

Masimo Corporation(MASI)

\$240.66 (As of 06/21/21)

Price Target (6-12 Months): **\$253.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 09/28/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:D

Value: D

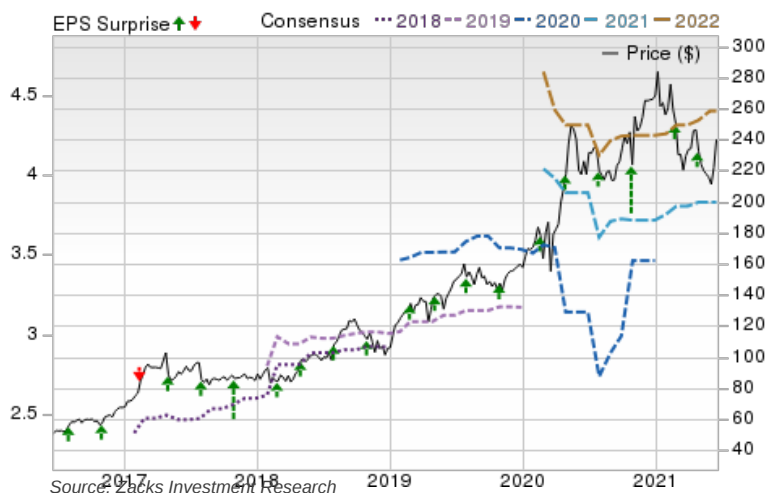
Growth: D

Momentum: D

Summary

Masimo continued to gain from its key Product segment in the first quarter of 2021, which witnessed solid growth. Recent launch of the Masimo SafetyNet, designed to help fight the coronavirus pandemic, continues to buoy optimism. The outbreak boosted demand for the company's products among the direct and OEM customers. A stable liquidity position is encouraging too. Masimo's first quarter results were better-than-expected. On the flip side, Masimo's Royalty and Other segment saw zero contribution during the quarter, which is concerning. The company's non-invasive technology shipments also fell in the period. Contraction of both margins also does not bode well. Further, the company faces fierce competition from the MedTech bigwigs. The stock has underperformed its industry over the past six months.

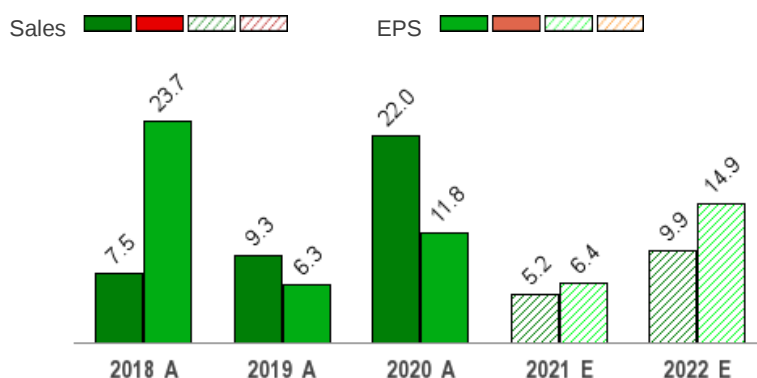
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$284.86 - \$203.81
20-Day Average Volume (Shares)	385,481
Market Cap	\$13.2 B
Year-To-Date Price Change	-10.3%
Beta	0.75
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Medical - Instruments
Zacks Industry Rank	Bottom 17% (208 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	322 E	322 E	328 E	347 E	1,322 E
2021	299 A	298 E	298 E	310 E	1,203 E
2020	270 A	301 A	278 A	295 A	1,144 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$0.99 E	\$1.04 E	\$1.09 E	\$1.21 E	\$4.40 E
2021	\$0.90 A	\$0.91 E	\$0.95 E	\$1.06 E	\$3.83 E
2020	\$0.97 A	\$0.85 A	\$0.80 A	\$0.98 A	\$3.60 A

*Quarterly figures may not add up to annual.

