Microchip Technology (MCHP)

$138.51 (As of 12/03/20)

Price Target (6-12 Months): **$145.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 08/06/20) Prior Recommendation: Outperform	**Neutral**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**3-Hold**
	Zacks Style Scores:	VGM:B
	Value: C | Growth: C | Momentum: A	

Summary

Microchip is well-positioned to benefit from dominance of its 8, 16 and 32-bit microcontrollers. Strategic acquisitions have expanded the product portfolio, which augurs well for the longer haul. The company is also gaining from recovery in demand across industrial and automotive end-markets, on reopening of economies and easing shelter-in-place guidelines. Further, solid uptick in medical end-market on hospital equipment demand, was a tailwind. Moreover, the company provided encouraging guidance for fiscal third-quarter. Shares have outperformed the industry in the year-to-date period. Nevertheless, normalizing demand trends across computing and data center end-markets, impacted performance. Also, significant debt burden, increasing expenses on product development along with susceptibility to forex headwinds remain major concerns.

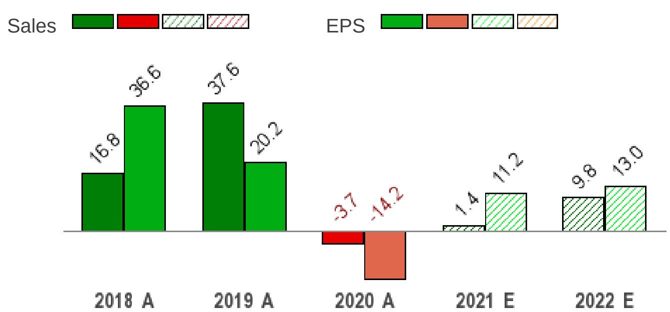
Price, Consensus & Surprise

Source: Zacks Investment Research

Data Overview

52-Week High-Low	**$140.52 - $53.15**
20-Day Average Volume (Shares)	**1,922,986**
Market Cap	**$36.1 B**
Year-To-Date Price Change	**32.3%**
Beta	**1.70**
Dividend / Dividend Yield	**$1.47 / 1.1%**
Industry	**Semiconductor - Analog and Mixed**
Zacks Industry Rank	**Top 14% (36 out of 254)**
Last EPS Surprise	**9.9%**
Last Sales Surprise	**4.1%**
EPS F1 Estimate 4-Week Change	**5.5%**
Expected Report Date	**02/02/2021**
Earnings ESP	**0.0%**
P/E TTM	**23.5**
P/E F1	**22.2**
PEG F1	**1.7**
P/S TTM	**6.9**

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2022	1,451 E	1,499 E	1,467 E	1,482 E	5,872 E
2021	1,310 A	1,310 A	1,344 E	1,384 E	5,347 E
2020	1,323 A	1,338 A	1,287 A	1,326 A	5,274 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	$1.75 E	$1.85 E	$1.78 E	$1.82 E	$7.06 E
2021	$1.56 A	$1.56 A	$1.57 E	$1.64 E	$6.25 E
2020	$1.41 A	$1.43 A	$1.32 A	$1.46 A	$5.62 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 12/03/2020. The reports text is as of 12/04/2020.

Overview

Chandler, AZ-based, Microchip Technology Inc. develops and manufacturers microcontrollers, memory and analog and interface products for embedded control systems, which are small, low-power computers designed to perform specific tasks.

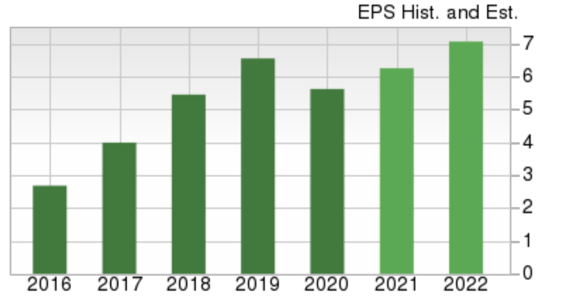
Microchip reported total revenues of $5.27 billion in fiscal 2020.

