Momentum: A



Summary

Motorola is well positioned to boost its mission-critical communications services in the public safety domain by entering into alliances with other players in the ecosystem. An attractive portfolio for a large addressable market is a major tailwind. The successful integration of CommandCentral Aware software with Avigilon Blue — its cloud video security platform — enables public safety agencies to better manage and monitor video feeds and camera networks through the software-as-a-service offering. However, the coronavirus-induced pandemic is likely to erode the overall demand, thereby hampering its long-term growth to some extent. Adverse currency translations pose a headwind for Motorola as it generates significant revenues outside the United States. A debt-laden balance sheet position is another major concern for the company.

Data Overview

52-Week High-Low	\$187.33 - \$120.77
20-Day Average Volume (Shares)	956,337
Market Cap	\$28.3 B
Year-To-Date Price Change	3.5%
Beta	0.74
Dividend / Dividend Yield	\$2.56 / 1.5%
Industry	Wireless Equipment
Zacks Industry Rank	Bottom 26% (186 out of 253)

Last EPS Surprise	15.8%
Last Sales Surprise	2.8%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	11/04/2020
Earnings ESP	0.0%
EPS F1 Estimate 4-Week Change Expected Report Date	0.0% 11/04/2020

P/E TTM	21.2
P/E F1	22.4
PEG F1	2.5
P/S TTM	3.7

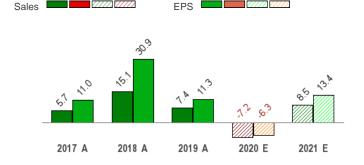
Price, Consensus & Surprise



Value: C

Growth: B

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

*Quarterly figures may not add up to annual.

	Q1	Q2	Q3	Q4	Annual*
2021	1,752 E	1,894 E	2,020 E	2,370 E	7,939 E
2020	1,655 A	1,618 A	1,824 E	2,221 E	7,317 E
2019	1,657 A	1,860 A	1,994 A	2,377 A	7,887 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$1.49 E	\$1.82 E	\$2.21 E	\$3.10 E	\$8.46 E
2020	\$1.49 A	\$1.39 A	\$1.76 E	\$2.80 E	\$7.46 E
2019	\$1.28 A	\$1.69 A	\$2.04 A	\$2.94 A	\$7.96 A

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 10/09/2020. The reports text is as of 10/12/2020.

Overview

Based in Chicago, IL Motorola Solutions, Inc. is a leading communications equipment manufacturer and has strong market positions in bar code scanning, wireless infrastructure gear, and government communications. The company was formed following the split-off from its parent company Motorola, Inc. on Jan 4, 2011. Motorola Solutions generally provides services and solutions to the government segments and public safety programs together with large enterprises and wireless infrastructure service providers. It develops and services both analog and digital two-way radio, voice and data communications products and systems for private networks, wireless broadband systems and end-to-end enterprise mobility solutions to a wide range of enterprise markets.

Motorola reorganized its operating segments during second-quarter 2018. The new segments of the company are Products and Systems Integration, and Services and Software. The change reflects moving Systems Integration business from the erstwhile Services segment into the newly formed Products and Systems Integration segment and moving Software from the former Products segment into the new Services and Software segment.

Products and Systems Integration (59.8% of second-quarter 2020 net sales): The segment comprises of a wide portfolio of infrastructure, devices and accessories along with systems integration. The segment's primary customers are government, public safety and first-responder

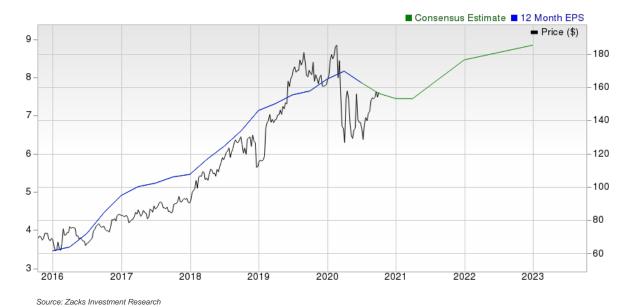
EPS Hist. and Est.

8
7
6
-5
-4
-3
-2
-1
-2015 2016 2017 2018 2019 2020 2021



agencies, municipalities, and commercial and industrial customers who operate private communications networks and manage a mobile workforce.

