

Seagate Technology Plc (STX)

\$53.62 (As of 11/06/20)

Price Target (6-12 Months): **\$56.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/25/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:C

Value: B

Growth: C

Momentum: F

Summary

Seagate's fiscal first quarter 2021 earnings beat estimates, but revenues missed the same and deteriorated on a year-over-year basis. Weakness in enterprise market offset recovery in video and image application market and sale of consumer drives. Legacy segment is likely to bear the brunt of sluggish IT spending across small and medium enterprises. Also, increases in costs due to COVID-19 is a headwind at least in the near term. Nevertheless, management does not expect much demand disruption from the COVID-19 crisis going forward and expects increases in uptake of its mass capacity storage solutions in the cloud and edge computing verticals. The company is also gaining from solid demand for 16 terabyte (TB) products and is poised to gain from ramp up of 18 TB drives. Shares of Seagate have outperformed the industry on a year-to-date basis.

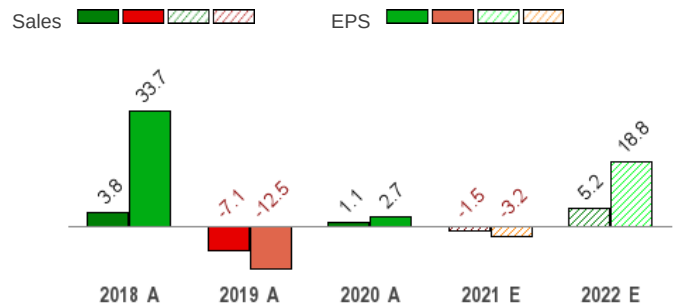
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$64.17 - \$39.02
20-Day Average Volume (Shares)	3,126,035
Market Cap	\$13.6 B
Year-To-Date Price Change	-11.4%
Beta	1.12
Dividend / Dividend Yield	\$2.68 / 4.9%
Industry	Computer- Storage Devices
Zacks Industry Rank	Bottom 17% (208 out of 250)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	6.9%
Last Sales Surprise	-0.6%
EPS F1 Estimate 4-Week Change	1.4%
Expected Report Date	02/02/2021
Earnings ESP	0.0%
P/E TTM	10.9
P/E F1	11.2
PEG F1	9.3
P/S TTM	1.3

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	2,761 E	2,775 E	2,689 E	2,723 E	10,892 E
2021	2,314 A	2,551 E	2,666 E	2,810 E	10,356 E
2020	2,578 A	2,696 A	2,718 A	2,517 A	10,509 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$1.45 E	\$1.51 E	\$1.41 E	\$1.40 E	\$5.69 E
2021	\$0.93 A	\$1.10 E	\$1.31 E	\$1.53 E	\$4.79 E
2020	\$1.03 A	\$1.35 A	\$1.38 A	\$1.20 A	\$4.95 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 11/06/2020. The reports text is as of 11/06/2020.

Overview

Headquartered at Dublin, Ireland, Seagate is the second-largest manufacturer of hard disk drives (HDDs) in the U.S. HDDs are used as the primary medium for storing electronic information in systems ranging from desktop computers and consumer electronics to data centers delivering information over corporate networks and the Internet.

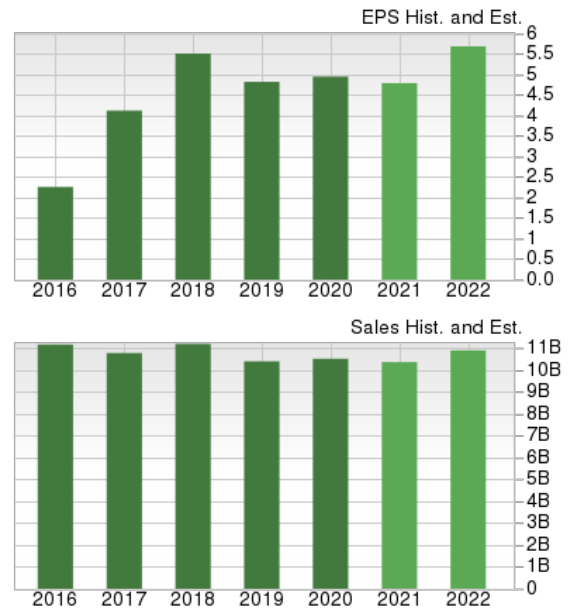
Seagate also develops other electronic data storage products such as SSD (solid state drive) and solid state hybrid drives (SSHD). The company has an industry-leading vertically-integrated operation with internal control over the majority of its key component suppliers.