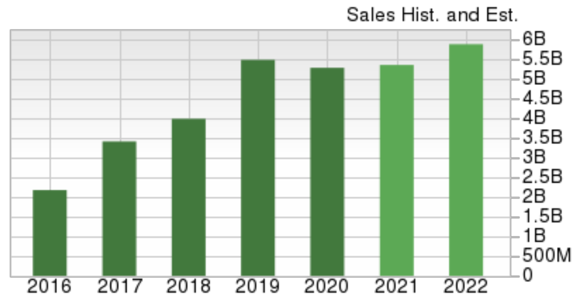
The company has four major product lines:

Microcontrollers (53.4% of fiscal 2020 revenues): This product portfolio comprises 8-bit, 16-bit and 32-bit PIC microcontrollers and 16-bit dsPIC digital signal controllers. Microchip's expanding product portfolio driven by new microcontrollers' roll outs aids it in expanding customer base and sustain its leading position in the market.

Analog (28.7%): These products consist of several families with approximately 800 power management, linear, mixed-signal, thermal management, RF Linear drivers, safety and security, and interface products. The line of mixed-signal products primarily includes data converters that convert data from analog to digital or vice versa.

Licensing, memory and other, or LMO (10.8%): Technology licensing revenue comprises a combination of license fees and royalties related to SuperFlash technology, and fees for engineering services. Microchip licenses its SuperFlash technology to foundries, integrated device manufacturers and design partners across the world.





FPGA (7.1%): The product line was primarily acquired as part of Microsemi acquisition.

In fiscal 2020, Asia, Europe and Americas contributed 52.1%, 22% and 25.9%, respectively to net sales.

Source: Zacks Investment Research

Reasons To Buy:

Microchip's growth is expected to ride on strong demand for 16-bit and 32-bit microcontrollers and analog products, robust product pipeline and excellent semiconductor industry growth prospects.

- Microchip is one of the fastest-growing providers of 8-bit, 16-bit and 32-bit microcontrollers in the world. The microcontroller business of the company continued to outperform the industry and enabled it to gain significant market share. Microchip expects to continue this momentum and strengthen its position as the best-performing microcontroller franchise in the industry. The company is increasingly expanding its touch business beyond handsets and tablets in areas, such as automotive industrial applications. The Analog business has also become one of the largest analog franchises in the market. In order to further capitalize on this burgeoning business potential, Microchip is developing and introducing a wide range of innovative and proprietary new products. All these initiatives augur well for the long-term growth prospects of the company.

- The Semiconductor Industry serves as a driver, enabler and indicator of technological progress. The Internet of Things (IoT) is creating newer avenues and is largely believed to be the next semiconductor growth opportunity with the potential for billions of connected devices. The company continues to develop and introduce a wide range of innovative and proprietary new linear, mixed signal, power, interface, and timing products to fuel the future growth of the analog business. These enable the company to maintain sustainable revenue growth and expand margins.

- High quality standards, solid performance, reliability features, ease of use, pricing and diversity of products make Microchip one of the better-positioned companies in the semiconductor universe. With a diligent focus on right-sizing the various components of inventory holding, Microchip's investment strategy takes a holistic view of the rapidly evolving market and deploys a dynamic capital allocation approach. All these offer a lucrative investment proposition for investors seeking to own blue-chip stocks that promise a healthy return on investments.

- The company has been active on the acquisition front of late. Buyouts have aided growth by expanding its product portfolio and adding competence. We believe acquisitions of Microsemi (2018), Atmel (2016), among others, will enable Microchip to fortify its competitive position in the microprocessor market.

- Improving demand across data center, office equipment and communication infrastructure, driven by requirement for cloud computing solution amid coronavirus crisis induced work-from-home wave, bodes well. The company is also anticipated to witness strength in medical end market, driven by growth in demand for hospital equipment like ventilators, oxygen monitors, respirators, ultrasound machines and other COVID-19 related items.

Reasons To Sell:

- We are concerned about lead times (the period of time between the initiation of any process of production and the completion of that process), which continue to increase due to manufacturing constraints. Microchip is reducing wafer starts in the fabs and putting fab personnel on a rotating time-off schedule in order to reduce costs and maintain staff to ramp up production as and when required. This process is expected to impact gross margins.

