Varian Medical Systems (VAR)

$174.77 (As of 12/24/20)

Price Target (6-12 Months): **$184.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 11/19/19) Prior Recommendation: Outperform	**Neutral**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**3-Hold**
	Zacks Style Scores:	VGM:C
	Value: C | Growth: B | Momentum: F	

Summary

Varian's management is optimistic about the completed acquisitions of CyberHeart Cancer Treatment Services International, Endocare and Alicon. The receipt of 10 Ethos orders and one Proton order buoys optimism. Expansion in gross margin is an added positive. Moreover, the company's merger agreement with Siemens Healthineers will enable it to expand its renowned customer care, thereby offering service to clinicians and patients from the very first stage of cancer. Varian exited fiscal 2020 on a strong note as earnings and revenues beat estimates. Over the past year, the stock has outperformed its industry. On the flip side, the company saw revenue decline at each of its core operating segment in the quarter. Oncology gross orders also contracted in the quarter, especially in EMEA. Contraction in adjusted operating margin is concerning.

Price, Consensus & Surprise

Source: Zacks Investment Research

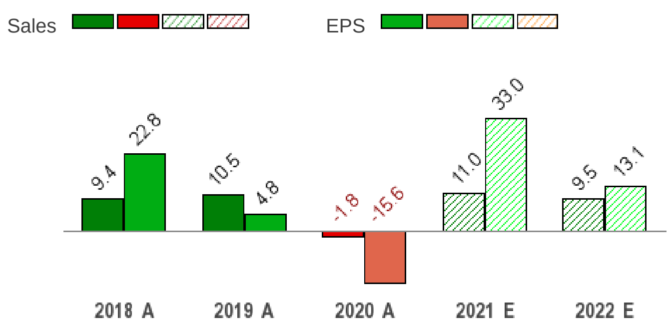
Data Overview

52-Week High-Low	**$176.19 - $89.62**
20-Day Average Volume (Shares)	**724,039**
Market Cap	**$16.0 B**
Year-To-Date Price Change	**23.1%**
Beta	**1.07**
Dividend / Dividend Yield	**$0.00 / 0.0%**
Industry	**Medical - Instruments**
Zacks Industry Rank	**Top 50% (127 out of 255)**

Last EPS Surprise	**14.3%**
Last Sales Surprise	**2.3%**
EPS F1 Estimate 4-Week Change	**-0.1%**
Expected Report Date	**02/03/2021**
Earnings ESP	**0.0%**

P/E TTM	**44.7**
P/E F1	**33.6**
PEG F1	**4.2**
P/S TTM	**5.0**

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2022					3,852 E
2021	866 E	882 E	822 E	925 E	3,518 E
2020	829 A	795 A	694 A	851 A	3,168 A

EPS Estimates

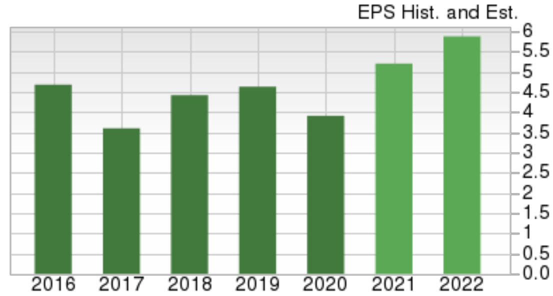
	Q1	Q2	Q3	Q4	Annual*
2022					$5.88 E
2021	$1.16 E	$1.25 E	$1.30 E	$1.49 E	$5.20 E
2020	$1.16 A	$0.85 A	$0.78 A	$1.12 A	$3.91 A

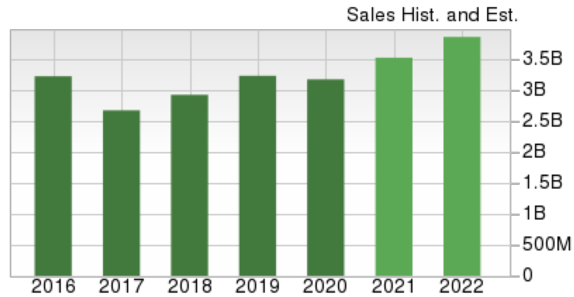
*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 12/24/2020. The reports text is as of 12/28/2020.

Overview

Headquartered in Palo Alto, CA, Varian Medical Systems Inc. (VAR) is the world's leading provider of radiotherapy, radiosurgery, proton therapy and brachytherapy for treating cancer and other medical conditions. It is also a premier supplier of X-Ray tubes for medical, scientific, and industrial applications. Notably, Varian Medical is among the top five players when it comes to Oncology Devices market in terms of revenues. The company with all its focus in Oncology business expansion has inflated its Oncology Systems revenue share to 95% in fiscal 2019 from 77% five years back.