Last EPS Surprise	2.3%
Last Sales Surprise	0.3%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	07/27/2021
Earnings ESP	0.0%
P/E TTM	68.2
P/E F1	62.8
PEG F1	3.9
P/S TTM	11.3

The data in the charts and tables, including the Zacks Consensus EPS and sales estimates, is as of 06/21/2021. The report's text and the

analyst-provided price target are as of 06/22/2021.

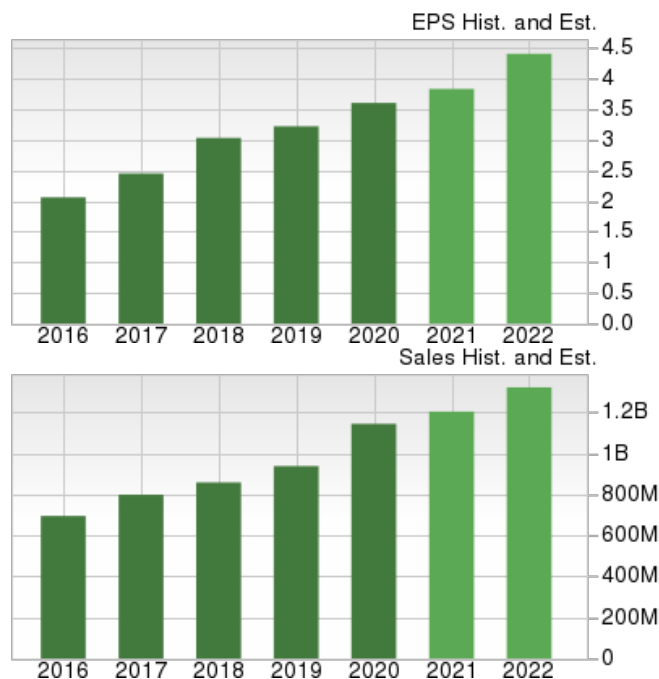
Overview

Irvine, CA-based Masimo Corporation (MASI) develops, manufactures and markets a family of non-invasive monitoring systems. The Company has two segments: Product Revenues, Royalty & Other revenues.

Within Product revenues, the company's flagship— Signal Extraction Technology (SET) Pulse Oximetry – is used to monitor blood oxygen saturation levels and protect against hypoxemia and hyperoxemia. The device also measures pulse rate. Apart from blood monitoring, the company has also ventured into non-invasive blood constituent, brain and breathe monitoring. The company's rainbow Pulse CO-Oximetry measures blood constituents that include total hemoglobin (SpHb), oxygen content (SpOC), carboxyhemoglobin (SpCO), methemoglobin (SpMet) and SET measurements of oxygen saturation (SpO2), pulse rate (PR), perfusion index (PI), and pleth variability index (PVI).

Rainbow Acoustic Monitoring measures respiration rate (RRa) non-invasively and on a continuous basis. SedLine monitors brain functioning of patients under anesthesia or sedation. The company also provides Capnography and Multigas Monitoring original equipment manufacturers (OEM) solutions.

Apart from these, the company also provides circuit boards to OEMs Carefusion, Mindray, Philips and others. OEMs generally use these circuit boards in their own multi-parameter products.



2020 Results at a Glance

Masimo's full-year revenues totaled \$1.14 billion, up 22%.

Product revenues were \$1.14 billion (up 22.1% from 2019), while Royalty and Other revenues had no contribution.



Reasons To Buy:

▲ **Positive Feedbacks:** Masimo has been riding high on a series of regulatory approvals.

In August 2020, the company announced that PVi has obtained FDA approval as a continuous, noninvasive, dynamic indicator of fluid responsiveness in select populations of mechanically-ventilated adult patients. PVi or pleth variability index is an indicator of the dynamic changes in perfusion index that take place during the respiratory cycle. This regulatory clearance is expected to boost the company's SET Pulse Oximetry portfolio. In September, the company received FDA clearance of the Rad-G Pulse Oximeter — a rugged handheld device — offering clinically-proven SET pulse oximetry, respiration rate from the pleth (RRp) and other crucial parameters for spot-checking and continuous monitoring. This will help clinicians evaluate patients quickly and arrive at informed care decisions where pulseoximetry or vital signs checking is required in a compact, portable form factor. This regulatory clearance will boost Masimo's SET pulse oximeter solution line-up.