Services and Software (40.2%): The segment offers a wide range of services and software to government, public safety and commercial communication networks. These include: (i) Software, (ii) Lifecycle Support services, (iii) Managed services, (iv) Smart Public Safety Solutions, and (v) Integrated Digital Enhanced Network (iDEN) services.



Reasons To Buy:

▲ As a leading provider of mission-critical communication products and services worldwide, Motorola has ensured a steady revenue stream from this niche market. The communications equipment maker intends to boost its position in the public safety domain by entering into strategic alliances with other players in the ecosystem. Despite coronavirus-induced adversities, Motorola reported solid second-quarter 2020 results, driven by diligent execution of operational plans. The company witnessed a healthy demand for video security products and services during the quarter and remains well poised to tide over the storm with a diversified portfolio.

Motorola remains poised to benefit from organic growth and acquisition initiatives by entering into strategic alliances with other players in the ecosystem and strengthen its market position.

- Motorola expects to record strong demand across video security and services, land mobile radio products, and related software while benefiting from a solid foundation. Furthermore, its competitive position and attractive portfolio for large addressable markets and healthy cash flow augur well for future growth.
- ▲ The acquisition of WatchGuard, Inc., which manufactures in-car video systems and body-worn cameras along with evidence management software, has added new capabilities to Motorola's video security solutions portfolio. It has further expanded its video security product line, which includes fixed cameras and advanced analytics from Avigilon as well as license plate recognition cameras and software from Vigilant Solutions. Markedly, the company also completed the acquisition of Fresno, CA-based video security solutions provider, Pelco, in an all-cash transaction worth \$110 million on Aug 3, 2020. The deal is likely to be a win-win situation for both the companies, while bolstering operational efficiencies, public safety and geographical footprint with an accretive customer base.
- ▲ The company has introduced the Si200 body-worn camera to facilitate agencies in investigation while providing footage of incidents. The Si200 body-worn camera captures high-definition video and boasts advanced capabilities, helping integration across the public safety workflow. It combines with CommandCentral Vault Motorola's digital evidence management solution that enables investigating agencies to manage content from in-field capture to judicial process under an integrated platform. Motorola has also successfully integrated CommandCentral Aware software with Avigilon Blue its cloud video security platform. The integration enables public safety agencies to better manage and monitor video feeds and camera networks through the latest software-as-a-service offering. Such innovative products are likely to generate a steady revenue stream for the company.

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Reasons To Sell:

▼ The company's debt-laden balance sheet remains a cause of concern. As of Jun 30, 2020, the company had \$1,341 million of cash and cash equivalents with \$5,111 million of long-term debt compared with respective tallies of \$1,672 million and \$5,111 million in the previous quarter. Although Motorola has no near-term debt maturities in 2020 or 2021 and no pension debt obligations until 2023, the stock looks relatively more leveraged than the sub-industry. Motorola currently has a debt-to-capital ratio of 1.16 compared with 0.38 of the sub-industry. A highly leveraged balance sheet can inflate the company's financial obligations and hurt profitability. The times interest earned has decreased over the past few quarters to 5.3 at present relative to 8.7 for the sub-industry. Motorola has a dividend payout rate of 34.1% compared with 57.3% of the sub-industry. The rate has increased sequentially, indicating that the company is sharing more of its earnings with stockholders. It remains to be seen whether Motorola can turn the tables in the coming days amid disruptions caused by the COVID-19 pandemic.

Costs associated with mergers are limiting bottom-line growth and affecting margins, while risks associated with the Brexit referendum are undermining Motorola's growth potential to some extent.

- ▼ Although we remain optimistic on Motorola's growth-by-acquisition strategy, costs associated with the mergers are limiting bottom-line growth. Gross margin has decreased at a CAGR of 5.1% from 2013 to 2019, reflecting higher operating expenses. Higher working capital requirement due to the implementation of new Enterprise Resource Planning (ERP) system is hurting the company's cash from operations. Motorola's cash flow yield has declined from 9.52% at year-end 2014 to 4.46% at year-end 2019, indicating under-utilization of resources and lapses in sound financial management.
- ▼ Headwinds in currency translation could add to the woes as Motorola generates significant revenues outside the United States. The global coronavirus pandemic is likely to dent its overall demand as the world grapples with an adverse economic effect. Management also withdrew the guidance for 2020 as the virus outbreak impacted its professional commercial radio business, and delayed engagement and deployments in certain cases, likely affecting the future revenue trend. All these are likely to undermine its growth potential to some extent.