Increasing lead time and significant exposure to Asian markets subjecting Microchip to exchange rate volatility are the primary concerns weighing on margin expansion and limiting growth prospects.

- Microchip derives a significant proportion of its revenues from outside America, subjecting the company to exchange rate volatility. By geographical regions, bulk of the revenues in fiscal 2020 came in from Asia (52.1% of total revenues), followed by Europe (22%) and Americas (25.9%). Unfavorable movement in exchange rates continue to adversely impact the top line of the company and undermine its growth potential to some extent. Moreover, coronavirus crisis-induced broad-based macroeconomic weakness across automotive and industrial end-markets, remain a concern.

- Microchip has a highly-leveraged balance sheet. As of Sep 30, 2020, the company had a net debt of $8.81 billion. Notably, total debt to total capital of 60% is much higher than the industry's figure of 46.2%, indicating a higher liability in repaying the debt. Further, times interest earned is 1.5X, compared with the industry's figure of 3.7X. Owing to significant debt levels, the company has to constantly generate adequate operating cash flow to service its debt. The high-debt level can not only jeopardize its ability to sustain dividend payout (0.28) and buyback shares but also pursue accretive acquisitions.

- Moreover, the company is trading at premium in terms of Price/Book (P/B).Microchip currently has a trailing 12-month P/B ratio of 6.42X. This level compares unfavorably with what the industry witnessed in the last year. Additionally, the ratio is higher than the average level of 4.62X and is near the high end of the valuation range in this period. Consequently, the valuation looks slightly stretched from P/B perspective.

Last Earnings Report

Microchip Q2 Earnings Improve Y/Y

Quarter Ending	09/2020
Report Date	Nov 05, 2020
Sales Surprise	4.06%
EPS Surprise	9.86%
Quarterly EPS	1.56
Annual EPS (TTM)	5.90

Microchip Technology Incorporated reported second-quarter fiscal 2021 non-GAAP earnings of $1.56 per share, improved 9.1% on a year-over-year basis.

Net sales declined 2.1% from the year-ago quarter and remained flat on a quarter-over-quarter basis at $1.31 billion. However, the top line surpassed the Zacks Consensus Estimate by 4.1%.

Normalizing demand trends across computing and data center end-markets, which experienced uptick in June quarter, impacted performance. However, recovery in demand across automotive, industrial and medical end-markets was a positive.

Quarter in Detail

In terms of product line, microcontroller business (53.7% of net sales) declined 1.8% sequentially to $703.1 million. Nevertheless, management noted that the decline was lower than anticipated.

Analog net sales of $361.7 million (27.6%) declined 2.3% sequentially.

FPGA revenues (8.3%) were $108.4 million, up 24.8% on a quarter-over-quarter basis.

Licensing, memory and other, or LMO product line (10.4%) reported revenues of $136.3 million, flat sequentially.

Geographically, revenues from Americas, Europe and Asia contributed 26.4%, 18.1% and 55.5% to net sales, respectively.

Margin Details

Non-GAAP gross margin remained flat on a year-over-year basis at 62.2%.

Non-GAAP research & development expenses, as a percentage of net sales, contracted 140 basis points (bps) year over year to 13.4%. Non-GAAP selling, general & administrative (SG&A) expenses, as a percentage of net sales, shrunk 130 bps year over year at 9.5%. Non-GAAP operating expenses, as a percentage of net sales, contracted 250 bps year over year to 23%.

Consequently, non-GAAP operating margin expanded 250 bps on a year-over-year basis to 39.2%.

Balance Sheet & Cash Flow

As of Sep 30, 2020, cash and short-term investments totaled $370.3 million, compared with $380.2 million as of Jun 30, 2020.

As of Sep 30, 2020, total debt (long-term plus current portion) amounted to $9.18 billion compared with $9.33 billion as of Jun 30, 2020. Notably, the company paid down $331.1 million of debt during the quarter.

Cash flow from operating activities was $455.8 million compared with $501.8 million reported in the prior quarter.

Changes at the Helm

Microchip also announced CEO transition. Steve Sanghi, having led the company for 30 years, is set to assume an executive chair role, effective Mar 1, 2021. Notably, Ganesh Moorthy, currently the company's president, will take the responsibility as both president and CEO effective the same day. Moorthy will also join the board of directors effective Jan 4, 2021.