In March 2021, Masimo announced that the Rad-G with Temperature received the CE marking. The handheld device offers clinically proven SET pulse oximetry, RRp and other key parameters along with clinical-grade, non-contact infrared thermometry. While Rad-G is already approved by the FDA and is available in the United States, Rad-G with Temperature is yet to receive the approval and is currently not available in the country. In April, the company's Radius PCG, a portable real-time capnograph with wireless Bluetooth connectivity, received an FDA 510(k) clearance. Radius PCG connects with the Root Patient Monitoring and Connectivity Platform to provide seamless, tetherless mainstream capnography for patients of all ages.

Additionally, the company is gearing up for the launch of SafetyNet for opioids for use in certain countries across Europe while the FDA approval in the United States is still being awaited.

▲ **Patient-Monitoring in Focus:** Masimo offers mobile as well as standalone units, allowing a patient to be monitored from the ambulance to the emergency room to the general floor, and through to discharge. The company's Root patient monitoring and connectivity platform integrates rainbow and SET technologies. In non-invasive patient monitoring, the company's Patient SafetyNet, Rainbow acoustic monitoring, SedLine brain function monitoring, Capnography and gas monitoring deserve a mention. Masimo's flagship Rad-97 Pulse CO-Oximeter with integrated NomoLine capnography obtained CE mark. This will make the device available in and outside the United States.

In February 2021, the company announced the full commercial release of Masimo SafetyNet-OPEN. It is a web and mobile-based app solution that enables businesses, schools and other organizations to screen, track and manage users as they battle against COVID-19 and other infectious diseases, such as seasonal flu.

In December 2020, the company announced that it is lending support to Renown Health by helping clinicians address the COVID-19 surge. Masimo SafetyNet is being utilized to provide care for COVID-infected patients to recover in the safety of their homes. Further, the telehealth solution can aid clinicians to identify possible deterioration in home-based patients' vital signs and intervene proactively before the situation worsens. With this, Masimo boosted its non-invasive patient-monitoring solutions portfolio.

In March 2021, the company announced favorable outcomes of an observational retrospective study about the Masimo EMMA Portable Capnograph. The study supports the use of EMMA for evaluating respiratory conditions in children with tracheostomy. Masimo's portfolio of capnography and gas monitoring products is likely to get a significant boost on a global scale. Notably, the portfolio is part of the broader patient monitoring solutions business of the company.

▲ **SET Pulse Oximeter Driving Growth:** Masimo's flagship SET pulse oximetry or SET pulse oximeter solution successfully eliminates the limitations of conventional pulse oximeters. Masimo's rainbow SET technology is gaining traction owing to rapid product development. The device has been clinically proven to reliably detect critical congenital heart disease (CCHD) in newborns. The advantages of Masimo's Measure-through Motion and Low Perfusion technology are complemented by the highly differentiated technology embedded in its rainbow products such as SpHb, PVi, and ORi.

In December 2020, the company presented the findings of an abstract study, which explored the efficiency of Masimo noninvasive and continuous hemoglobin monitoring SpHb as part of the transfusion management of pediatric patients going through a major surgery. This data should be a major breakthrough for Masimo's SET Pulse Oximetry portfolio. Throughout 2020, the company saw strong sales of reusable set pulse oximetry sensors, MightySat fingertip pulse oximeters and wearables. In March 2021, the company released findings of a new neonatal study, which demonstrated Masimo SET Pulse Oximetry's unique ability to improve maternal and newborn safety during childbirth and the critical first minutes of life.

In the first quarter of 2021, the global sales of technology boards and instruments were up 36%, driven by strong demand for Masimo SET pulse oximeters and related equipment.

