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Jun 16, 2021

Marvell Technology (MRVL)

$53.59 (As of 06/15/21)

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

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 05/07/19) Prior Recommendation: Underperform	**Neutral**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**3-Hold**
	Zacks Style Scores:	VGM:D
	Value: D | Growth: C | Momentum: F	

Summary

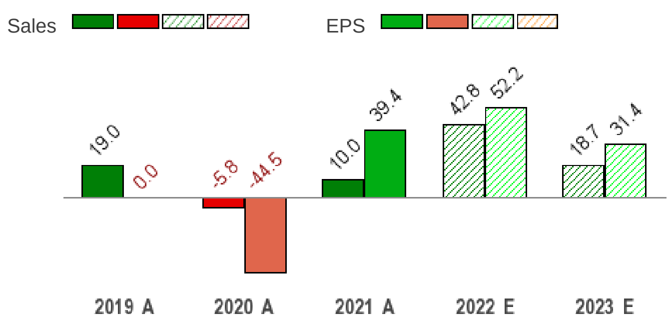
Marvell is benefiting from solid demand for its storage and networking chips from the 5G infrastructure and data-center end markets. Strong supply-chain executions are helping it to address the strong demand from cloud datacenters for its Smart NICs and security adapters. Moreover, the wireless infrastructure business is showing signs of improvements. Also, recent acquisitions of Avera and Aquantia are boosting the top line. Further, the storage business is steadily recovering from coronavirus impacts. The stock has outperformed industry over the past year. However, Marvell has warned that the industry-wide supply constraints and a pause in 5G deployment in China would adversely impact its near-term results. Also, the U.S. government's export restriction on certain Chinese customers is likely to continue to be an overhang on the top line.

Price, Consensus & Surprise

Data Overview

52-Week High-Low	**$55.70 - $32.53**
20-Day Average Volume (Shares)	**8,359,653**
Market Cap	**$36.2 B**
Year-To-Date Price Change	**12.7%**
Beta	**1.10**
Dividend / Dividend Yield	**$0.24 / 0.4%**
Industry	**Technology Services**
Zacks Industry Rank	**Bottom 12% (222 out of 251)**
Last EPS Surprise	**7.4%**
Last Sales Surprise	**3.6%**
EPS F1 Estimate 4-Week Change	**-7.3%**
Expected Report Date	**08/26/2021**
Earnings ESP	**0.0%**
P/E TTM	**51.5**
P/E F1	**38.3**
PEG F1	**1.8**
P/S TTM	**11.7**

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2023	1,174 E	1,230 E	1,305 E	1,327 E	5,036 E
2022	832 A	1,065 E	1,139 E	1,194 E	4,241 E
2021	694 A	727 A	750 A	798 A	2,969 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2023	$0.40 E	$0.44 E	$0.49 E	$0.51 E	$1.84 E
2022	$0.29 A	$0.31 E	$0.37 E	$0.42 E	$1.40 E
2021	$0.18 A	$0.21 A	$0.25 A	$0.29 A	$0.92 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 06/15/2021. The report's text and the analyst-provided price target are as of 06/16/2021.

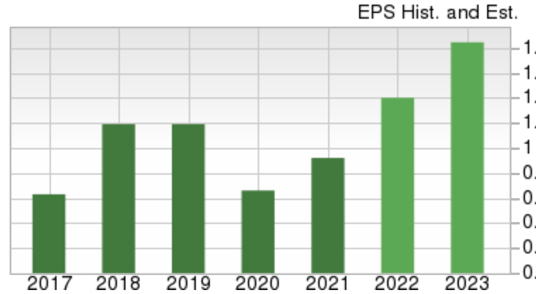
Overview

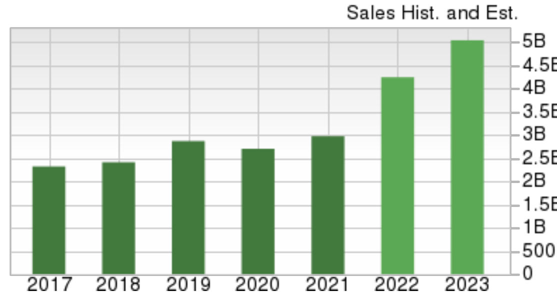
California-based Marvell Technology is a fabless designer, developer and marketer of analog, mixed-signal and digital signal processing integrated circuits. The company operates in Bermuda, China, Germany, Japan, Korea, Taiwan, the United Kingdom, and the United States.

