

Bruker Corporation (BRKR)

\$43.35 (As of 07/28/20)

Price Target (6-12 Months): **\$46.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 06/02/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:F

Value: D

Growth: D

Momentum: C

Summary

We are upbeat about Bruker's focus on product development on higher R&D investment. Potential of the Nano Group, PCI and the MALDI Biotyper buoys optimism. Rising demand for MALDI Biotyper in applied markets and a strong solvency but leveraged balance sheet bodes well. Yet, Bruker's lower-than-expected results in the first quarter of 2020 and fall in revenue across all reporting segments and major geographies amid the pandemic are concerning. Contraction of both margins is deterring. Exposure to foreign exchange fluctuations is worrying as it conducts majority of its business in international markets. Also, stiff competition and macroeconomic woes stemming from the pandemic pose challenges to the company. Suspension of the 2020 guidance is deterring. Over the past six months, Bruker has underperformed the industry it belongs to.

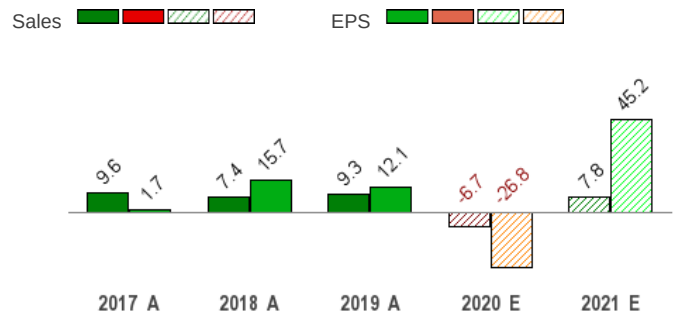
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$54.49 - \$30.78
20 Day Average Volume (sh)	531,388
Market Cap	\$6.7 B
YTD Price Change	-15.0%
Beta	1.38
Dividend / Div Yld	\$0.16 / 0.4%
Industry	Instruments - Scientific
Zacks Industry Rank	Top 2% (5 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	-36.4%
Last Sales Surprise	-1.3%
EPS F1 Est- 4 week change	0.7%
Expected Report Date	08/03/2020
Earnings ESP	-55.6%

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	449 E	450 E	500 E	631 E	2,085 E
2020	424 A		499 E	620 E	1,934 E
2019	461 A	490 A	521 A	600 A	2,073 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.31 E	\$0.34 E	\$0.42 E	\$0.55 E	\$1.67 E
2020	\$0.14 A	\$0.05 E	\$0.33 E	\$0.60 E	\$1.15 E
2019	\$0.28 A	\$0.33 A	\$0.43 A	\$0.53 A	\$1.57 A

*Quarterly figures may not add up to annual.

P/E TTM	30.3
P/E F1	37.7
PEG F1	3.1
P/S TTM	3.3

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 07/28/2020. The reports text is as of 07/29/2020.

Overview

Billerica, MA-headquartered Bruker Corporation designs and manufactures proprietary life science and materials research systems and associated products that serve multiple customers in life science research, pharmaceuticals, applied markets, nanotechnology, cell biology, clinical research, microbiology and in-vitro diagnostics. Currently, Bruker employs 6,000 individuals who work at 90 locations across the globe. It has direct sales forces employed through North America, Europe, Japan, Asia Pacific and Australia.

Business Segments:

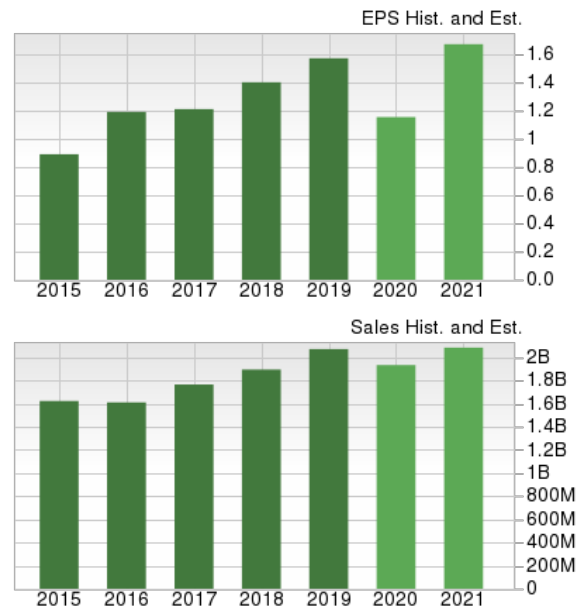
Bruker Scientific Instruments (BSI) Life Science: Within the segment, Bruker reports under two groups: Bruker BioSpin Group (comprising 29.9% of revenues in 2019, up 5.1% from 2018) and Bruker CALID Group (30.1%, up 13.8%).

The **Bruker BioSpin** comprises the Bruker Magnetic Resonance and Preclinical Imaging divisions, which designs, manufactures and distributes enabling life science tools based on the magnetic resonance technology.