The company's HDD products are designed for mission critical and nearline applications in enterprise servers and storage systems; edge compute/clientcompute applications. SSD products mainly comprise serial attached SCSI ("SAS") and Non-Volatile Memory Express ("NVMe") SSDs. Cloud systems and solutions portfolio incorporates modular original equipment manufacturer ("OEM") storage systems and scale-out storage servers.

Seagate reported revenues of \$10.5 billion in fiscal 2020. The company offers its products under two heads — mass capacity storage and Legacy (which includes consumer electronics, desktop and laptop solutions). The company enhanced its position in SSDs with the acquisition of Samsung's HDD operations and the French drive maker, LaCie. In fiscal 2020, the company shipped 442 exabytes of HDD storage capacity.

Seagate primarily sells to OEMs but supplements this with sales through distributors and retailers. Major OEM customers include Dell Inc., HP Inc, IBM and Oracle. Revenues from the OEMs accounted for 74% of fourth quarter fiscal 2020 revenues, Distributors brought in 14% and the remaining 12% came from Retailers.

The disk drive market is highly competitive and the company mainly competes with manufacturers of hard drives used in the enterprise, edge compute/client compute and edge non-compute/client non-compute applications and with other companies in the data storage industry that provide SSDs and NVMe add-in technology. Micron Technology, Western Digital Samsung Electronics and SK hynix are few of the major competitors of Seagate.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ Prominent storage players, like Seagate have been expanding into the SSD storage market. SSDs are faster and more energy efficient than traditional hard drives. These also occupy less space and are thus more suitable for mobile computing devices. The emergence of thinner laptops and tablets over the past few years has created an ideal market for SSDs, which are therefore entering the higher end of the market. SSDs are also being used in servers due to lower latency, which in turn facilitates faster response to real-time applications. E-Commerce and financial enterprises need quicker response time and thus data centers serving these clients are opting for SSDs. The secular growth of digital data, modest growth in the TAM and higher demand for storage will drive growth for storage in general, and especially for SSDs. The SSD segment's growth potential is a major positive for Seagate. Per Global market Insights report, SSD market is expected to witness a CAGR of 15% between 2020 and 2026.
- ▲ Seagate has been active on the acquisition front. The acquisitions made over the past several years which include Lyve Minds, Dot Hill Systems, Conner Peripherals, Mirra, ActionFront Data Recovery Labs, Maxtor, MetaLINCS and Xyratex have not only helped the company in expanding product portfolio but have also strengthened its small-to-medium sized business solutions. The acquisitions of Accelerated Solutions Division (ASD) and Flash Components Division (FCD) from Avago Technologies in 2014 not only boosted Seagate's enterprise-class PCIe flash offerings but also enhanced the SSD controller capabilities. Seagate is poised to gain from the acquisition as PCIe-based SSDs are in demand from enterprises dealing with online transaction processing and data warehousing. Moreover, in 2015, the company acquired Dot Hill Systems to boost its enterprise side business further. The company's ability to generate substantial operating cash flows allows it to pursue frequent acquisitions. These takeovers are expected to provide the company with a competitive edge.
- ▲ Seagate is focusing more on the enterprise side, which is the key growth area in the information technology sector. Anticipating a potential acceleration in cloud deployments (due to exponential growth in data storage in the cloud), Seagate is investing heavily to deliver high-capacity storage devices that would support expansion of cloud infrastructure and cloud applications. The company in 2015 acquired Dot Hill Systems Corp. which is engaged in designing, manufacturing and marketing of a wide range of software and hardware storage systems, including hybrid storage arrays, for clients ranging from SMBs to enterprise. We believe that the acquisition of Dot Hill is in line with the company's strategy to focus more on the enterprise side, where it could gain higher-margin business. Seagate also believes that higher demand for cloud storage will lead to improved pricing for enterprise-class drives, mainly due to supply constraints. The company expects cloud-based solutions to drive revenue growth in the near term. Seagate's expectations stems from the fact that IDC expects 49% of the 175 ZB data produced in 2025 to be stored in the cloud.
- ▲ PCs continue to be the biggest users of HDDs, and Seagate still derives the bulk of its revenues from these devices. Per Gartner's preliminary data, PC shipments in third-quarter 2020 improved 3.6% year over year to 71.4 million units. Going by the IDC report, shipments were up 14.6% on a year-over-year basis to 81.3 million in the quarter. Moreover, an improving trend in PC shipments, driven by work-from-home and online learning wave, is likely to positively impact PC-makers that eventually bode well for Seagate's growth prospects.
- ▲ Seagate generates solid cash flow, which allows management the opportunity to invest in product innovations, acquisitions and business development. At the same time, the company has historically returned significant cash through a combination of share repurchases and dividend to reward shareholders with risk-adjusted returns. In fiscal first quarter, Seagate reported cash flow from operations of \$297 million and free cash flow of \$186 million. In fiscal first quarter, Seagate returned \$68 million to shareholders through share repurchases and another \$167 million as dividend payouts. Recently, the company also announced 3% dividend hike and addition of \$3 billion to the existing share repurchases authorization. These investor-friendly initiatives not only boost earnings but also instill investors' confidence and loyalty. The company's ability to generate solid free cash flow is expected to help it sustain current dividend payout (0.56) level, at least in the near term.