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Last Earnings Report

Motorola Beats on Q2 Earnings Despite Lower Revenues

Motorola reported relatively healthy second-quarter 2020 results, driven by diligent execution of operational plans. Despite surpassing the respective Zacks Consensus Estimate, revenues and adjusted earnings decreased year over year due to coronavirus-induced adversities. The company remains well poised to tide over the storm with a solid cash flow and balance sheet position.

Quarter Ending	00/2020
Report Date	Aug 06, 2020
Sales Surprise	2.78%
EPS Surprise	15.83%
Quarterly EPS	1.39
Annual EPS (TTM)	7.86

06/2020

Quarter Ending

Net Earnings

On a GAAP basis, net earnings in the reported quarter were \$135 million or 78 cents per share compared with \$207 million or \$1.18 in the year-earlier quarter. The decline was primarily attributable to top-line contraction due to demand-related challenges amid the virus outbreak.

Excluding non-recurring items, non-GAAP earnings in the quarter were \$1.39 per share compared with \$1.69 in the year-ago quarter. The bottom line beat the Zacks Consensus Estimate by 19 cents.

Revenues

Quarterly net sales fell 13% year over year to \$1,618 million due to lower demand in the Americas and the International business, triggered by the coronavirus pandemonium. The top line, however, exceeded the Zacks Consensus Estimate of \$1,574 million.

Organic revenues decreased 15% year over year to \$1,578 million. Acquisitions contributed \$40 million to incremental revenues, while currency headwinds aggregated \$30 million in the quarter. Region-wise, revenues were down 13% in North America to \$1,093 million, driven by lower sales of professional and commercial radio products, partially offset by growth in video security and services. International revenues were down 14% to \$525 million due to a decline in professional and commercial radio products.

Segmental Performance

Net sales from Products and Systems Integration fell 22% year over year to \$968 million, largely due to a significant decline in demand for professional and commercial radio products across all geographical regions. However, the segment witnessed solid demand for video security solutions from utility firms and government sectors. The segment's backlog was down \$228 million to \$2.8 billion, primarily due to unfavorable foreign currency translation and a decline in the international backlog.

Net sales from Services and Software totaled \$650 million compared with \$622 million a year ago, with solid performance across Command Center Software and services. The segment's backlog decreased \$148 million to \$7.7 billion, primarily due to adverse foreign exchange effects, partially offset by multi-year agreements in the Americas.

Other Quarterly Details

GAAP operating earnings decreased to \$218 million from \$349 million in the prior-year quarter, while non-GAAP operating earnings were down 19% to \$359 million. The company ended the quarter with a total backlog of \$10.5 billion, down from \$10.9 billion a year ago. Overall GAAP operating margin was 13.5%, down 530 basis points due to lower revenues. Non-GAAP operating margin was 22.2% compared with 23.9% in the year-ago quarter.

Non-GAAP operating earnings for Products and Systems Integration were down 46% to \$131 million for the corresponding margin of 13.5%. Non-GAAP operating earnings for Services and Software were \$228 million, up 13% year over year, driven by gross margin expansion and higher sales led by strong demand for Command Center Software solutions and continued growth in the services business. This resulted in non-GAAP operating margin of 35.1% for the segment, up from 32.5%.

Cash Flow and Liquidity

Motorola generated \$517 million of cash from operating activities during the first six months of 2020 compared with \$502 million a year ago. Free cash flow in the first half of the year was \$415 million. The company repurchased \$83 million worth of stock during the quarter.

As of Jun 30, 2020, the company had \$1,341 million of cash and cash equivalents with \$5,111 million of long-term debt. Motorola repaid \$300 million of its unsecured revolving credit facility during the quarter. Notably, the company has no near-term debt maturities in 2020 or 2021 and no pension debt obligations until 2023.

Guidance

Despite the lack of clarity regarding the impact of the coronavirus pandemic on the business, the company offered guidance for the third quarter. Third-quarter 2020 non-GAAP earnings are expected in the \$1.72-\$1.78 per share range on a year-over-year revenue decline of 8-9%.

