Monolithic Power (MPWR)

$274.88 (As of 09/28/20)

Price Target (6-12 Months): **$292.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 03/05/20) Prior Recommendation: Outperform	**Neutral**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**3-Hold**
	Zacks Style Scores:	VGM:B
	Value: F | Growth: A | Momentum: A	

Summary

Monolithic is benefitting from coronavirus crisis-triggered robust demand for cloud servers, storage and solid uptake of home applications, gaming consoles, as well as IOT devices. This bodes well for the company's top line. Moreover, Monolithic is well poised to gain from rapid deployment of 5G on the back of robust portfolio of legacy routers, wireless applications and 5G networking infrastructure related products. This favors growth prospects in the Communications end-market. Further, increasing adoption of point of sales systems, security applications and smart meters, is a key catalyst. Notably, shares of the company have outperformed the industry on a year-to-date basis. However, impact of coronavirus crisis-induced shutdowns of major automotive OEMs is a major headwind. Also, stiff competition in the analog market is a concern.

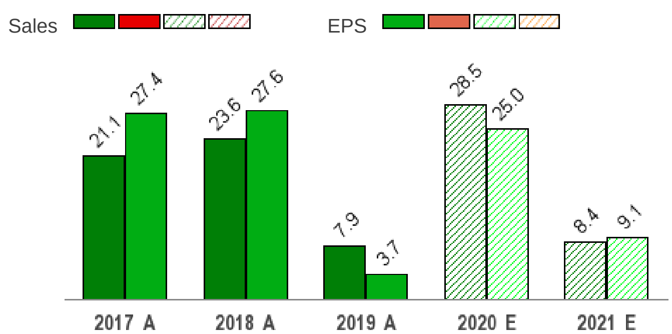
Price, Consensus & Surprise

Source: Zacks Investment Research

Data Overview

52-Week High-Low	$284.50 - $130.12
20-Day Average Volume (Shares)	341,343
Market Cap	$12.3 B
Year-To-Date Price Change	54.4%
Beta	1.17
Dividend / Dividend Yield	$2.00 / 0.7%
Industry	Semiconductor - Analog and Mixed
Zacks Industry Rank	Bottom 28% (181 out of 250)
Last EPS Surprise	8.0%
Last Sales Surprise	9.4%
EPS F1 Estimate 4-Week Change	15.3%
Expected Report Date	10/27/2020
Earnings ESP	0.0%
P/E TTM	66.2
P/E F1	56.7
PEG F1	2.3
P/S TTM	18.0

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2021	195 E	211 E	236 E	233 E	875 E
2020	166 A	186 A	258 E	197 E	807 E
2019	141 A	151 A	169 A	167 A	628 A

EPS Estimates

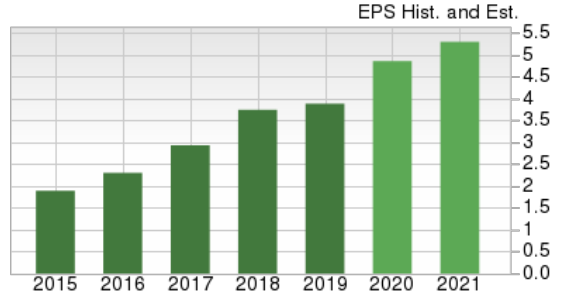
	Q1	Q2	Q3	Q4	Annual*
2021	$1.09 E	$1.23 E	$1.46 E	$1.43 E	$5.29 E
2020	$0.95 A	$1.08 A	$1.68 E	$1.13 E	$4.85 E
2019	$0.84 A	$0.92 A	$1.08 A	$1.04 A	$3.88 A

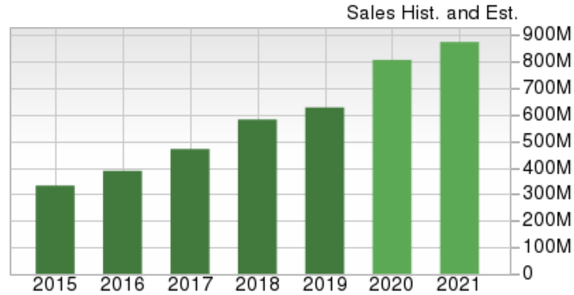
*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 09/28/2020. The reports text is as of 09/29/2020.