Seagate is focusing on the enterprise side, where it could acquire higher-margin business. Synergies from acquisitions and product innovations are the other growth catalysts.

Reasons To Sell:

- ▼ The merger between Western Digital and SanDisk has made it more challenging for Seagate to capture market share in the newer storage technology – SSD. The merger will lead to economies of scale, lower costs, greater market reach and acquisitions of new technologies, among other synergies, for the two major storage solution providers. The companies will also be able to offer competitive solutions in cloud-based computing, which has overtaken digital storage solution space over the past couple of years. Therefore, it will be difficult for Seagate to remain competitive in the storage business. The disk drive market is highly competitive and has experienced drastic pricing pressure due to supply/demand volatility. In the near future, hard disk companies might be exposed to pressures as customers, such as tablet PC makers choose flash cards for storage purposes over the customary hard disks. The situation may compel companies to slash hard disk prices, in turn hurting margins.
- ▼ Seagate derives a significant proportion of its revenues from outside the United States, subjecting the company to exchange rate volatility. Unfavorable movement in exchange rates of foreign currencies like euro and pound sterling, related to the U.S. dollar can adversely impact results and undermine its growth potential to some extent. Further, the coronavirus outbreak is likely to exert pressure on Legacy market revenues.
- ▼ In addition, high indebtedness adds to the risk of investing in the company. As of Oct 2, 2020, Seagate's net debt amounted to \$2.474 billion. Further, total debt to total capital of 69.4% is higher than the industry's figure of 54.7%. Although the company generates significant cash flow, the high debt level can not only jeopardize its ability to sustain dividend payout and buyback shares but also pursue accretive acquisitions.

Sluggish macroeconomic conditions, a flattish price environment, and competition from Western Digital and SanDisk remain near-term headwinds.

Last Earnings Report

Seagate's Q1 Earnings Surpass Estimates, Falter Y/Y

Seagate reported first-quarter fiscal 2021 non-GAAP earnings of 93 cents per share, which beat the Zacks Consensus Estimate by 6.9%. However, the figure declined 9.7% from the year-ago quarter's figure.