For 2020, non-GAAP earnings are expected in the \$7.40-\$7.52 per share range on a year-over-year revenue decline of 7% as the virus outbreak continues to impact its professional commercial radio business and delay engagement and deployments in certain cases, affecting the future revenue trend.

Recent News

On Oct 6, 2020, Motorola announced that it will revamp Taiwan's High Speed Rail Service with the latest mission-critical voice technology based on the TETRA (Terrestrial Trunked Radio) digital radio standard. Providing more than 130 services on a daily basis, this 350km rail network running from the capital Taipei to the southern city of Kaohsiung is vital for the overall development of Taiwan's economy.

On Oct 6, 2020, Motorola introduced Avigilon eCommerce platform and partner community to enable Avigilon partners to streamline their ordering processes and gain greater visibility into the status of their purchasing transactions. Further, partners will have access to increased visibility into important updates related to pricing changes, discount requests, order fulfillment milestones and technical support cases.

On Oct 2, 2020, Motorola introduced an innovative cloud-based service for mission critical environments — CommandCentral Citizen Input. This solution is part of Motorola's avant-garde CommandCentral software suite, which has been designed to protect first responders and citizens for the enhancement of public safety infrastructure. The move underscores the Chicago, IL-based company's commitment to mitigate operating risks and minimize the growing incidences of cyber-attacks, while streamlining workflows with operational efficiency and safety.

On Sep 30, 2020, Motorola introduced the two-way radio communications platform — WAVE PTX — in Colombia. This one-stop solution is believed to be an ideal communications solution for on-the-go-workforce. The product comes as a boon for new-age organizations that aim to modernize business operations while enabling employees to enjoy the benefits of push-to-talk (PTT) communications with augmented network capabilities.

On Sep 14, 2020, Motorola unveiled CirrusCentral Core, a cloud-based secondary core for ASTRO 25 P25 land mobile radio systems. Dubbed the next-generation of mission-critical radio technology, CirrusCentral Core enables system managers to access their secondary core virtually. The new cloud service is regularly updated with the latest communication software. It also eliminates the need for public safety agencies to maintain a physical backup core-site.

On Aug 31, 2020, Motorola announced the acquisition of Callyo — a leading provider of advanced mobile technology for law enforcement purposes — for an undisclosed amount. Apparently, the state-of-the-art mobile applications from Callyo will help Motorola enhance its missioncritical communications infrastructure, while boosting productivity for seamless operations.

On Aug 3, 2020, Motorola completed the acquisition of Fresno, CA-based video security solutions provider, Pelco, in an all-cash transaction worth \$110 million. The deal is likely to be a win-win situation for both the companies, while bolstering operational efficiencies, public safety and geographical footprint with an accretive customer base.

Valuation

Motorola shares are down 0.4% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 26.5% over the past year, while stocks in the Zacks Computer and Technology sector are up 39.2% in the same time frame.

The S&P 500 Index is up 17.3% in the past year.

The stock is currently trading at 14.09X trailing 12-month EV/EBITDA, which compares to 28.96X for the Zacks sub-industry, 15.08X for the Zacks sector and 15.24X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 34.63X and as low as 6.73X, with a 5-year median of 11.77X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$175 price target reflects 8.64X forward 12-month earnings.

The table below shows summary valuation data for MSI

		Stock	Sub-Industry	Sector	S&P 500
	,	Otock	oub-industry	Occioi	J ai 300
	Current	14.09	28.96	15.08	15.24
EV/EBITDA TTM	5-Year High	34.63	29.46	15.79	15.66
	5-Year Low	6.73	9.84	8.24	9.53
	5-Year Median	11.77	17.27	11.85	13.08
	Current	20.25	32.58	27.05	22.62
P/E F12M	5-Year High	23	32.58	28	23.47
	5-Year Low	14.27	13.61	16.95	15.27
	5-Year Median	17.44	18.8	19.95	17.7
	Current	3.63	3.74	4.23	4.16
P/S F12M	5-Year High	3.86	3.84	4.48	4.3
	5-Year Low	1.82	2.07	2.77	3.18
	5-Year Median	2.47	2.81	3.44	3.67

Past performance is no guarantee of future results. Please see important disclosures and definitions at the end of this report.