▲ **Product Launches:** In addition to addressing critical care units, Masimo has successfully launched new products that target general floor of hospitals and consumer market. Last year, the company introduced Masimo SafetyNet-Open that was designed to help businesses, governments and schools manage employee and student health and safety better during the COVID-19 crisis. Also, in 2020, the company

Masimo's non-invasive SET pulse oximeter is the key growth catalysts. New product launches and growing installed base of its existing devices are going to help Masimo gain greater market traction.

unveiled its latest automation and connectivity solution, UniView: 60, which leverages the Masimo Hospital Automation platform to aggregate and showcase relevant patient information on a digital display just outside each patient's room, thereby enabling clinicians to acquaint themselves with the most pertinent details of each case at the door a minute before they visit the patient.

In October 2020, the company introduced Radius T^o Continuous Thermometer — a wearable, wireless sensor — that offers customers hassle-free continuous body temperature measurements. In the fourth quarter of 2020, the company also expanded its product portfolio with the launch of organic products like Centroid continuous wearable bed sore and fall detection monitor.

In February 2021, the company announced the U.S. launch of TNI softFlow, innovative pulmonary care therapy, which provides nasal high-flow warmed and humidified respiratory gases to spontaneously breathing patients. The technology, available on the softFlow 50, offers adult patients high-flow respiratory support through a soft nasal cannula by delivering a consistent high flow of warm, humidified air or air/oxygen mixture. In January 2021, Masimo introduced iSirona, a compact, versatile medical device connectivity hub, globally. The iSirona hub is developed to maximize interoperability across continuum of care with the capability of connecting up to six medical devices and automatically routing the data to the Hospital Automation platform.

During the first quarter, within its core parameters business, the company saw solid growth in its Rainbow, NomoLine, SedLine and O3 product lines owing to the rise in elective surgeries. Management also announced an enhanced version of its Rad-G multimodal pulse oximeter, a compact handheld device adapted for use in the field that now includes a noncontact thermometer function.

▲ **Collaborations:** Last year in March and April, Masimo witnessed successful collaborations. The deal with Imprivata helped hospitals through a more powerful patient monitoring and hospital automation solution created to boost clinical workflows and efficacy in a number of ways. Notably, the regional network of St. Luke's Hospital University Health Network in Pennsylvania expanded their use of a range of Masimo hospital automation technologies after impressive outcome results at a pilot site. In the same month, the company announced its collaboration with Samsung Electronics America to make the Masimo SafetyNet Patient App available on select Samsung smartphones.

In May 2020, Masimo extended its licensing agreement with Royal Philips whereby the latter will incorporate additional Masimo measurement technologies into select IntelliVue MX-series multi-parameter monitors to help clinicians evaluate cerebral oximetry and ventilation status.

In February 2021, the company announced that it successfully completed the acquisition deal of Lidco for \$40.1 million. With this acquisition, Masimo is expected to expand its suite of advanced measurements as it added Lidco cardiac output and hemodynamic monitor to its portfolio. The operations of the acquired NanHealth Connected Care business and TNI Medical are fully integrated and this integration already led to next-generation products emerging from both businesses.

▲ **Strong Liquidity Position:** The company exited the first quarter of 2021 with cash and cash equivalents of \$552 million, down from \$641 million in the preceding quarter. Meanwhile, the company does not have either long-term or current debt in the quarter under review. This is good news in terms of the company's solvency level as at least during a year of economic downturn, the company has sufficient cash for debt repayment.

Reasons To Sell:

- ▼ **Shares Down:** Masimo's shares have underperformed the industry over the past six months. The shares have lost 9.4%, against the industry's 1.3% gain. In the first quarter, Masimo's Royalty and Other segment saw no contribution. Contraction of both margins is a concern. Shipments of non-invasive technology boards and instruments (excluding handheld and fingertip pulse oximeters) fell 8.3% to 66,000 in the quarter. Gross margin was 65.8%, down 301 basis points (bps). Operating margin also contracted 345 bps to 21.9% in the quarter.
- ▼ **Foreign Exchange Woes:** A strengthening U.S. dollar negatively impacts the overseas revenues of MedTech companies. Masimo has noticeable international presence. Therefore, a strengthening U.S. dollar, especially against the euro, as well as emerging market currencies negatively impacts the company's results.
- ▼ **Cutthroat Competition in Niche Space:** Masimo faces strong competition from larger players such as Covidien in the pulse oximetry market. Moreover, the company also faces significant competition from OEM distributors as well as large medical devices companies.
- ▼ **Overdependence on Third Parties:** Masimo relies on third-party providers like OEMs for a part of its business. As a result of the third-party reliance, the company's performance could be affected by the loss of its OEM partners.
- ▼ **Customer Concentration:** Masimo faces customer concentration risk. Thus, loss of any of the company's customers would adversely impact the company's top line going forward.