Non-GAAP revenues of \$2.314 billion lagged the Zacks Consensus Estimate by 0.6% and deteriorated 10.2% on a year-over-year basis.

Weakness in enterprise market offset recovery seen video and image application market and the sale of consumer drives.

Exabyte Shipments in Detail

During the reported quarter, Seagate shipped 114.4 exabytes of hard disk drive (HDD) storage, with an average capacity of record 4.4 terabytes (TB) per drive. This marked year-over-year improvement of 16.4% in the total HDD exabytes shipments. Sequentially, the figure declined 2.2%. Notably, average capacity improved from 4.4 TB and 2.9 TB reported in the year-ago quarter but decreased from 4.5 TB reported in the previous quarter.

The company shipped 86.6 exabytes for the mass capacity storage market (includes nearline and video and image applications as well as network-attached storage or NAS). This marked a sequential decline of 4.3% in exabytes shipments but represented an improvement of 35.5% on a year-over-year basis. Average capacity per drive decreased sequentially to 8.2 TB from 9.2 TB.

In the nearline market, the company shipped 64.3 exabytes of HDD, up 35.7% year-over-year but down 19.1% sequentially. Average capacity per nearline drive was 11.6 terabytes. This was driven by robust demand for the company's 16 TB capacity products.

The company shipped 27.8 exabytes for the Legacy market (includes mission-critical, notebook, desktop, gaming consoles, digital video recorders or DVR and external consumer devices) with an average capacity of 1.8 TB. This marked a sequential improvement of 5.3% in exabytes shipments. Notably, average capacity increased 12.5% on a year over year basis.

This can be attributed to improved consumer drive sales which partially offset sluggishness in enterprise mission critical and PC market.

Notably, mass capacity and legacy verticals contributed 58% and 34% to total revenues, respectively.

Revenues by Product Group

Total HDD revenues (92.4% of revenues) decreased 10.6% year over year to \$2.137 billion in the reported quarter.

Non-HDD segment revenues (7.6%), which includes enterprise data solutions, cloud systems and SSDs, declined 5.9% year over year to \$177 million.

Margin Details

Non-GAAP gross margin contracted 20 basis points (bps) on a year-over-year basis to 26.5% on lower revenue base. The gross margin takes into account approximately 110 bps impact from underutilization of production capacities, favorable product mix and operational cost-related coronavirus disruption.

Driven by benefits of remote work trend and earlier restructuring endeavors, non-GAAP operating expenses were down 10.9% on a year-over-year basis to \$320 million.

Nevertheless, non-GAAP income from operations were \$294 million, down 10.6% from the year-ago quarter's figure. Consequently, non-GAAP operating margin contracted 10 bps from the prior-year quarter's reported figure to 12.7%.

Balance Sheet and Cash Flow

As of Oct 2, 2020, cash and cash equivalents were \$1.66 billion compared with \$1.72 billion as of Jul 3, 2020.

As of Oct 2, 2020, long-term debt (including current portion) came in at \$4.163 billion compared with \$4.175 billion as of Jul 3, 2020.

Cash flow from operations was \$297 million compared with \$388 million reported in the previous quarter.

Free cash flow for the reported quarter amounted to \$186 million compared with \$274 million in the last reported quarter.

In the fiscal first quarter, the company repurchased 1.5 million shares worth \$68 million and paid out dividends worth \$167 million.

Notably, Seagate's board of directors approved a cash dividend of 67 cents per share, up from prior quarterly payouts of 65 cents per share. The dividend is payable on Jan 6, to shareholders as on Dec 23.

Guidance

Management anticipates second-quarter fiscal 2021 revenues of 2.55 billion (+/- 200 million).

Quarter Ending	09/2020
Report Date	Oct 22, 2020
Sales Surprise	-0.64%
EPS Surprise	6.90%
Quarterly EPS	0.93
Annual EPS (TTM)	4.86

Meanwhile, non-GAAP earnings per share for fiscal second quarter is expected to be \$1.10 cents (+/- 15 cents).