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Industry Analysis Zacks Industry Rank: Bottom 26% (186 out of 253) ■ Industry Price

Industry Price

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec Rank
Viasat Inc. (VSAT)	Outperform 1
Comtech Telecommunications Corp. (CMTL)	Neutral 4
Ericsson (ERIC)	Neutral 3
InterDigital, Inc. (IDCC)	Neutral 3
Juniper Networks, Inc. (JNPR)	Neutral 3
Sierra Wireless, Inc. (SWIR)	Neutral 4
Ubiquiti Inc. (UI)	Neutral 4
Zte Corp. (ZTCOY)	Neutral 4

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

	riola di Seli.					
Industry Comparison Industry	y: Wireless Equip	ment		Industry Peers		
	MSI	X Industry	S&P 500	JNPR	VSAT	ZTCO
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Neutra
Zacks Rank (Short Term)	4	-	-	3	1	4
VGM Score	Α	-	-	D	D	В
Market Cap	28.32 B	418.77 M	23.82 B	7.52 B	2.40 B	11.28 E
# of Analysts	6	3	14	8	4	•
Dividend Yield	1.53%	0.00%	1.59%	3.53%	0.00%	0.91%
Value Score	С	-	-	В	D	В
Cash/Price	0.05	0.22	0.07	0.26	0.10	0.50
EV/EBITDA	19.87	9.65	13.54	11.81	10.43	7.88
PEG F1	2.49	1.83	2.94	1.83	NA	N/
P/B	NA	1.66	3.51	1.68	1.15	1.63
P/CF	16.80	12.94	13.47	11.99	6.47	13.90
P/E F1	22.41	19.89	22.09	14.68	NA	22.23
P/S TTM	3.70	1.30	2.67	1.70	1.04	0.8
Earnings Yield	4.47%	4.47%	4.31%	6.80%	-0.42%	4.50%
Debt/Equity	-6.27	0.09	0.70	0.39	0.86	0.39
Cash Flow (\$/share)	9.93	0.49	6.92	1.89	5.50	0.3
Growth Score	В	-	-	D	C	C
Historical EPS Growth (3-5 Years)	21.89%	-5.00%	10.45%	-7.06%	NA	N/
Projected EPS Growth (F1/F0)	-6.30%	4.17%	-3.01%	-10.24%	NA	-37.14%
Current Cash Flow Growth	10.81%	-18.57%	5.47%	-8.77%	36.25%	-169.88%
Historical Cash Flow Growth (3-5 Years)	17.32%	5.53%	8.50%	-15.41%	5.53%	16.90%
Current Ratio	1.17	1.93	1.35	1.88	1.63	1.37
Debt/Capital	NA%	16.36%	42.90%	27.81%	46.38%	27.80%
Net Margin	11.03%	2.76%	10.28%	7.89%	-0.05%	5.66%
Return on Equity	-145.69%	4.86%	14.79%	8.71%	-0.06%	13.30%
Sales/Assets	0.73	0.73	0.51	0.51	0.49	0.63
Projected Sales Growth (F1/F0)	-7.24%	0.10%	-0.62%	-0.98%	2.24%	8.14%
Momentum Score	Α	-	-	F	D	C
Daily Price Change	2.46%	0.00%	0.24%	0.09%	1.34%	-1.21%
1-Week Price Change	1.89%	1.89%	2.13%	-0.33%	4.68%	6.70%
4-Week Price Change	10.94%	5.26%	4.78%	-0.83%	0.88%	2.09%
12-Week Price Change	23.81%	3.99%	7.34%	-2.16%	-6.14%	-19.77%
52-Week Price Change	-1.90%	-1.90%	6.73%	-3.86%	-49.85%	-12.13%
20-Day Average Volume (Shares)	956,337	132,550	2,121,744	3,221,838	583,974	9,742
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	0.00%	0.00%	-0.57%	0.00%	-18.52%
EPS F1 Estimate 12-Week Change	6.31%	0.39%	3.47%	1.99%	-217.65%	-15.39%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	-0.60%	0.00%	N/

Source: Zacks Investment Research

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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.

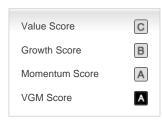
Zacks Rank

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.



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

Disclosures

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

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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.

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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 4week 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 longterm 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 longterm 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.

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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.