Cloud Foundation, Cloud Native Storage for Kubernetes on VMware, VMware Site Recovery Manager and NVMe over Fabric. This will ramp up deployment of hybrid cloud offerings.

On Sep 16, Pure Storage announced its plan to acquire Portworx to expand its cloud-services solutions for Kubernetes technology. The acquisition, valued at \$370 million, is the most expensive buyout for Pure Storage till date.

On Sep 10, Pure Storage announced that Atlantic Health Partners selected Pure Storage solutions to support its data infrastructure and Epic electronic health record (EHR) system. The migration will enable Atlantic Health Partners save up to a million dollars over the next six years.

On Aug 25, Pure Storage rolled out second generation FlashArray//C, cost effective storage array solution to provide customers with higher performance capabilities and enable them to run complex cloud workloads onto a single platform.

On Aug 12, Pure Storage unveiled its latest offering, Pure FlashRecover, in partnership with Cohesity. Pure FlashRecover provides all-flash data backup and recovery in case of a ransomware attack for the enterprises.

On Jul 15, Pure Storage announced that its FlashBlade offering has been adopted by Crater Labs to power its advance AI and machine learning systems. This includes risk identification models that help customers detect risk triggers in a post pandemic world.

On Jul 1, Pure Storage announced that its offerings have been selected by Children's of Alabama hospital to help reduce log-in times for clinical applications and optimize the time spent taking care of patients.

Valuation

Pure Storage shares are up 7.1% in the year-to-date period but down 10.5% in the trailing 12-month period. Stocks in the Zacks sub-industry are down 19.4%, while the same in the Zacks Computer & Technology sector are up 30.4% in the year-to-date period. In the past year, the Zacks sub-industry is down 15.2%, while the sector is up 35%.

The S&P 500 index is up 11.7% in the year-to-date period and 15.3% in the past year.

The stock is currently trading at 2.62X forward 12-month sales compared with 1.06X for the Zacks sub-industry, 4.26X for the Zacks sector and 4.2X for the S&P 500 index.

In the past five years, the stock has traded as high as 6.51X and as low as 1.21X, with a five-year median of 2.63X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$19 price target reflects 2.72X forward 12-month sales.

The table below shows summary valuation data for PSTG

Valuation Multiples - PSTG					
		Stock	Sub-Industry	Sector	S&P 500
P/S F12M	Current	2.62	1.06	4.26	4.2
	5-Year High	6.51	1.41	4.48	4.3
	5-Year Low	1.21	0.8	2.77	3.17
	5-Year Median	2.63	1.11	3.44	3.67
P/B TTM	Current	5.92	2.95	8.2	6.09
	5-Year High	10.27	3.94	8.32	6.17
	5-Year Low	2.79	1.64	4.09	3.74
	5-Year Median	5.72	2.82	5.6	4.9
EV/Sales TTM	Current	2.44	1.34	5.06	4.23
	5-Year High	7.84	1.71	5.23	4.23
	5-Year Low	0.92	0.55	2.85	2.62
	5-Year Median	2.95	1.33	3.85	3.58

As of 11/16/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 48% (131 out of 254)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
International Business Machines Corporation (IBM)	Neutral	4
NetApp, Inc. (NTAP)	Neutral	3
Nutanix Inc. (NTNX)	Neutral	4
Seagate Technology PLC (STX)	Neutral	3
Teradata Corporation (TDC)	Neutral	3
Western Digital Corporation (WDC)	Neutral	3
Hewlett Packard Enterprise Company (HPE)	Underperform	5
Micron Technology, Inc. (MU)	Underperform	4

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

Industry Comparison Industry: Computer- Storage Devices				Industry Peers		
	PSTG	X Industry	S&P 500	HPE	IBM	NTAP
Zacks Recommendation (Long Term)	Neutral	-	-	Underperform	Neutral	Neutral
Zacks Rank (Short Term)	2	-	-	5	4	3
VGM Score	D	-	-	A	B	C
Market Cap	4.91 B	873.53 M	26.18 B	13.67 B	105.47 B	11.45 B
# of Analysts	10	5	13.5	7	7	10
Dividend Yield	0.00%	0.00%	1.48%	4.52%	5.51%	3.72%
Value Score	F	-	-	A	B	B
Cash/Price	0.27	0.21	0.06	0.65	0.15	0.34
EV/EBITDA	-52.61	9.44	14.59	4.44	8.24	9.07
PEG F1	7.16	4.11	2.77	1.39	3.97	1.27
P/B	5.83	5.83	3.62	0.84	4.94	40.32
P/CF	NA	10.34	13.69	2.80	5.99	11.23
P/E F1	140.92	16.31	22.23	6.95	13.03	15.15
P/S TTM	2.91	1.40	2.88	0.51	1.41	2.09
Earnings Yield	0.71%	5.46%	4.32%	14.39%	7.67%	6.59%
Debt/Equity	0.57	0.29	0.70	0.85	2.58	9.26
Cash Flow (\$/share)	-0.17	0.08	6.92	3.79	19.75	4.59
Growth Score	B	-	-	B	B	C
Historical EPS Growth (3-5 Years)	NA%	-7.79%	9.77%	-3.44%	-3.38%	26.58%
Projected EPS Growth (F1/F0)	-55.17%	-16.63%	0.37%	16.03%	-29.08%	-15.93%
Current Cash Flow Growth	-37.62%	-28.62%	5.34%	-2.58%	2.09%	-17.99%
Historical Cash Flow Growth (3-5 Years)	11.70%	1.84%	8.33%	-3.09%	-3.76%	1.04%
Current Ratio	3.08	1.83	1.38	0.99	1.05	1.62
Debt/Capital	36.49%	42.59%	41.97%	45.87%	72.10%	90.25%
Net Margin	-11.25%	-2.16%	10.40%	0.00%	10.53%	14.47%
Return on Equity	-13.46%	7.73%	15.07%	11.51%	48.69%	240.01%
Sales/Assets	0.74	0.89	0.50	0.50	0.49	0.71
Projected Sales Growth (F1/F0)	0.14%	-0.34%	0.23%	1.33%	-4.33%	-0.34%
Momentum Score	C	-	-	B	C	D
Daily Price Change	2.00%	1.00%	1.84%	4.83%	1.29%	3.51%
1-Week Price Change	1.93%	2.43%	4.29%	10.34%	2.46%	6.00%
4-Week Price Change	-0.49%	6.66%	7.73%	13.69%	-5.70%	7.46%
12-Week Price Change	9.70%	10.16%	10.59%	10.50%	-5.82%	21.94%
52-Week Price Change	-10.55%	-8.47%	6.85%	-38.48%	-11.88%	-18.76%
20-Day Average Volume (Shares)	2,932,030	251,378	2,197,472	12,293,653	7,055,217	1,929,898
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.60%	0.00%	1.77%	0.00%	-17.90%	1.18%
EPS F1 Estimate 12-Week Change	-17.73%	0.00%	3.73%	4.17%	-17.90%	0.66%
EPS Q1 Estimate Monthly Change	2.63%	-0.17%	0.63%	0.00%	-51.20%	1.65%