Going ahead, management anticipates not much demand disruption from the COVID-19 crisis and expects increases in uptake of mass capacity storage solutions in the cloud and edge computing verticals.

Seagate also anticipates Lyve Platform and CORTX to fuel demand for its overall mass capacity storage solutions going ahead. Lyve platform is designed to assist organizations to simplify data management and security.

Notably, CORTX is an open-source object storage software that facilitates developers to gain access to mass capacity- data storage architectures. Lyve Rack is a flexible converged storage infrastructure that allows users to implement CORTX and develop mass capacity private storage cloud at lower costs.

Management also added that demand in the cloud data center vertical is likely to improve in the fiscal 2021 and this bodes well for its HDD storage solutions. Moreover, gradual recovery in the video and image applications augurs well for mass capacity storage solutions.

Seagate expects robust demand for the company's 18-terabyte capacity products to be a key catalyst in the days ahead as production to higher volumes improves. Seagate is also optimistic about its 20-terabyte HAMR drives, which will start shipping from December 2020.

However, management also stated that sluggishness in IT spending across small to medium enterprises is likely to take another couple of quarters to recuperate which is likely to dampen demand recovery across the company's systems solution. However, citing an IDC report, management stated that enterprise IT spending is expected to gather pace in calendar 2021.

Also, management added that the operations will continue to bear the brunt of increases in costs due to COVID-19 but will gradually decline.

Recent News

On Sep 25, Seagate introduced open-source object storage CORTX Software, and Lyve Drive Rack reference architecture powered by the software, and a corresponding developer community, CORTX Community.

On Sep 17, Seagate expanded its Exos X18 portfolio with a new 18TB hard drive. The company also unveiled Exos AP (Application platform) 2U12 and a new controller for AP 4U100 systems.

On Sep 1, Seagate extended its IronWolf and IronWolf Pro family-based on Network Attached Storage (NAS) architecture with 18TB storage capacity HDD (Hard Disk Drive). It also added an SSD each to IronWolf and IronWolf Pro portfolios with varying storage capacities.

On Jun 16, Seagate announced the pricing of its offering of an additional \$500-million principal amount notes slated to mature in 2029. The notes carry an annualized interest rate of 4.091%, payable annually.

Valuation

Seagate's shares have declined 9.8% in the year-to-date period and 7.7% over the trailing 12-month period. While stocks in the Zacks sub-industry are down 23.3%, the same in the Zacks Computer & Technology sector are up 31.6% in the year-to-date period. In the past year, the Zacks sub-industry is down 18.8% and the sector is up 38.7%.

The S&P 500 index is up 7.4% in the year-to-date period and 12.3% in the past year.

The stock is currently trading at 10.33X forward 12-month earnings compared with 15.85X for the Zacks sub-industry, 27.4X for the Zacks sector and 22.28X for the S&P 500 index.

Over the past five years, the stock has traded as high as 15.18X and as low as 6X, with a five-year median of 10.03X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$56 price target reflects 10.97X forward 12-month earnings.

The table below shows summary valuation data for STX

Valuation Multiples - STX					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	10.33	15.85	27.4	22.28
	5-Year High	15.18	18.49	27.99	23.47
	5-Year Low	6	9.94	16.95	15.27
	5-Year Median	10.03	12.42	19.94	17.7
P/S F12M	Current	1.29	1.01	4.29	4.14
	5-Year High	1.65	1.41	4.48	4.3
	5-Year Low	0.53	0.8	2.77	3.17
	5-Year Median	1.18	1.11	3.44	3.67
EV/EBITDA TTM	Current	8.84	7.41	15.56	14.8
	5-Year High	17.82	13.17	15.78	15.63
	5-Year Low	4.67	2.78	8.25	9.52
	5-Year Median	7.17	5.71	11.9	13.11

As of 11/05/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 17% (208 out of 250)