The main operating segments are Oncology Systems and Proton Therapy. The company also reports an Other segment that includes Ginzton Technology Center (GTC) and Varian Particle Therapy (VPT) businesses.

Oncology Systems is Varian Medical's largest operating business segment. It provides products for radiation treatment of cancer with conventional radiation therapy, intensity modulated radiation therapy (IMRT), image guided radiation therapy (IGRT), volumetric modulated arc therapy (VMAT), stereotactic radiosurgery, stereotactic radiotherapy and brachytherapy.

The use of **Proton Therapy** to treat cancerous tumors is a major technological advance. Proton therapy delivers the beam precisely where it is required. Varian's ProBeam system is at the forefront of the industry, having created the world's first commercially available pencil beam scanning system, which is the most precise form of proton therapy available.Currently, proton therapy as a whole is offered at 48 centers worldwide.

FY20 at a Glance

For fiscal 2020, Varian's revenues totaled $3.17 billion, down 2% from fiscal 2019.

For fiscal 2020, revenues at the Oncology unit totaled $2.99 billion (representing 94.3% of net sales). Revenues at Proton Solutions totaled $121.1 million (3.8%) while that at the Other unit grossed $49.3 million (1.6%).

Source: Zacks Investment Research

Reasons To Buy:

Strong revenue opportunity from its various Oncology and Imaging Component products, growing adoption of Proton Therapy, strong overseas presence, particularly in emerging countries are positives.

▲ **Shares Up**: Over the past year, shares of Varian gained 23.6%, compared with the industry's rise of 19%. In the fiscal fourth quarter, the receipt of 10 Ethos orders (including five in North America and five in EMEA) and one Proton order buoys optimism.The launch of new features for its Noona software application instills optimism on the stock. The merger agreement with Siemens Healthineers continues to instill optimism.

▲ **Lucrative Partnerships and Acquisitions**: Varian has been focusing on inorganic growth through its acquisition strategy. In June 2019, Varian completed the acquisition ofCancer Treatment Services International (CTSI) for $283 million. The transactionis expected to boost Varian Medical's core Oncology Systems business. Since the buyout of CTSI, the annual run rate for treatment plans has doubled to more than 16,000 per year. The CTSI buyout has to continued drivethe company's Service revenues in the past couple of quarters and the fiscal third quarter was no exception.The company also expects the buyout to be accretive to earnings per share (EPS) during fiscal 2021 on an adjusted basis and fiscal 2022 on a reported basis.

On Aug 2, 2020, in the biggest MedTech deal so far, this year, it was announced that Varian will be acquired by Siemens Healthineers in an all-cash deal of $16.4 billion. The deal is expected to be completed in the first half of next year and post completion, Varian will continue to operate as an independent company under Siemens. With this transaction, Varian will be able toexpand its renowned customer care, thereby offering service to clinicians and patients from the very first stage in the battle against cancer.

In November 2020, the company inked a new $10 million investment and partnership agreement with COTA, Inc., a Boston-based curator of clinical data in oncology. Both companies will collaborate to equip cancer clinics with data analytics and decision support tools, using real-world evidence tohelp guide clinical and operational decisions as well as drive cost-efficient patient outcomes.

▲ **Machine-Learning Capabilities With RapidPlan**: Machine-Learning or Artificial Intelligence has been taking the MedTech industry by storm. In March 2020, Varian announced the newest release of its treatment planning system, Eclipse v16. This new release comprises intelligent features such as RapidPlan PT, the first clinical application of machine learning in proton treatment planning.

▲ **Halcyon Platform Drives Sales**: The Halcyon radiotherapy treatment system has been designed to offer cost-effective cancer care worldwide. The system streamlines every aspect of image-guided volumetric intensity modulated radiotherapy (IMRT).

The company's Halcyon Treatment Systemsecured approval from the China National Medical Product Administration in March 2020, which is likely to expand the global availability of Halcyon.

In February 2020, the company received approval for Halcyon 2.0. The system incorporates imaging technologies such as kilovoltage cone-beam CT and iterative reconstructive cone-beam CT for better soft tissue definition. The company received three new system orders and five system upgrade orders for Halcyon 2.0. It inked a deal with National Health Service Trust for 15 TrueBeam machines and five Halcyon systems to equip centers across England. Additionally, Varian received an order for 12 TrueBeam machines, 22 Halcyon systems and one VitalBeam from Pharmstandard in Russia.