The acquisition of Cavium in July 2018 helped Marvell enhance its product portfolio and access to newer markets. Before the Cavium acquisition, Marvell was mainly known as the leading suppliers of chips for hard disk drives (HDD) used in PCs. Cavium was specialized in offering software compatible processors that enable functionality in data center applications and network connectivity for server and switches.

Therefore, the acquisition helped Marvell expanding its capabilities in the networking market and capture significant market share in the fast-growing data-center space. The strategy also helped Marvell in countering declining chips demand in HDDs due to a weaker PC market. Additionally, the move might put Marvell in a stronger competitive position in the coming years.

Marvell specializes in highly integrated System-on-a-Chip (SoC) and System-in-a-Package (SiP) devices based primarily on ARM designs and sells to both enterprise and consumer customers. It has a significant number of patents in design, software and reference platforms to its credit.





The company's product line includes application processors, controllers, switches, communications and networking processors and technologies, as well as other SoCs for printers and smart home products. These serve two broad end markets — storage and networking.

Marvell has three reportable segments — Storage, Networking, and Others. In fiscal 2021, revenues from storage made up 39% of total revenues and networking, 57%. The remaining 4% of revenues came from Others (Printing Solutions Application Processors, Communication Processors, and others).

End Customers such as Western Digital, Toshiba and Seagate each accounted for less than 10%, of Marvell's consolidated fiscal 2021 revenues. On the other hand, Wintech remained the company's largest distributor accounting for 13% of fiscal 2021 total revenues.

Source: Zacks Investment Research

Reasons To Buy:

> We believe solid demand for Marvell’s 4G LTE products and increasing 5G adoptions across countries could be a growth driver.

- ▲ Marvell is a promising player in the solid state drive (SSD) controllers market. The storage market is seeing a steady increase in demand, given fast-growing data volume, especially the exponential growth in unstructured data.

- ▲ Being a fabless company, it does not have to own or operate foundries for the production of silicon. Instead, it works with independent merchant foundries and chip assemblers for the manufacturing of products. Marvell’s customers are original equipment manufacturers (“OEM’s”) and original design manufacturers, both of which design and manufacture end market devices. This benefits the company with superior manufacturing capability, scalability, as well as flexibility to develop complex SoC and SiP devices that offer superior technology and services at competitive prices. It also frees up resources for research and development (R&D) activity that would otherwise have been locked up in capital assets. This approach permits the company to focus more on the designing, developing and marketing side, which reduces operational and financial risk.

- ▲ The recently concluded acquisition of Inphi Corporation has opened up new avenues of growth for Marvell. Marvell is a leader in infrastructure semiconductor products, while Inphi makes high-speed data movement systems. Therefore, the transaction will broaden Marvell's leadership in data centers and extend its 5G network infrastructure. Inphi's growing presence with cloud customers will also open up additional opportunities for Marvell's DPU and ASIC products. The deal will likely generate annual run-rate synergies of $125 million to be realized within 18 months after the transaction‘s conclusion. It will also be accretive to Marvell's non-GAAP earnings per share by the end of the first year after the deal’s closure.

- ▲ Marvell has initiated restructuring activities to boost operational efficiency. It is concentrating on high-growth markets like IoT. In its recent report, Fortune Business Insights predicts the global IoT market will grow to about $1.46 trillion by 2027 from $250.7 billion in 2019, reflecting a CAGR of 24.9% through the period. Marvell’s efforts to capitalize on the emerging opportunities are encouraging. We believe that these initiatives will provide the company with adequate growth opportunities in the long run.

- ▲ Marvell expects strong growth in 5G-related revenues in the second half of fiscal 2021, driven by continued deployment in Korea and the beginning of higher 5G adoption in Japan and other countries. This makes us optimistic about the company’s prospects.