The **Bruker CALID** comprises the Bruker Daltonics and primarily designs, manufactures and distributes life-science mass spectrometry instruments that can be integrated with other sample preparation or chromatography instruments.

BSI Nano (30.5%, up 11.4%): The Bruker Nano combines the Bruker AXS, Bruker Nano Surfaces, Bruker Nano Analytics and Bruker Elemental divisions, and designs, manufactures and distributes advanced X-ray instruments to determine the characteristics of matter and the three-dimensional structure of molecules.

Bruker Energy & Supercon Technologies (BEST) (10.1%, up 7.8%): This segment designs, manufactures and distributes superconducting materials, primarily metallic low temperature superconductors, for use in magnetic resonance imaging, nuclear magnetic resonance, fusion energy research and other applications.



Reasons To Buy:

- ▲ **BSI Nano Group Prospects Bright:** Bruker's NANO Group has been a solid performer till the pandemic hit the market. Despite the decline in the segment's revenues due to COVID-19-related disruptions globally and weakened industrial market demand, NANO analysis tools performed impressively in the first quarter. In fact, it is encouraging to note that orders in China and order patterns started recovering since April. Post the pandemic, the segment holds potential for a rebound.

Bruker's acquisitions of Anasys (in April 2018), JPK (in July), RAVE (April 2019) and Alicona are also progressing well.

The company has been working on a new Bruker NANO engineering final assembly and system test sensor in Penang, Malaysia, which is now operational. The company now has several Bruker NANO products that are being assembled and tested in Penang already, and by 2022, management expects more than \$50 million of revenues to be generated from Penang.

Overall, the Nano Group holds strong long-term potential on higher demand from industrial markets, semiconductors and growing academic markets.

- ▲ **High Potential of MALDI Biotyper:** Bacteria analysis and the identification of microorganisms to the species level and beyond is a key task in microbiology. Although current sequencing technologies provide more precise insights in biochemical analysis, they are still far too slow and expensive. Keeping this in mind, Bruker developed the MALDI Biotyper – a revolutionary approach for the analysis of microorganisms. The company expanded its MALDI Biotyper workflow's menu to include selected high-value resistance testing for clinical microbiology research.

We are also encouraged to note that demand for the MALDI Biotyper is increasing in applied markets, specifically for food, feed and beverage. Based on the recent developments witnessed in this product portfolio, management believes Bruker is poised to double its microbiology business over the next four to five years. Given an increase in the aging population, a higher number of individuals are likely to fall prey to illnesses, especially those caused by microorganisms. We believe MALDI Biotyper is thus positioned well to contribute significantly to the company's top line over time.

In the reported quarter, Bruker received an extra 25 MALDI Biotyper orders from China, including orders from Chinese Centers for Disease Control and Prevention (CDC) labs. This is particularly notable as the MALDI Biotyper is very important during the COVID-19 pandemic for ruling out or identifying bacterial, respiratory or other non-viral infections. This complements direct viral detection by other methods. Apart from China, the MALDI Biotyper recorded strong systems growth throughout Europe, especially in the U.K.

- ▲ **Strong Prospects in NMR Industry:** Nuclear Magnetic Resonance (NMR) spectroscopy is an analytical technique used in quality control and research to identify the content and purity of a sample as well as its molecular structure. Bruker BioSpin's products, which have specific application in structural proteomics, drug discovery, research and food and materials science fields, provide customers with the ability to ascertain the structure, dynamics, and function of specific molecules, such as proteins, as well as characterize and determine the composition of mixtures. A vast majority of Bruker BioSpin's customers include academic and government customers as well as pharmaceutical and biotechnology companies.

Although BioSpin Group revenues declined in the reported quarter due to delay in certain deliveries and installations due to customer closures and COVID-19 disruptions, it holds long-term potential. The company continues to invest in operational excellence like the multi-year Project 2020 which will consolidate two major BioSpin sites in Germany into a single, modern, lean and customer-oriented site. This is aimed at achieving higher productivity and capacity for growth along with an improved customer interface. The project is likely to be completed in 2021.

Further, Bruker announced completion of the installation of 1.2 gigahertz NMR system at the CERM of the University of Florence in Italy in April 2020.

- ▲ **Initiatives to Combat the Coronavirus Crisis:** Bruker has been making notable efforts to combat the coronavirus crisis. In Bremen, the company's Germany campus, Bruker is currently offering a pilot COVID-19 at work testing program for its factory workforce. The program, implemented in April, offers weekly company-paid voluntary COVID-19 PCR tests to employees in the factory.

Further, the company is providing critical technologies and solutions to help fight the crisis. The microbiology and infectious disease diagnostics portfolio has added a SARS-CoV-2 PCR test and the NMR and mass spec systems, which are used in critical disease, therapeutic and vaccine research.