Overview

Monolithic Power Systems, based in San Jose, CA, designs, develops and markets high-performance power solutions. The company focuses on the market for high-performance analog and mixed-signal integrated circuits (ICs).





Monolithic's products are widely utilized in industrial applications, telecommunication infrastructures, cloud computing, automotive and consumer applications.

Being a fabless company, Monolithic works with third-party contractors and chip assemblers for the manufacturing, assembling and testing of wafers and ICs. This approach permits the company to focus more on the designing and development of process technology at a lower-fixed cost.

Notably, unlike other fabless semiconductor companies, Monolithic installs its own proprietary process technologies in third-party contractors' equipment and facilities.

Monolithic reported total revenue of $627.9 million in 2019. The company's key product families are direct current to direct current (DC to DC) products and Lighting Control products.

DC to DC ICs are used to convert and control voltages within a broad range of electronic systems, such as portable electronic devices, wireless LAN access points, computers and monitors, automobiles and medical equipment. The product line accounted for 93.9% of total revenue in 2019.

Lighting control ICs are used in backlighting and general illumination products. The product line accounted for 6.1% of total revenue in 2019.

End-market wise, 30.1% of total revenue came from Computing and storage for the year ended Dec 31, 2019.

Precisely, Consumer, Industrial, Automotive and Communications end-markets contributed 26.2%, 15.8%, 14.4% and 13.5%, respectively to 2019 revenues.

Monolithic's primary competitors are Analog Devices, Infineon Technologies, Renesas Electronics (post Intersil acquisition), Analog Devices (post Linear Technology acquisition), Maxim Integrated Products, NXP Semiconductors (pending acquisition by Qualcomm), ON Semiconductor, Power Integrations, ROHM Semiconductor, Semtech and Texas Instruments.

Source: Zacks Investment Research

Reasons To Buy:

> Investments in high-growth fields like automotive, industrial, server and communications are anticipated to drive growth in the long haul.

- Automotive is one of the foremost industries that is benefiting from the emergence of Internet of Things (IoT) and artificial intelligence (AI). The increasing demand for analog ICs and sensors bodes well for semiconductor component providers like Monolithic. Management has stated that the company is winning increasing dollar content in the automotive market. Moreover, its deep-rooted partnerships with leading auto suppliers will further boost top line. Further, management expects Automotive business to witness a CAGR of 40-50% between 2013 and 2021. Monolithic has strong growth opportunity due to its robust product portfolio that targets In-Car connectivity and infotainment, advanced driver assistance system (ADAS) and rapid adoption of LED lightings in cars and vehicles.

- Apart from automotive, Monolithic is investing in markets like industrial, server and communications that have strong growth potential over the long term. The ongoing adoption of cloud computing is driving demand for servers, which bodes well for the company's power management solutions. We expect Monolithic to benefit from the ongoing Grantley to Purley platform conversion in the server market. Higher dollar content in new servers based on Purley will drive top-line growth. Management anticipates cloud computing to be a notable growth driver, particularly due to increasing demand for solid state drives (SSDs) and servers.

- Moreover, Monolithic projects e-commerce as the upcoming growth driver. The company is now engaged in developing its e-commerce platform, which will allow customers input their specific needs. The company will leverage AI software to predict performance for the consumer's desired product. Monolithic expects to deliver Amazon-like consumer experience through its e-commerce platform. This will not only expand customer base but also help the company to rapidly penetrate the small and medium (SMB) businesses.

- Being a fabless company, Monolithic works with third-party contractors and chip assemblers for the manufacturing, assembling and testing of wafers and ICs. This approach permits the company to focus more on the designing and development of process technology at a lower-fixed cost. However, unlike other fabless semiconductor companies, Monolithic installs its own proprietary process technologies in third-party contractors' equipment and facilities. Monolithic claims that its proprietary process helps in achieving higher level of integration within its chips. We note that the company has 1,162 patents as of Dec 31, 2019, which possibly helps it to maintain this technological lead.