In September 2020, Varian announced that Proton Therapy Pte. Ltd. has become the first to bring Halcyon system – an innovative treatment platform – into Singapore with its order for the same. Notably, Proton Therapy Pte intends to treat its first patient with the same by the end of 2020.

▲ **HyperArc Platform**: HyperArc platform is Varian's high definition radiotherapy technology. Notably, HyperArc is designed to treat multiple metastases brain cancer cases and continues to witness strong demand. Per MarketsAndMarkets, the global radiotherapy market is projected to reach a worth of $9.47 billion by 2022 from USD 6.81 billion in 2017, at a CAGR of 6.8%.

Varian has also announced that patients at the Chi Mei Medical Center with brain lesions became the first group in Taiwan to be treated using the company's HyperArc High Definition Radiotherapy system. Other recent software introductions, such as InSightive analytics and 360 Oncology systems, are expected to gather momentum over the long haul.

In May 2020, the company partnered withNational University Cancer Institute, Singapore (NCIS), to expand access to cancer solutions in Singapore in the fight against cancer. Two Varian VitalBeam medical linear accelerators along with an Edge radiosurgery system with HyperArc technology will be installed at NCIS, thereby widening the scope of radiation therapy treatment options for cancer patients in Singapore.

▲ **Solid R&D Prospects**: Varian operates in a technology-driven environment where success depends on innovation and frequent product updates. The company has been successful on the R&D front as evident from year-over-year expansion in its top line. The varied offerings include TrueBeam and Edge platforms, HyperArc, Halcyon, InSightive Analytics, Qumulate QA and RapidPlan knowledge-based treatment planning. We believe that Varian's innovative product pipeline will continue to drive overall growth over the long term.

In May 2020, the company launched new features for its Noona software application, a powerful tool developed to engage cancer patients in their continuous reporting and symptom monitoring processes. Noona offers cancer care teams in-app features such as patient screening, real-time symptom reporting, secure care team messaging, telephone triage workflow automation, and patient access to medical records, thereby helping them with the new short and long-term healthcare changes resulting from the coronavirus pandemic.This development, which is in response to the challenges brought on by the pandemic, is expected to boost Varian's Oncology segment.

▲ **Notable Developments in Proton Therapy**: In recent times, Varian has seen notable developments in its core Proton therapy unit, which falls under its Particle Therapy business.

For instance, the company's New York Proton Center, the state's first proton therapy facility, treated its first patient on Variance ProBeam Proton Therapy System in recent times. The center is expected to treat 1,400 patients annually.

Meanwhile, the Proton pipeline remains strong. Also, Varian's ProBeam 360° system was selected by Penn Medicine to be installed at the Lancaster General Health Ann B. Barshinger Cancer Institute. Notably, the institute expects to treat its first patient in 2021.At the end of the fiscal first quarter, Varian was selected by China Medical University Hospital in Taiwan to install a ProBeam 360° system, ARIA information management system, ARIA information management system and the Eclipse treatment planning system. This is scheduled for completion in 2024.

In March 2020, the company announced that the Proton International at the University of Alabama at Birmingham (UAB) has successfully treated its first cancer patient with the Varian ProBeam Compact proton therapy system. In the same month, the company launched its treatment planning system, Eclipse v16, leveraging its Intelligent Cancer Care approach in developing new solutions that utilize advanced technologies like machine learning. The company has received CE mark for the system. The launch of this system is a step forward in Varian's commitment toward strengthening its Proton Solutions segment.

In the fiscal fourth quarter of 2020, revenues at the Proton Solutions segment fell 8.1%. However, in September 2020, the company received FDA 510(k) clearance for its Eclipse v16.1 treatment planning software for proton therapy. This should boost Varian's Proton Therapy Solutions segment.

In October 2020, the company announced the receipt of an Investigational Device Exemption (IDE) from the FDA for the first-ever clinical trial of FLASH therapy, an experimental treatment modality delivering radiation therapy at ultra-high dose rates. FLASH therapy, involving ultra-high dose rates and delivery in typically less than one second, may be over 100 times swifter compared to conventional radiation therapy. This should boost Varian's Proton Therapy Solutions segment.

▲ **Strength in AI & Medical Mechatronics**: Mechatronics, a high-end technology incorporating electronics, machine learning and mechanical engineering, has been in vogue, of late. A research by the Business Wire deciphers that the global Mechatronics and Robotics market is projected to witness a CAGR of 15.02% during the 2017-2021 period.