- ▲ Marvell’s strong operating and free cash flows have helped it return cash through regular quarterly dividend payment and share repurchases. In fiscal 2021, the company generated $817.3 million of operating cash flow. During the fiscal it distributed $160.6 million in dividend payments. Share repurchases and dividend payments are good way of returning cash to investors while boosting the company’s earnings. The company’s ability to generate solid free cash flow is expected to help it sustain current share repurchases and dividend payout level, at least in the near-term.

Reasons To Sell:

> Global business disruptions due to the rapidly-spreading coronavirus and economic weaknesses across the European and Asian regions are major headwinds.

- We believe global business disruptions due to the rapidly-spreading coronavirus could hurt Marvell's financials in the near run. It is believed the semiconductor industry has remained resilient of the coronavirus impact so far due to substantial chip inventory available in the supply chain. However, if the coronavirus stays for a longer period, it will affect the supply chain as well as demand. The coronavirus could impact the production of electronic manufacturing companies, thereby affecting demand for semiconductor chips and equipment.
- In the High Definition (HD) storage drive market, Broadcom is Marvell's main competitor as these two are the primary SoC (system on a chip) suppliers. Also, NXP Semiconductors, QUALCOMM and Texas Instruments offer various components to the market, making us increasingly cautious about growth prospect of Marvell Technology.
- Marvell has a highly leveraged balance sheet with low cash balance. The company ended the first quarter of fiscal 2022 with cash and equivalents of $522.5 million. On the other hand, Marvell's long-term debt was $4.67 billion as of Apr 30, 2021.
- A substantial portion of the company's sales is derived from outside the U.S. During fiscal 2021, 2020, 2019 and 2018 approximately 89%, 90%, 85% and 95% respectively, of total revenue was garnered in currencies other than the U.S. dollar. This exposes the company to exchange rate fluctuations and counterparty default risk. Thus, an economic condition, which impacts foreign currency exchange rates, does result in transaction exposure, which leads to profit fluctuation.
- The oversupply in the NAND market which is leading to the loss of value of the SSD market, is a concern for the company. This trend is expected to continue for sometime now, which might be an overhang on its storage business. Impact of the export restrictions and accounting for the customer factory transition is expected to be an overhang on storage revenues.

Last Earnings Report

Marvell Tops Q1 Earnings & Revenue Estimates, Guides Solid

Quarter Ending	04/2021
Report Date	Jun 07, 2021
Sales Surprise	3.64%
EPS Surprise	7.41%
Quarterly EPS	0.29
Annual EPS (TTM)	1.04

Marvell Technology Group delivered first-quarter fiscal 2022 non-GAAP earnings of 29 cents, beating the Zacks Consensus Estimate of 27 cents. Moreover, the reported figure surged 61.1% from the year-ago quarter tally.

Marvell's revenues of $832.3 million surpassed the consensus mark of $803 million. In addition, the revenue figure increased 20% year over year. 5G and Cloud product ramp-ups, along with revenue contribution from the recently-acquired Inphi Corporation business, were major driving factors.

Quarter Details

In the end markets, storage revenues (36% of total revenues) grew 17% year over year to $302.9 million.

The networking business (60%) revenues jumped 26% year on year to $498.3 million.

Other product revenues (4%) during the fiscal first quarter declined 24% on a year-over-year basis to $31.1 million.

Notably, total core business constituted 96% of total revenues and climbed 23% year over year to $801.2 million.

Marvell's non-GAAP gross margin expanded 150 basis points (bps) to 64.3%. Non-GAAP operating expenses flared up 2.2% year over year to $306.3 million. Non-GAAP operating margin expanded 790 bps year on year to 27.5%.

Balance Sheet and Cash Flow

Marvell exited the reported quarter with cash and cash equivalents of $522.5 million compared with the previous quarter's $748.5 million. The company's long-term debt totaled $4.67 billion.

The firm uses $13.7 million of cash during the fiscal first quarter for operational activities. Marvell returned $40.5 million to shareholders through dividend payments during the quarter.