- Monolithic has a strong balance sheet with ample liquidity position and no debt obligations. As of Jun 30, 2020, cash, cash equivalents and short-term investments were $512.3 million, up from $489.3 million reported as of Mar 31, 2020. The company generated $59.3 million of cash from operating activities in the second quarter of 2020 compared with $51.4 million in the prior quarter. The increasing liquidity and cash flow trend reflect that the company is making investments in the right direction. Moreover, since it carries no long-term debt, the cash is available for pursuing strategic acquisitions, and investment in growth initiatives.

Reasons To Sell:

> Monolithic's business in the highly cyclical semiconductor industry and dependence on China amid macroeconomic uncertainty remain major concerns.

- Monolithic derives a significant proportion of its revenues from Asia. Notably, for year ended Dec 31, 2019, the company generated 89% of total revenues from customers based in Asia. Hence, changes in the relative value of the dollar against Asian currencies may create pricing pressure for the company's products. Moreover, lack of geographic diversity in terms of end-customers is a significant headwind. The company generates majority of revenues from a limited number of customers. Customer concentration lowers the company's ability to hike price, which is a major concern.

- Monolithic is considerably exposed particularly to the demand environment in China (61% of revenues in 2019), which is at present quite sluggish. Further, imposition of tariffs owing to trade war between the United States and China is anticipated to negatively impact growth prospects. The uncertainty over the recent trade war truce has impacted investors' confidence and is likely to remain an overhang on the company's performance. Moreover, negative impact of coronavirus crisis-induced shutdowns of major automotive OEMs remains a major headwind.

- Monolithic operates in a highly competitive market. The company faces significant competition in the analog market (including power management sub-segment), which is highly fragmented. Moreover, most competitors have strong financial resources and broader distribution channel than Monolithic. Being relatively small in size, the company doesn't have significant flexibility to reduce price as compared with its peers, which is a headwind. We expect intensifying competition to keep profitability under pressure at least in the near-term.

- Monolithic's business, in particular and in the semiconductor industry in general, is highly cyclical. It is characterized by constant and swift technological changes, as well as rapid product obsolescence and price erosion, evolving standards, short product life-cycles. Additionally, semiconductor manufacturing is very capital-intensive. The manufacturing capacities that are essential to maintain a competitive cost position require large capital investments. A high percentage of the cost of operating a lab is fixed; therefore, increases or decreases in capacity utilization can have a significant impact on profitability.

- Moreover, the company is trading at premium in terms of Price/Earnings (P/E). Monolithic currently has a trailing 12 month P/E ratio of 104.12X. This level compares unfavorably with what the industry witnessed in the last year. Additionally, the ratio is higher than the average level of 77.2X and is towards the high end of the valuation range in this period. Consequently, the valuation looks slightly stretched from P/E perspective.

Last Earnings Report

Monolithic Power Q2 Earnings & Revenues Beat Estimates

Quarter Ending	06/2020
Report Date	Jul 28, 2020
Sales Surprise	9.44%
EPS Surprise	8.00%
Quarterly EPS	1.08
Annual EPS (TTM)	4.15

Monolithic Power Systems, Inc. reported second-quarter 2020 non-GAAP earnings of $1.08 per share, which beat the Zacks Consensus Estimate by 8%. Notably, the figure improved 17.4% on a year-over-year basis.

Revenues of $186.2 million increased 23.3% from the year-ago quarter's figure and surpassed the Zacks Consensus Estimate by 9.4%. The reported figure was also above the higher end of management's guidance of $167-$173 million.

Strong demand across Computing & Storage and Consumer and Communications end-markets, and a diversified multi-market strategy drove year-over-year growth.

Quarter in Details

Revenues by Product Family

Revenues in the DC to DC segment (94.6% of total revenues) increased 26.1% year over year to $176.1 million. Moreover, Lighting Control (5.4% of total revenues) revenues fell 10.8% to $10.1 million.

Revenues by End Market

Computing & Storage (34.4% of total revenues) revenues rallied 23.3% sequentially to $64.1 million. The market's solid performance was driven by robust sales of cloud servers and storage.

Consumer (25.6%) revenues improved 27.4% from the prior quarter to $47.7 million, reflecting solid uptake of home applications, gaming consoles, and IOT devices.

Industrial (14.3%) revenues increased 5.4% sequentially to $26.6 million due to strong performance of power devices, partially offset by decrease in sales of security applications.

Automotive (9.5%) revenues were $17.8 million, down 23.7% from the prior quarter. Negative impact of coronavirus crisis-induced shutdowns of major automotive OEMs led to decline in business.