Varian has received significant exposure to Medical Mechatronic trends on its Halcyon and HyperArc platforms. Further, Varian's HyperArc platform is designed to treat multiple metastases brain cancer cases and continues to witness strong demand.

In February 2020, the company received FDA 510 clearance for its Ethos therapy solution in the United States.In March 2020, Varian was selected to equip the new Ethos Personalized Adaptive Therapy Center in Arizona with the company's Ethos therapy. In the same month, the company announced Medisch Spectrum Twente Hospital in The Netherlands, and Icon Cancer Centre Wahroonga and Royal North Shore Hospital (RNSH) in Australia treated their first patients with Ethos therapy. It is an artificial intelligence (AI)-powered holistic adaptive therapy solution, designed to deliver an entire adapted treatment for daily customized radiation therapy within a 15-minute timeslot.

In September 2020, Varian announced that Goshen Center for Cancer Care in Goshen treated its first patient with Ethos Therapy. This marks the first availability of this advanced cancer treatment in Indiana. Notably, Goshen Center of Cancer Care is the second provider in the United States and the only provider in the state of Indiana to offer Ethos Therapy. This announcement is anticipated to strengthen Varian's Oncology Systems segment and enhance its exposure to Artificial Intelligence (AI).In the same month, the company announced the receipt of Germany's first order of Ethos therapy from the German Cancer Research Center (DKFZ) in Heidelberg. Notably, the first Ethos therapy in Germany is set to be installed and will commence treatment of patients by early 2021.This announcement is anticipated to strengthen Varian's Oncology Systems segment and enhance its exposure to AI. Moreover, it is likely to expand the company's geographic footprint, with respect to the adoption of Ethos therapy.

▲ **Strong Geographic Foothold**: International emerging markets are a bit under-equipped to address the growing incidence of cancer. The company's strong overseas presence is expected to enable it to leverage this opportunity in emerging markets. Precisely, the company's Oncology Systems segment has been making noteworthy progress worldwide.
In May 2020, the company announced that it is installing a Varian ProBeam Compact system equipped with a 360-degree gantry and integrated cone beam CT at Proton Therapy Pte., Ltd.'s site in Singapore.

However, in the fiscal fourth quarter, orders in the United States dropped 19% year over year, which included a 17% decline in North America. In EMEA, orders fell 4% year over year, while APAC orders rose 14% year over year.

▲ **Stable Liquidity Position**: Varian is well capitalized, having exited the fiscal fourth quarter of 2020 with cash and cash equivalents of $766.1 million, up from $769 million in the previous quarter. Long-term debt at the end of the quarter was $101.1 million, sequentially down from $102.6 million. The company finished the fourth quarter with current debt of $355 million on its balance sheet, sequentially down from $580 million. Hence we see that both the debt levels are noticeably lower than the cash and cash equivalents. This is particularly good when it comes to the company's solvency position, as at least during a year of economic downturn, the company has sufficient cash for debt repayment.

Reasons To Sell:

- **Weak Trends**: In the fiscal fourth quarter,Oncology segmentrevenues fell 2.3% year over year. Also, Proton Solutions revenues fell 8.1%. As a whole, gross orders fell 8% from the year-ago quarter to $1 billion. Orders in the United States dropped19% year over year, which included a 17% decline in North America. In EMEA, orders fell 4% year over year.

Cutthroat competition in the niche space has been a strong headwind for Varian Medical. The company's margin trend has lacked luster over the last few quarters.

- **Cutthroat Competition**: Varian competes with large electronic companies such as Siemens and Philips as well as with smaller and more specialized radiation therapy equipment manufacturers like Elekta, Accuray, Philips, Medtronic and Stryker.

  In the emerging proton therapy market, the company faces competition from Hitachi, Ion Beam Applications, Mevion Medical Systems and Sumitomo. Intensifying competition is expected to increase R&D expenditures in the nascent proton therapy market, which will keep margins under pressure. Moreover, pricing pressure in traditional radiotherapy also remains a major concern.

- **Softness in Free-standing Clinics Market**: The ongoing softness in the market for freestanding clinics is a matter of concern. The contribution from the freestanding clinics to the order growth rate in the domestic market was nominal.

  Per management, the freestanding clinic market accounts for only 10% of the company's worldwide orders. However, the sustained pressure is expected to have considerable short-term impact on Varian.