Guidance

Microchip forecast third-quarter fiscal 2021 net sales of $1.310-$1.375 billion. For the fiscal third quarter, non-GAAP earnings are anticipated to be $1.51-$1.63 per share.

Non-GAAP gross margin is anticipated to be 62.4-62.8%. Non-GAAP operating margin is anticipated in the range of 38.7% to 39.7%.

Recent News

On Nov 18, Microchip launched PIC18 microcontroller (MCU) devices to enable data transmission and reception via Controller Area Network Flexible Data-Rate (CAN FD) bus.

On Nov 11, Microchip introduced its CryptoAutomotive security IC, the TrustAnchor100 (TA100) to augment support for automotive network security solutions.

On Nov 10, Microchip rolled out XpressConnect device featuring low-latency PCI Express 5.0 and Compute Express Link (CXLTM) 1.1/2.0 retimers to cater to the increased requirement of high-power computing by data centers.

On Nov 5, Microchip unveiled CryptoAutomotive security IC, the TrustAnchor100 (TA100) device, with an aim to aid OEMs and module suppliers to simplify automotive network security, generate cost savings and reduce time to market.

On Nov 5, Microchip's board of directors announced a cash dividend of 36.85 cents, up from prior quarterly dividend payment of 36.8 cents per share. The dividend is payable Dec 4, 2020, to shareholders as on Nov 21, 2020.

On Oct 26, Microchip added a new solution — the LX7720 radiation-hardened mixed signal motor controller — to its Space System Manager (SSM) product portfolio. The offering is capable of lowering weight and board area of the device without affecting the reliability of the same.

On Oct 21, Microchip announced the buyout of LegUp Computing Inc, which will enable software engineers to utilize Microchip's algorithm-accelerating capacity of PolarFire System on Chip (SoC) and PolarFire FPGA platforms.

On Oct 20, Microchip integrated the PIC18-Q41 and AVR DB MCU portfolios with additional advanced analog peripherals as well as multi-voltage operation with inter-peripheral connections. This will help lower signal acquisition time along with providing improved system integration.

On Oct 13, Microchip rolled out Wi-Fi microcontroller (MCU) module called as WFI32E01PC and is "pre-provisioned" for cloud operations.

On Oct 6, Microchip expanded its motor control portfolio with digital signal controllers (DSCs) and microcontrollers (MCUs) that are based on advanced development hardware, a torque-maximizing algorithm, design tools, and a refrigerator compressor reference design.

Valuation

Microchip Technology shares are up 32.3% in the year-to-date period and 43.3% in the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 30.4% and 35.7% in the year-to-date period, respectively. In the past year, the Zacks sub-industry and sector are up 40.6% and 41.3%, respectively.

The S&P 500 index is up 14.3% in the year-to-date period and 18.1% in the past year.

The stock is currently trading at 20.36X forward 12-month earnings compared with 27.39X for the Zacks sub-industry, 27.76X for the Zacks sector and 22.7X for the S&P 500 index.

In the past five years, the stock has traded as high as 21.95X and as low as 9.09X, with a five-year median of 17.19X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our $145 price target reflects 21.31X forward 12-month earnings.

The table below shows summary valuation data for MCHP

Valuation Multiples - MCHP

		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	20.36	27.39	27.76	22.7
	5-Year High	21.95	27.39	28.01	23.47
	5-Year Low	9.09	13.42	16.95	15.27
	5-Year Median	17.19	18.38	19.95	17.75
P/S F12M	Current	6.32	5.7	4.43	4.28
	5-Year High	6.32	5.7	4.49	4.3
	5-Year Low	2.37	2.81	2.77	3.17
	5-Year Median	4.05	3.82	3.46	3.67
EV/Sales TTM	Current	8.18	7.04	5.25	4.29
	5-Year High	8.18	7.04	5.25	4.29
	5-Year Low	3.74	3.46	2.83	2.62
	5-Year Median	5.65	4.5	3.87	3.58

As of 12/03/2020 *Source: Zacks Investment Research*

Industry Analysis **Zacks Industry Rank:** Top 14% (36 out of 254)