Q2 Guidance

Marvell expects a pause in 5G deployment in China and the ongoing supply constraint to adversely impact its fiscal second-quarter performance. However, accelerated 5G adoptions in the United States and other regions, along with broad growth across multiple products, are likely to more than offset the negative impact of the aforementioned factors.

The company projects fiscal second-quarter revenues of $1.065 billion (up or down up to 3%). The Zacks Consensus Estimate for revenues is pegged at $838.5 million, suggesting growth of 15.3% from the year-ago quarter.

Non-GAAP earnings per share are expected to be approximately 31 cents (+/- 3 cents). The consensus mark of 31 cents indicates a 47.6% year-over-year surge.

Recent News

On Jun 7, 2021, Marvell introduced the industry's first 1.6T Ethernet PHY with 100G PAM4 electrical input/outputs (I/Os) in 5nm.

On Jun 4, 2021, Marvell announced a quarterly dividend of $0.06 per share of common stock payable on July 28, 2021 to shareholders of record as of July 9, 2021.

On May 27, 2021, Marvell announced its new Bravera SC5 controller family, bringing unprecedented performance, best-in-class efficiency, and leading security features to address ever-expanding workloads in the cloud.

On Apr 27, 2021, Marvell announced the availability of its IEEE 802.3ch-based multi-gig automotive Ethernet PHY which will enable the high-speed transfer of data in tomorrow's connected cars.

On Apr 20, 2021, Marvell announced the completion of its acquisition of Inphi Corporation.

On Apr 15, 2021 Marvell announced that its shareholders have voted to approve the previously announced proposed acquisition of Inphi Corporation and also Marvell's proposal to reorganize so that the combined company will be domiciled in the United States.

On Apr 12, Marvell announced that its wholly owned subsidiary, Marvell Technology, Inc. has closed its previously announced offering of $2 billion senior notes offering.

On Mar 1, 2021, Marvell announced that it is set to join the Evenstar program, in which it will work with Facebook Connectivity to deliver a 4G/5G OpenRAN Distributed Unit (DU) design, based on OCTEON Fusion baseband processors and Arm-based OCTEON multi-core digital processing units (DPUs), for Evenstar.

On Feb 25, 2021, Marvell's OCTEON Fusion baseband processor silicon was adopted by Fujitsu to support the new 5G New Radio (NR) base station offerings.

On Feb 18, 2021, Marvell and Toshiba extended their HDD Controller and Preamplifier collaboration to address rising high capacity storage needs of cloud data centers.

Valuation

Marvell's shares have increased 12.8% in the YTD period while they have gained 53.2% over the trailing 12 months. While stocks in the Zacks sub-industry have increased 6.3%, the Zacks Business Services sector gained 1.5% in the YTD period. Over the past year, the Zacks sub-industry and the sector increased 9.8% and 2.1%, respectively.

The S&P 500 Index has increased 13.8% in the YTD period and 38.4% in the past year.

The stock is currently trading at 34.27X forward 12-month earnings, which compares with 48.48X for the Zacks sub-industry, 30.65X for the Zacks sector and 21.83X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 90.66X and as low as 11.46X, with a 5-year median of 32.74X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our $56 price target reflects 35.98X forward 12-months earnings.

The table below shows summary valuation data for MRVL

Valuation Multiples - MRVL

		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	34.27	48.48	30.65	21.83
	5-Year High	90.66	63.51	30.65	23.83
	5-Year Low	11.46	16.49	19.03	15.31
	5-Year Median	32.74	26.89	22.11	18.05
P/S F12M	Current	9.35	4.89	4.91	4.74
	5-Year High	12.01	5.32	4.91	4.74
	5-Year Low	1.88	3.44	2.81	3.21
	5-Year Median	4.46	4.61	3.53	3.72
EV/Sales TTM	Current	11.63	5.30	5.65	4.88
	5-Year High	12.71	6.30	5.79	4.88
	5-Year Low	1.23	2.12	3.08	2.65
	5-Year Median	4.52	2.90	4.00	3.64

As of 06/15/2021 *Source: Zacks Investment Research*

Industry Analysis **Zacks Industry Rank:** Bottom 12% (222 out of 251)