Last Earnings Report

Varian Earnings and Revenues Surpass Estimates in Q4

Quarter Ending	09/2020
Report Date	Oct 27, 2020
Sales Surprise	2.27%
EPS Surprise	14.29%
Quarterly EPS	1.12
Annual EPS (TTM)	3.91

Varian Medical Systems, Inc. reported fourth-quarter fiscal 2020 adjusted earnings per share of $1.12, beating the Zacks Consensus Estimate of 98 cents by 14.3%. The figure however fell 7.4% year over year.

For fiscal 2020, adjusted EPS came at $3.91, beating the Zacks Consensus Estimate of $3.77 by 3.7%. Moreover, the bottom line fell 15.6% year over year.

Revenue Details

The company reported revenues of $850.5 million, which beat the consensus mark of $832 million by 2.2%. However, revenues fell 3.2% year over year and 4% at constant currency (cc).

For fiscal 2020, the company reported revenues of $3.17 billion, which beat the consensus mark of $3.15 billion by 0.6%. Revenues fell 2% year over year and 1% at constant currency (cc). Organically it fell 4%.

Segment Details

Oncology Systems: Revenues totaled $800.4 million, down 2.3% year over year.

As a whole, gross orders fell 8% from the year-ago quarter to $1 billion.

Orders in the United States dropped 19% year over year, which included a 17% decline in North America. In EMEA, orders fell 4% year over year, while APAC orders rose 14% year over year.

Proton Solutions: Revenues at the segment fell 8.1% to $38.5 million.

Other: Revenues at this segment grossed $12 million, down 33%. For investors’ notice, the segment comprises Interventional Solutions business, including cryoablation, embolic microspheres, and microwave ablation. Moreover, it comprises investments in cardiac radioablation.

Margins

Total gross profit in the reported quarter was $375 million, down 2.6% year over year. Gross margin in the reported quarter was 44.1% of net revenues, up 30 basis points (bps).

Adjusted operating profit came in at $123 million, down 10.7% year over year.As a percentage of revenues, adjusted operating margin was 14.5%, down 122 bps.

Cash Position

The company exited fiscal 2020 with $766.1 million in cash and cash equivalents, compared with $531.4 million in the year-ago period.

Cumulative net cash provided by operating activities at the end of fiscal 2020 was $266 million compared with $117.8 million in the year-ago period.

Guidance

In the quarter under review, the company did not issue any guidance due to the continued uncertainty surrounding the magnitude and duration of the COVID-19 pandemic.

Recent News

Varian Expands Access to Advanced Cancer Treatment With Ethos: Sep 10, 2020

Varian Medical Systems recently announced that Goshen Center for Cancer Care in Goshen treated its first patient with Ethos Therapy. This marks the first availability of this advanced cancer treatment in Indiana. Notably, Goshen Center of Cancer Care is the second provider in the United States and the only provider in the state of Indiana to offer Ethos Therapy.

Varian Expands Geographic Footprint with Germany's Ethos Order: Sep 10, 2020

Varian Medical Systems recently announced that it has received Germany's first order of Ethos therapy from the German Cancer Research Center (DKFZ) in Heidelberg. Notably, the first Ethos therapy in Germany is set to be installed and commence the treatment of patients by early 2021.

Valuation

Varian's shares are up 23% and 23.6% in the year-to-date period and trailing 12-month periods, respectively. Stocks in the Zacks sub-industry and Zacks Medical sector are up 23.7% and up 7.3% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry are up 19% while that in the sector are up 6.3%.

The S&P 500 index is up 19% in the year-to-date period and 19.2% the past year.

The stock is currently trading at 32.6X Forward 12-months earnings, which compares to 35.8X for the Zacks sub-industry, 22.3X for the Zacks sector and 22.9X for the S&P 500 index.

Over the past five years, the stock has traded as high as 45.5X and as low as 15.3X, with a 5-year median of 23.9X.

Our Neutral recommendation indicates that the stock will perform better in-line with the market. Our $184 price target reflects 34.2X forward 12-months earnings.

The table below shows summary valuation data for VAR.