Communications (16.2%) revenues increased 8% sequentially to $30.1 million. The end-market benefited from strong uptake of legacy routers, wireless applications and 5G networking infrastructure related products.

Margins in Detail

Non-GAAP gross margin expanded 10 basis points (bps) from the year-ago quarter's level to 55.7%. Management had predicted the figure between 55.3% and 55.9%.

Non-GAAP operating expenses amounted to $50.7 million during the reported quarter, up 25.8% year over year. As a percentage of revenues, the figure expanded 50 bps on a year-over-year basis to 27.2%.

Non-GAAP operating income improved 21.3% year over year to $53 million. Non-GAAP operating margin (as a percentage of revenues) contracted 40 bps from the year-ago quarter's level to 28.5%.

Balance Sheet & Cash Flow

As of Jun 30, 2020, cash, cash equivalents and short-term investments were $512.3 million, up from $489.3 million reported as of Mar 31, 2020.

Monolithic Power generated operating cash flow of $59.3 million compared with $51.4 million in the prior quarter.

Guidance

For third-quarter 2020, Monolithic Power projects revenues between $200 million and $210 million. Management anticipates non-GAAP gross margin between 55.5% and 56.1%.

Recent News

On Jun 11, Monolithic announced dividend of 50 cents per share to stockholders as on Jun 30, 2020. The dividend will be paid on Jul 15.

On Jun 2, Monolithic announced a distribution agreement with Farnell Electronics to provide customers with access to the company's extensive portfolio of high-performance power solutions in industrial applications, telecom infrastructures, automotive, cloud computing and consumer applications.

On Apr 9, Monolithic announced that it has built a low cost emergency ventilator based on an open-source MIT design, to aid medical workers in their fight against the coronavirus pandemic.

Valuation

Monolithic's shares are up 54.4% in the year-to-date period and 76.6% in the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 3.3% and 21.6% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and the sector is up 15.2% and 32.9%, respectively.

The S&P 500 index is up 5.1% in the year-to-date period and 13.1% in the past year.

The stock is currently trading at 53.07X forward 12-month earnings compared with 24.27X for the Zacks sub-industry, 25.97X for the Zacks sector and 21.94X for the S&P 500 index.

In the past five years, the stock has traded as high as 84.55X and as low as 34.57X, with a five-year median of 46.96X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our $292 price target reflects 56.38X forward 12-month earnings.

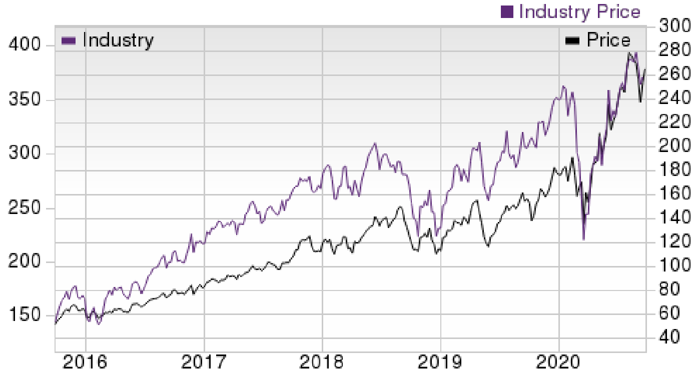
The table below shows summary valuation data for MPWR

Valuation Multiples - MPWR

		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	53.07	24.27	25.97	21.94
	5-Year High	84.55	27.04	27.98	23.46
	5-Year Low	34.57	13.42	16.72	15.26
	5-Year Median	46.96	18.22	19.93	17.63
P/S F12M	Current	14.39	4.87	4.23	4.09
	5-Year High	15.76	5.01	4.49	4.3
	5-Year Low	5.37	2.81	2.7	3.11
	5-Year Median	8.41	3.77	3.43	3.66
EV/Sales TTM	Current	17.21	5.72	4.79	3.82
	5-Year High	17.73	6.04	5.24	4.15
	5-Year Low	5.48	3.25	2.85	2.61
	5-Year Median	9.3	4.46	3.83	3.56