A sluggish hospital capital spending environment remains an overhang. Intensifying competition from peers, over-dependence on third-party providers and customer concentration risks are major concerns.

Last Earnings Report

Masimo Earnings and Revenues Beat Estimates in Q1

Masimo Corporation reported first-quarter 2021 adjusted earnings per share of 90 cents, which surpassed the Zacks Consensus Estimate of 88 cents by 2.3%. However, the bottom line fell 7.2% from the year-ago quarter.

Revenues

For the first quarter, total revenues (including Royalty and other revenues) improved 10.9% year over year to \$299 million and beat the Zacks Consensus Estimate by 0.3% as well.

Segmental Analysis

Product Revenues

Product revenues in the first quarter totaled \$299 million, up 10.9% from the year-ago quarter and 9.5% in constant currency (cc).

Per management, shipments of non-invasive technology boards and instruments (excluding handheld and fingertip pulse oximeters) fell 8.3% to 66,000 in the quarter.

Margin Analysis

In the quarter under review, gross profit totaled \$196.9 million, up 6.1% year over year. Gross margin was 65.8%, down 301 bps.

Total operating costs came in at \$131.2 million, up 12%.

Operating profit in the quarter totaled \$65.7 million, down 4.2% from the year-ago level. Operating margin contracted 345 bps to 21.9% in the quarter.

Cash Position

The company exited the first quarter of 2021 with cash and cash equivalents of \$551.9 million compared with \$641.4 at the end of the fourth quarter of 2020.

Net cash provided by operating activities came in at \$59.3 million compared with \$42.4 million in the year-ago period.

2021 Guidance

Total revenues are projected at \$1.21 billion, up from the previous view of \$1.20 billion. The Zacks Consensus Estimate for the metric is pegged at \$1.20 billion.

Adjusted earnings per share is projected at \$3.83, up from the previous outlook of \$3.80. The Zacks Consensus Estimate for the same is pegged at \$3.81.

Quarter Ending	03/2021
Report Date	Apr 26, 2021
Sales Surprise	0.30%
EPS Surprise	2.27%
Quarterly EPS	0.90
Annual EPS (TTM)	3.53

Recent News

Masimo's Wearable Wireless Thermometer Gets FDA Nod: Jun 21, 2021

Masimo announced receipt of the FDA 510(k) clearance for its wearable, wireless thermometer — Radius T° — for both prescription and over-the-counter use on patients and consumers above the age of five.

Masimo's ORI-Guided OLV Procedure Favored by New Study: Jun 14, 2021

Masimo announced the findings of a favorable study result after evaluating the utility and impact of Masimo Patient SafetyNet that was published in the *Journal of PeriAnesthesia Nursing*. The findings are based on the observation of nurses before and after the implementation of the Patient SafetyNet.

Masimo's Patient SafetyNet on Nursing Workflows Favored by New Study: May 17, 2021

Masimo announced the findings of a study which found that the use of Patient SafetyNet with Masimo SET Pulse Oximetry and Acoustic Respiratory Rate monitoring significantly reduces nursing workload related to postoperative respiratory assessment. This result was also published in the *Journal of PeriAnesthesia Nursing*.

New Study Favors Masimo's O3 for ICU Patients: May 10, 2021

Masimo announced the findings of a study published in the *Journal of Anesthesia & Clinical Research* which evaluated the utility of Masimo O3 Regional Oximetry to aid in monitoring septic shock patients admitted to the ICU.