Valuation Multiples - VAR

		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	32.57	35.83	22.32	22.86
	5-Year High	45.54	41.62	22.90	23.79
	5-Year Low	15.32	22.83	15.89	15.30
	5-Year Median	23.99	29.06	19.00	17.81
P/S F12M	Current	4.44	4.71	2.84	4.34
	5-Year High	4.95	4.71	3.16	4.34
	5-Year Low	2.18	2.55	2.26	3.17
	5-Year Median	3.36	3.29	2.84	3.67
P/B TTM	Current	7.62	4.79	4.53	6.37
	5-Year High	8.53	4.92	5.10	6.40
	5-Year Low	4.20	2.79	3.02	3.74
	5-Year Median	6.61	4.05	4.34	4.93

As of 12/24/2020 *Source: Zacks Investment Research*

Industry Analysis **Zacks Industry Rank:** Top 50% (127 out of 255)

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Accuray Incorporated **(ARAY)**	Outperform	2
Becton, Dickinson and Company **(BDX)**	Neutral	3
CONMED Corporation **(CNMD)**	Neutral	3
Masimo Corporation **(MASI)**	Neutral	3
Medtronic PLC **(MDT)**	Neutral	3
Novartis AG **(NVS)**	Neutral	3
Koninklijke Philips N.V. **(PHG)**	Neutral	3
Stryker Corporation **(SYK)**	Neutral	3

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

Industry Comparison Industry: Medical - Instruments

Industry Peers

	VAR	X Industry	S&P 500	ARAY	CNMD	MASI
Zacks Recommendation (Long Term)	Neutral	-	-	Outperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	2	3	3
VGM Score	C	-	-	F	B	D
Market Cap	15.97 B	185.37 M	26.20 B	404.34 M	3.23 B	14.64 B
# of Analysts	5	2	13	2	5	4
Dividend Yield	0.00%	0.00%	1.48%	0.00%	0.71%	0.00%
Value Score	C	-	-	D	C	D
Cash/Price	0.05	0.12	0.06	0.22	0.01	0.05
EV/EBITDA	32.26	-1.92	14.57	33.09	25.01	54.04
PEG F1	4.20	3.92	2.83	NA	4.92	3.92
P/B	7.62	4.49	3.64	5.99	4.72	10.35
P/CF	34.80	25.53	13.90	222.40	19.76	68.39
P/E F1	33.61	60.73	22.12	443.00	53.27	76.81
P/S TTM	5.04	5.26	2.85	1.07	3.69	13.36
Earnings Yield	2.98%	-1.98%	4.36%	0.23%	1.88%	1.30%
Debt/Equity	0.00	0.06	0.70	2.57	1.11	0.00
Cash Flow ($/share)	5.02	-0.16	6.93	0.02	5.71	3.89
Growth Score	B	-	-	F	B	D
Historical EPS Growth (3-5 Years)	0.16%	7.61%	9.71%	NA	9.78%	21.58%
Projected EPS Growth (F1/F0)	33.04%	17.33%	1.26%	-66.67%	-19.77%	7.53%
Current Cash Flow Growth	-11.95%	4.97%	5.23%	-353.59%	29.97%	8.77%
Historical Cash Flow Growth (3-5 Years)	-1.79%	10.01%	8.33%	15.99%	10.33%	19.44%
Current Ratio	1.40	3.20	1.38	1.97	2.26	4.98
Debt/Capital	0.00%	9.67%	41.97%	72.01%	52.68%	0.00%
Net Margin	8.50%	-22.98%	10.40%	3.41%	0.04%	20.30%
Return on Equity	18.45%	-24.38%	14.99%	4.33%	9.48%	15.75%
Sales/Assets	0.72	0.51	0.50	0.79	0.50	0.71
Projected Sales Growth (F1/F0)	11.03%	0.00%	0.35%	-2.10%	-8.55%	20.30%
Momentum Score	F	-	-	C	C	B
Daily Price Change	0.02%	0.00%	0.29%	0.68%	0.41%	0.17%
1-Week Price Change	0.13%	0.93%	0.87%	7.78%	6.61%	0.25%
4-Week Price Change	0.38%	7.13%	0.99%	1.61%	8.02%	8.37%
12-Week Price Change	1.83%	13.11%	14.77%	75.10%	44.09%	12.48%
52-Week Price Change	23.37%	12.51%	5.47%	46.21%	2.28%	67.76%
20-Day Average Volume (Shares)	724,039	211,453	2,028,114	728,780	242,610	370,339
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	-0.12%	0.00%	0.00%	0.00%	-0.66%	0.00%
EPS F1 Estimate 12-Week Change	3.30%	5.27%	3.68%	110.00%	40.26%	17.87%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	0.00%	-1.76%	0.00%

Source: Zacks Investment Research

Zacks Stock Rating System

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

Zacks Recommendation

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

Zacks Rank

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

Zacks Style Scores

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

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

Value Score	C
Growth Score	B
Momentum Score	F
VGM Score	C

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.

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

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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