As of 09/28/2020 *Source: Zacks Investment Research*

Industry Analysis **Zacks Industry Rank:** Bottom 28% (181 out of 250)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Silicon Laboratories, Inc. **(SLAB)**	Outperform	2
Inphi Corporation **(IPHI)**	Neutral	3
Microchip Technology Incorporated **(MCHP)**	Neutral	3
MACOM Technology Solutions Holdings, Inc. **(MTSI)**	Neutral	3
MagnaChip Semiconductor Corporation **(MX)**	Neutral	2
Maxim Integrated Products, Inc. **(MXIM)**	Neutral	4
MaxLinear, Inc **(MXL)**	Neutral	3
Semtech Corporation **(SMTC)**	Underperform	5

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

Industry Comparison Industry: Semiconductor - Analog And Mixed

	MPWR	X Industry	S&P 500	MTSI	MX	SMTC
				Industry Peers		
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Underperform
Zacks Rank (Short Term)	3	-	-	3	2	5
VGM Score	B	-	-	B	A	D
Market Cap	12.35 B	7.36 B	23.11 B	2.21 B	484.86 M	3.47 B
# of Analysts	8	9	14	8	1	6
Dividend Yield	0.73%	0.00%	1.66%	0.00%	0.00%	0.00%
Value Score	F	-	-	F	B	F
Cash/Price	0.04	0.09	0.08	0.12	0.43	0.08
EV/EBITDA	94.74	20.49	13.15	-9.41	12.41	35.96
PEG F1	2.29	2.38	2.88	NA	NA	2.55
P/B	14.54	4.92	3.29	8.10	78.31	5.11
P/CF	93.78	20.91	12.83	32.05	9.11	34.67
P/E F1	57.21	32.88	21.32	34.33	55.16	31.82
P/S TTM	17.96	5.50	2.49	4.47	0.65	6.24
Earnings Yield	1.76%	3.05%	4.44%	2.90%	1.81%	3.14%
Debt/Equity	0.00	0.74	0.70	2.50	36.15	0.28
Cash Flow ($/share)	2.93	2.82	6.92	1.03	1.51	1.53
Growth Score	A	-	-	A	A	B
Historical EPS Growth (3-5 Years)	26.53%	11.10%	10.43%	-48.55%	-18.72%	10.72%
Projected EPS Growth (F1/F0)	25.03%	8.16%	-4.22%	432.33%	-47.92%	9.98%
Current Cash Flow Growth	5.71%	-10.25%	5.47%	-30.98%	-15.11%	-28.03%
Historical Cash Flow Growth (3-5 Years)	20.59%	22.53%	8.52%	-8.89%	49.27%	-5.21%
Current Ratio	5.47	2.54	1.35	4.74	1.62	4.45
Debt/Capital	0.00%	42.20%	42.91%	71.40%	97.31%	21.62%
Net Margin	18.60%	3.58%	10.28%	-11.20%	3.65%	8.34%
Return on Equity	15.41%	10.54%	14.73%	2.57%	-251.86%	9.25%
Sales/Assets	0.70	0.50	0.50	0.44	1.25	0.53
Projected Sales Growth (F1/F0)	28.57%	2.54%	-1.38%	7.36%	-39.88%	5.26%
Momentum Score	A	-	-	A	C	D
Daily Price Change	3.66%	3.56%	1.85%	3.41%	2.83%	3.84%
1-Week Price Change	4.43%	-1.49%	-2.32%	-2.14%	2.84%	-1.74%
4-Week Price Change	2.90%	-1.75%	-2.53%	-7.13%	14.92%	-9.31%
12-Week Price Change	13.52%	1.54%	4.17%	-7.36%	33.37%	-1.08%
52-Week Price Change	76.62%	13.36%	0.12%	53.94%	36.00%	9.42%
20-Day Average Volume (Shares)	341,343	816,583	2,098,704	546,311	357,378	579,741
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	-0.12%
EPS F1 Estimate 4-Week Change	15.26%	0.00%	0.00%	10.45%	0.00%	-0.12%
EPS F1 Estimate 12-Week Change	23.14%	20.94%	4.22%	111.30%	18.75%	-10.29%
EPS Q1 Estimate Monthly Change	51.94%	0.00%	0.00%	0.14%	0.00%	1.07%

Source: Zacks Investment Research

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we maintain a balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	F
Growth Score	A
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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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.