Top Peers

Company (Ticker)	Rec	Rank
Intel Corporation (INTC)	Neutral	3
NetApp, Inc. (NTAP)	Neutral	3
Pure Storage, Inc. (PSTG)	Neutral	3
Qumu Corporation (QUMU)	Neutral	2
Teradata Corporation (TDC)	Neutral	3
Teradyne, Inc. (TER)	Neutral	2
Western Digital Corporation (WDC)	Neutral	3
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		
	STX	X Industry	S&P 500	MU	PSTG	WDC
Zacks Recommendation (Long Term)	Neutral	-	-	Underperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	4	3	3
VGM Score	C	-	-	A	C	B
Market Cap	13.55 B	849.57 M	24.11 B	60.76 B	4.66 B	11.91 B
# of Analysts	8	2	13	9	10	8
Dividend Yield	4.93%	0.00%	1.57%	0.00%	0.00%	0.00%
Value Score	B	-	-	B	F	B
Cash/Price	0.14	0.21	0.07	0.15	0.30	0.26
EV/EBITDA	9.94	8.62	13.73	6.66	-49.30	9.12
PEG F1	9.25	3.95	2.75	1.42	6.74	NA
P/B	7.44	5.52	3.35	1.55	5.52	1.24
P/CF	8.52	9.68	13.19	7.06	NA	5.15
P/E F1	11.19	16.23	21.16	19.74	136.69	15.69
P/S TTM	1.32	1.32	2.64	2.83	2.75	0.72
Earnings Yield	9.08%	5.26%	4.53%	5.06%	0.75%	6.36%
Debt/Equity	2.27	0.29	0.70	0.16	0.57	0.95
Cash Flow (\$/share)	6.19	0.08	6.92	7.73	-0.17	7.60
Growth Score	C	-	-	B	A	B
Historical EPS Growth (3-5 Years)	13.60%	-7.60%	10.07%	69.88%	NA	-29.18%
Projected EPS Growth (F1/F0)	-3.21%	-17.33%	0.26%	-2.32%	-56.21%	-17.93%
Current Cash Flow Growth	-17.09%	-28.62%	5.29%	-31.58%	-37.62%	-23.42%
Historical Cash Flow Growth (3-5 Years)	-7.56%	1.84%	8.38%	7.44%	11.70%	-5.08%
Current Ratio	1.51	1.57	1.38	2.71	3.08	2.03
Debt/Capital	69.44%	42.59%	41.97%	14.05%	36.49%	48.69%
Net Margin	10.02%	-2.16%	10.44%	12.54%	-11.25%	-0.20%
Return on Equity	65.10%	7.73%	14.96%	7.73%	-13.46%	7.73%
Sales/Assets	1.15	0.89	0.50	0.42	0.74	0.65
Projected Sales Growth (F1/F0)	-1.46%	-0.15%	0.00%	4.03%	0.24%	-5.99%
Momentum Score	F	-	-	B	B	F
Daily Price Change	4.52%	1.58%	1.91%	5.04%	0.23%	4.37%
1-Week Price Change	-5.75%	-7.33%	-5.63%	-4.75%	-11.05%	-9.56%
4-Week Price Change	2.77%	1.07%	0.43%	9.38%	-2.25%	1.16%
12-Week Price Change	17.48%	8.55%	3.34%	18.29%	4.89%	9.54%
52-Week Price Change	-9.24%	-9.24%	1.98%	12.77%	-8.10%	-26.47%
20-Day Average Volume (Shares)	3,126,035	201,072	1,955,785	14,888,346	3,450,872	6,377,665
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	1.42%	0.00%	1.27%	1.66%	0.00%	-4.44%
EPS F1 Estimate 12-Week Change	0.76%	-0.23%	3.13%	-34.56%	-18.44%	-4.44%
EPS Q1 Estimate Monthly Change	-0.34%	0.00%	0.51%	0.42%	0.00%	0.00%

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	B
Growth Score	C
Momentum Score	F
VGM Score	C

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

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 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.