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
DSP Group, Inc. **(DSPG)**	Neutral	3
Harsco Corporation **(HSC)**	Neutral	2
Maxim Integrated Products, Inc. **(MXIM)**	Neutral	2
MaxLinear, Inc **(MXL)**	Neutral	2
Nitto Denko Corp. **(NDEKY)**	Neutral	3
NeoPhotonics Corporation **(NPTN)**	Neutral	4
NXP Semiconductors N.V. **(NXPI)**	Neutral	2
ON Semiconductor Corporation **(ON)**	Neutral	2

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

Industry Comparison Industry: Technology Services

				Industry Peers		
	MRVL	**X Industry**	**S&P 500**	**DSPG**	**NDEKY**	**NPTN**
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	4
VGM Score	D	-	-	C	A	B
Market Cap	36.21 B	429.29 M	29.91 B	392.23 M	11.46 B	555.39 M
# of Analysts	13	2	12	3	2	7
Dividend Yield	0.45%	0.00%	1.29%	0.00%	0.93%	0.00%
Value Score	D	-	-	D	A	B
Cash/Price	0.02	0.09	0.05	0.19	0.23	0.20
EV/EBITDA	87.65	-4.43	17.36	-177.57	NA	15.30
PEG F1	1.81	2.54	2.12	4.05	NA	NA
P/B	4.27	5.94	4.18	1.95	1.85	3.27
P/CF	33.75	24.39	17.58	38.61	13.52	14.54
P/E F1	38.73	33.90	21.51	60.71	14.86	NA
P/S TTM	11.65	4.81	3.48	3.30	1.59	1.66
Earnings Yield	2.61%	-0.26%	4.56%	1.67%	6.74%	-3.23%
Debt/Equity	0.12	0.00	0.66	0.00	NA	0.17
Cash Flow ($/share)	1.59	-0.04	6.83	0.42	2.83	0.74
Growth Score	C	-	-	B	A	C
Historical EPS Growth (3-5 Years)	3.21%	3.75%	9.44%	8.72%	NA	NA
Projected EPS Growth (F1/F0)	52.26%	22.19%	21.49%	40.35%	15.47%	-214.29%
Current Cash Flow Growth	33.62%	-9.88%	0.86%	-3.98%	-12.37%	70.68%
Historical Cash Flow Growth (3-5 Years)	48.24%	10.02%	7.28%	12.39%	-4.60%	0.27%
Current Ratio	1.50	1.94	1.39	3.73	3.43	2.91
Debt/Capital	10.53%	0.75%	41.51%	1.21%	NA	14.62%
Net Margin	-8.13%	-11.86%	11.95%	-4.77%	9.24%	-6.38%
Return on Equity	5.25%	-14.36%	16.36%	4.56%	10.54%	-6.65%
Sales/Assets	0.29	0.56	0.51	0.56	0.85	1.02
Projected Sales Growth (F1/F0)	42.84%	6.49%	9.41%	18.45%	4.61%	-22.96%
Momentum Score	F	-	-	C	D	C
Daily Price Change	-0.39%	-0.98%	-0.20%	-0.18%	0.41%	-1.10%
1-Week Price Change	6.98%	0.45%	0.46%	1.38%	-3.88%	2.35%
4-Week Price Change	26.24%	4.78%	2.88%	8.29%	-2.01%	15.72%
12-Week Price Change	16.12%	-6.00%	8.59%	13.85%	-11.09%	-11.38%
52-Week Price Change	54.26%	43.82%	35.90%	-3.69%	36.11%	18.12%
20-Day Average Volume (Shares)	8,359,653	287,540	1,749,696	98,417	10,521	494,109
EPS F1 Estimate 1-Week Change	-0.70%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	-7.31%	0.00%	0.03%	0.00%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	-6.16%	-2.64%	3.36%	-28.57%	1.98%	-23.15%
EPS Q1 Estimate Monthly Change	-13.74%	0.00%	0.00%	0.00%	NA	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

Value Score	D
Growth Score	C
Momentum Score	F
VGM Score	D

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.

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

Disclosures

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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.

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 forwardlooking 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 mediumterm price change metric and an indication of the stock gaining momentum.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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