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Cirrus Logic, Inc. **(CRUS)**	Outperform	1
IPG Photonics Corporation **(IPGP)**	Outperform	1
MACOM Technology Solutions Holdings, Inc. **(MTSI)**	Outperform	1
Maxim Integrated Products, Inc. **(MXIM)**	Outperform	1
Analog Devices, Inc. **(ADI)**	Neutral	3
Monolithic Power Systems, Inc. **(MPWR)**	Neutral	3
Texas Instruments Incorporated **(TXN)**	Neutral	2
Xilinx, Inc. **(XLNX)**	Neutral	3

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

Industry Comparison Industry: Semiconductor - Analog And Mixed

Industry Peers

	MCHP	X Industry	S&P 500	ADI	CRUS	MXIM
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Outperform
Zacks Rank (Short Term)	3	-	-	3	1	1
VGM Score	B	-	-	C	D	F
Market Cap	36.06 B	9.90 B	26.33 B	51.64 B	4.62 B	22.46 B
# of Analysts	10	8	13	12	6	9
Dividend Yield	1.06%	0.00%	1.49%	1.77%	0.00%	2.29%
Value Score	C	-	-	D	D	F
Cash/Price	0.01	0.07	0.07	0.02	0.06	0.07
EV/EBITDA	21.91	32.01	14.58	24.06	17.30	27.76
PEG F1	1.66	2.62	2.76	2.02	2.55	2.98
P/B	6.42	6.14	3.53	4.30	3.51	13.12
P/CF	12.38	24.19	13.76	19.57	20.51	30.93
P/E F1	22.40	33.42	21.83	24.77	18.20	29.80
P/S TTM	6.89	6.73	2.81	9.22	3.71	9.86
Earnings Yield	4.51%	3.03%	4.41%	4.04%	5.50%	3.36%
Debt/Equity	1.50	0.71	0.70	0.43	0.00	0.58
Cash Flow ($/share)	11.19	2.82	6.94	7.14	3.88	2.72
Growth Score	C	-	-	C	D	D
Historical EPS Growth (3-5 Years)	19.20%	10.02%	9.72%	12.63%	1.49%	9.32%
Projected EPS Growth (F1/F0)	11.23%	16.27%	0.83%	14.92%	15.23%	24.73%
Current Cash Flow Growth	6.11%	-5.80%	5.23%	-3.50%	10.42%	-8.10%
Historical Cash Flow Growth (3-5 Years)	31.92%	18.60%	8.33%	16.62%	3.55%	-0.43%
Current Ratio	1.07	2.01	1.38	1.84	3.98	5.28
Debt/Capital	60.05%	41.18%	42.00%	30.01%	0.00%	36.76%
Net Margin	11.62%	6.09%	10.40%	21.79%	12.57%	30.03%
Return on Equity	25.02%	15.42%	14.99%	15.51%	14.92%	39.85%
Sales/Assets	0.30	0.51	0.50	0.26	0.76	0.63
Projected Sales Growth (F1/F0)	1.37%	7.81%	0.35%	10.36%	5.94%	13.31%
Momentum Score	A	-	-	B	B	D
Daily Price Change	0.82%	0.47%	0.20%	-0.65%	-1.34%	-0.25%
1-Week Price Change	1.55%	3.22%	2.18%	2.13%	0.03%	2.41%
4-Week Price Change	17.00%	7.66%	6.65%	7.17%	10.78%	7.86%
12-Week Price Change	37.68%	31.14%	14.39%	22.30%	38.87%	26.62%
52-Week Price Change	43.22%	45.64%	6.09%	23.20%	10.50%	48.06%
20-Day Average Volume (Shares)	1,922,986	814,811	2,053,456	2,750,228	466,269	2,061,695
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	5.47%	0.00%	0.00%	0.09%	5.78%	0.00%
EPS F1 Estimate 12-Week Change	5.47%	14.71%	3.77%	-0.04%	43.92%	13.53%
EPS Q1 Estimate Monthly Change	9.23%	0.00%	0.00%	1.55%	-0.29%	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	C
Growth Score	C
Momentum Score	A
VGM Score	B

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

Disclosures

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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.