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	F
Growth Score	B
Momentum Score	C
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

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.

Additional Disclosure

This material represents an assessment of the market and economic environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. Forward-looking statements are subject to certain risks and uncertainties. Any statements that refer to expectations, projections or characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

Returns quoted represent past performance which is no guarantee of future results. Investment returns and principal value will fluctuate so that when shares are redeemed, they may be worth more or less than their original cost. Current performance may be higher or lower than the performance shown.

Investing involves risk; principal loss is possible. There is no guarantee that companies that can issue dividends will declare, continue to pay or increase dividends.

Glossary of Terms and Definitions

52-Week High-Low: The range of the highest and lowest prices at which a stock has traded during the past year. This range is determined based on the stock's daily closing price which may differ from the intra-day high or low. Many investors use it as a technical indicator to determine a stock's current value and future price movement. The idea here is that if price breaks out from the 52-week range, in either direction, the momentum may continue in the same direction.

20-Day Average Volume (Shares): The average number of shares of a company traded in a day over the last 20 days. It is a direct indication of a security's overall liquidity. The higher the average daily trading volume, the easier it is to enter or exit the stock at a desired price with more buyers and sellers being available.

Daily Price Change: This is the percentage difference between a trading day's closing price and the prior trading day's closing price. This item is updated at 9 p.m. EST each day.

1-Week Price Change: This is the percentage change in a stock's closing price over the last 5 trading days. This change reflects the collective buying and selling sentiment over the 1-week period.

A strong weekly price increase for the stock, especially when accompanied by increased volume, is an indication of it gaining momentum.

4-Week Price Change: This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a medium-term price change metric and an indication of the stock gaining momentum.

12-Week Price Change: This is the percentage change of a stock's closing price over the last 60 trading days or past 12 weeks. Similar to 4-week price change, this is a medium-term price change metric. It shows whether a stock has been enjoying strong investor demand, or if it has been in consolidation, or distress over this period.

52-Week Price Change: This is the percentage change in a stock's closing price over the last 260 trading days or past 52 weeks. This long-term price change metric is a good reference point for investors. Some investors seek stocks with the best percentage price change over the last 52 weeks, expecting the momentum to continue.

Market Cap: The number of outstanding common shares of a company times its latest price per share. This figure represents a company's size, which indicates various characteristics, including price stability and risk, in which investors could be interested.

Year-To-Date Price Change: Change in a stock's daily closing price in the period of time beginning the first day of the current calendar year through to the previous trading day.

of Analysts: Number of EPS estimates used in calculating the current-quarter consensus. These estimates come from the brokerage analysts tracking this stock. However, the number of such analysts tracking this stock may not match the number of estimates, as all brokerage analysts may not come up with an estimate or provide it to us.

Beta: A measure of risk commonly used to compare the volatility of a stock to the overall market. The S&P 500 Index is the base for calculating beta and carries a value of 1. A stock with beta below 1 is less risky than the market as a whole. And a stock with beta above 1 is riskier.

Dividend: The portion of earnings a company is expected to distribute to its common shareholders in the next 12 months for each share they own. Dividends are usually paid quarterly. Dividend payments reflect positively on a company and help maintain investors' trust. Investors typically find dividend-paying stocks appealing because the dividend adds to any market price appreciation to result in higher return on investment (ROI). Moreover, a steady or increasing dividend payment provides investors a cushion in a down market.

Dividend Yield: The ratio of a company's annual dividend to its share price. The annual dividend used in the ratio is calculated based on the most recent dividend paid by the company. Dividend yield is an estimate of the dividend-only return from a stock in the next 12 months. Since dividend itself doesn't change frequently, dividend yield usually changes with a stock's price movement. As a result, often an unusually high dividend yield is a result of weak stock price.

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

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

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 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.