Masimo's PVi Favored by New Study in Nasal High-Flow Patients: May 3, 2021

Masimo announced the publication of a study in the *Journal of Applied Physiology* in which researchers evaluated the utility of Masimo PVi as a non-invasive method of predicting preload responsiveness in patients treated with nasal high-flow therapy.

Masimo's Radius PCG Gets FDA Approval: Apr 12, 2021

Masimo announced the receipt of the FDA's 510(k) clearance for its Radius PCG, a portable real-time capnograph with wireless Bluetooth connectivity. Radius PCG connects with the Root Patient Monitoring and Connectivity Platform to provide seamless, tetherless mainstream capnography for patients of all ages.

New Study Evaluates Impact of Masimo O3 on COVID-19 Patients: Apr 6, 2021

Masimo announced the results of a prospective, observational study published in *Critical Care* in which researchers evaluated the impact of a variety of rescue therapies on the systemic and cerebral oxygenation of mechanically ventilated COVID-19 patients suffering from acute respiratory distress syndrome.

Valuation

Masimo's shares are down 10.3% and up 5.5% in the year-to-date period and the trailing 12-month periods, respectively. Stocks in the Zacks sub-industry and Zacks Medical Market are up 2.4% and up 1.1% in the year-to-date period, respectively. Over the past year, the stocks in the Zacks sub-industry are up 18.7% while that in the sector are up 3.1%.

The S&P 500 index is up 11.8% in the year-to-date period and up 35.1% in the past year.

The stock is currently trading at 58.7X Forward 12-months earnings, which compares to 39.1X for the Zacks sub-industry, 23X for the Zacks sector and 21.4X for the S&P 500 index.

Over the past five years, the stock has traded as high as 76.1X and as low as 25.2X, with a 5-year median of 40.1X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$253 price target reflects 61.7X forward 12-months earnings.

The table below shows summary valuation data for MASI.

Valuation Multiples - MASI					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	58.67	39.07	23.00	21.35
	5-Year High	76.09	42.19	23.00	23.83
	5-Year Low	25.23	22.81	15.82	15.31
	5-Year Median	40.09	30.54	19.33	18.05
P/S F12M	Current	10.51	4.83	2.67	4.63
	5-Year High	13.48	4.83	3.17	4.74
	5-Year Low	3.51	2.56	2.27	3.21
	5-Year Median	7.00	3.57	2.78	3.70

P/B TTM	5-Year Median	7.00	3.57	2.78	3.72
	Current	9.97	4.68	4.48	6.93
	5-Year High	11.14	5.18	5.05	7.08
	5-Year Low	5.62	2.82	3.03	3.84
	5-Year Median	7.56	4.21	4.35	5.02

As of 06/21/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 17% (208 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Baxter International Inc. (BAX)	Neutral	3
Becton, Dickinson and Company (BDX)	Neutral	4
DexCom, Inc. (DXCM)	Neutral	3
Honeywell International Inc. (HON)	Neutral	3
Medtronic PLC (MDT)	Neutral	3
Stryker Corporation (SYK)	Neutral	3
Teleflex Incorporated (TFX)	Neutral	3
Quidel Corporation (QDEL)	Underperform	5

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

Industry Comparison Industry: Medical - Instruments				Industry Peers		
	MASI	X Industry	S&P 500	BDX	HON	MDT
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	4	3	3
VGM Score	D	-	-	A	C	C
Market Cap	13.24 B	429.78 M	29.97 B	70.04 B	150.02 B	169.24 B
# of Analysts	2	2	12	11	9	14
Dividend Yield	0.00%	0.00%	1.35%	1.38%	1.72%	1.85%
Value Score	D	-	-	A	C	B
Cash/Price	0.04	0.13	0.06	0.06	0.09	0.07
EV/EBITDA	43.29	-4.30	17.02	22.86	20.82	24.57
PEG F1	3.88	3.88	2.08	2.14	2.55	2.48
P/B	9.97	4.80	4.11	2.82	8.22	3.28
P/CF	55.76	30.48	17.39	13.57	24.81	26.73
P/E F1	62.25	41.67	20.94	18.80	26.95	22.10
P/S TTM	11.28	7.25	3.39	3.71	4.60	5.62
Earnings Yield	1.59%	-1.73%	4.67%	5.32%	3.71%	4.52%
Debt/Equity	0.00	0.06	0.66	0.71	0.88	0.51
Cash Flow (\$/share)	4.32	-0.15	6.83	17.74	8.71	4.70
Growth Score	D	-	-	B	C	B
Historical EPS Growth (3-5 Years)	16.81%	8.66%	9.59%	7.53%	3.31%	-1.80%
Projected EPS Growth (F1/F0)	6.39%	29.89%	21.57%	25.62%	12.88%	30.41%
Current Cash Flow Growth	14.99%	0.70%	0.99%	-8.29%	-14.09%	-28.61%
Historical Cash Flow Growth (3-5 Years)	21.53%	5.52%	7.28%	16.70%	1.22%	-6.95%
Current Ratio	4.99	4.11	1.39	1.86	1.43	2.65
Debt/Capital	0.00%	8.05%	41.51%	41.65%	46.92%	33.83%
Net Margin	19.54%	-22.60%	11.95%	8.98%	14.18%	11.98%
Return on Equity	14.95%	-21.97%	16.48%	15.53%	26.51%	11.82%
Sales/Assets	0.70	0.46	0.51	0.35	0.51	0.32
Projected Sales Growth (F1/F0)	5.21%	17.48%	9.41%	13.63%	6.63%	10.54%
Momentum Score	D	-	-	A	A	F
Daily Price Change	0.25%	0.00%	1.40%	0.12%	1.65%	1.87%
1-Week Price Change	8.13%	-0.16%	-0.71%	-0.87%	-5.63%	-0.44%
4-Week Price Change	10.29%	1.97%	0.66%	-1.19%	-4.00%	-2.00%
12-Week Price Change	6.25%	0.00%	6.39%	-2.55%	-1.32%	5.35%
52-Week Price Change	5.08%	35.16%	35.50%	2.40%	49.03%	34.51%
20-Day Average Volume (Shares)	385,481	201,794	1,885,424	1,547,829	2,459,269	4,935,992
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%	0.01%	0.09%	0.14%	-1.16%
EPS F1 Estimate 12-Week Change	0.66%	0.00%	3.59%	-0.01%	1.95%	-1.22%

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

EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	-0.49%	0.35%	0.26%
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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	D
Growth Score	D
Momentum Score	D
VGM Score	D

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.

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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 forward-looking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

Returns quoted represent past performance which is no guarantee of future results. Investment returns and principal value will fluctuate so that when shares are redeemed, they may be worth more or less than their original cost. Current performance may be higher or lower than the performance shown.

Investing involves risk; principal loss is possible. There is no guarantee that companies that can issue dividends will declare, continue to pay or increase dividends.

Glossary of Terms and Definitions

52-Week High-Low: The range of the highest and lowest prices at which a stock has traded during the past year. This range is determined based on the stock's daily closing price which may differ from the intra-day high or low. Many investors use it as a technical indicator to determine a stock's current value and future price movement. The idea here is that if price breaks out from the 52-week range, in either direction, the momentum may continue in the same direction.

20-Day Average Volume (Shares): The average number of shares of a company traded in a day over the last 20 days. It is a direct indication of a security's overall liquidity. The higher the average daily trading volume, the easier it is to enter or exit the stock at a desired price with more buyers and sellers being available.

Daily Price Change: This is the percentage difference between a trading day's closing price and the prior trading day's closing price. This item is updated at 9 p.m. EST each day.

1-Week Price Change: This is the percentage change in a stock's closing price over the last 5 trading days. This change reflects the collective buying and selling sentiment over the 1-week period.

A strong weekly price increase for the stock, especially when accompanied by increased volume, is an indication of it gaining momentum.

4-Week Price Change: This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a medium-term price change metric and an indication of the stock gaining momentum.

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

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

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

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

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

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

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

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

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

proportionate to its market value.

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

EV/CF Ratio: The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-

term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

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

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

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

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

P/TB Ratio: The price-to-tangible-book value ratio is calculated as 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.