Bruker entered into a distribution agreement with Primer Design from UK, a subsidiary of Novacyt SA, in March. Per the agreement, Bruker-Hain Diagnostics will distribute the CE-IVD-labeled genesig real-time PCR coronavirus (COVID-2019) assay, effective immediately.

- ▲ **Growth in Preclinical Imaging Market:** Preclinical imaging (PCI) can dramatically increase the efficiency and pace of drug discovery and development. Bruker offers advanced PCI solutions for a broad spectrum of application fields, such as cancer research, functional and anatomical neuroimaging, orthopedics, cardiac imaging and stroke models. Moreover, this division is experiencing increasing customer demand for higher-strength pre-clinical magnetic resonance imaging (MRI) system. In this regard, the company's collaboration with Champalimaud Foundation to develop the world's first 18 Tesla 11 cm bore, preclinical ultra-high field MRI system seems strategic.

The MRI system market, which is expected to see a CAGR of 5.9% between 2020 and 2027 from \$5.19 billion in 2019 (as per research firm Grand View Research), is encouraging. We believe this translates into a golden opportunity for Bruker to expand its foothold in the PCI market and earn higher profits from this division, going ahead. Currently, the company is investing vigorously in the PCI division to capture a

Bruker's recent acquisition of Hain Diagnostics expands its MALDI Biotyper solution product line. The company's collaboration with Champalimaud Foundation in the field of Preclinical Imaging seems strategic.

larger share in this fast-growing market space. In July, the company made an acquisition in support of its Project Accelerate- PMOD Technologies, a provider of research-use software for preclinical and molecular imaging applications, viz. PET/MR and PET/CT scanning.

In the first quarter of 2020, PCI revenues increased year over year on the back of favorable delivery timing early in the quarter.

▲ **Strong Solvency but Leveraged Balance Sheet:** Bruker exited the first quarter of 2020 with cash, cash equivalents and short-term investments of \$852 million compared with \$685 million at the end of 2019. Meanwhile, total debt came up to \$1.06 billion in the period, compared with \$861 million in the last-reported quarter. However, if we go by the company's current-year debt level of \$96 million, it is pretty low compared to the cash in hand. This is good news in terms of the solvency position of the company, at least during a year of economic downturn, implying that the company has sufficient cash for debt repayment.

Debt comparison with the industry is, however, favorable as, the industry's total debt of \$1.36 billion is much higher than the company's debt level.

The quarter's total debt-to-capital ratio of 0.53 represented an increase from 0.48 at the end of the fourth quarter of 2019. It indicates a leveraged balance sheet. However, this compares favorably with the total debt-to-capital ratio of the industry which stands at a higher level of 0.56.

In the first quarter of 2020, the company paid out \$6.2 million as dividends to common stockholders and also approved a quarterly cash dividend of 4 cents per share on the company's common stock. The current payout ratio stands at a very low level of 11.2%. Although, it represents a sequential increase from 10.2% from the end of the fourth quarter of 2019, this ratio itself indicates sustainability in terms of dividend payment amid the ongoing economic crisis. However, this compares unfavorably with the payout rate of the industry which stands at a further low level (4.4%).

Reasons To Sell:

▼ **Share Price Movement:** Over the past six months, Bruker has underperformed the industry it belongs to. The stock has lost 14.3% against the industry's 2.7% rise. Bruker ended the first quarter of 2020 with lower-than-expected results. Decline in revenues across all reporting segments as well as major geographies due to business disruptions is concerning. The contraction in both margins is concerning as well. A weak solvency with high leverage does not look encouraging.

The company's exposure to the foreign exchange fluctuations is a cause of concern as it conducts majority of its business in international markets. Further, a competitive landscape and macroeconomic woes, stemming from the coronavirus pandemic, pose persistent challenges to the company. Bruker suspended its 2020 financial guidance due to challenging business conditions created by the pandemic. Further its expectation of a more severe impact of the pandemic on second-quarter 2020 results is discouraging.

Currency fluctuations remain a drag on Bruker's top as well as bottom-line. Moreover, headwinds such as unfavorable economic conditions and competitive threats continue to pose concern.

▼ **Exposed to Currency Movement:** Bruker conducts 80% of its business in international markets. As a result, currency fluctuations continue to result in foreign currency transaction losses at the company. In the first quarter of 2020, changes in foreign currency had 1.1% negative impact on the company's revenues. In addition, currency fluctuations could cause the price of Bruker's products to be less competitive than its principal competitors' offerings.

▼ **Coronavirus Dampeners:** The coronavirus pandemic has been wreaking havoc on the economy and Bruker has also been affected. The company's first-quarter 2020 results reflected decline in both reported and organic revenues, primarily due to COVID-19-related disruptions, including approximately 30% year-over-year revenue decline in China. This led to year-over-year fall in the company's GAAP and non-GAAP operating income, operating margins and diluted earnings per share. Although Bruker anticipates a surge in life science, biopharma and basic medical research, as well as in infectious disease diagnostics due to the pandemic, a pronounced year-over-year revenue decline is likely to be registered in the second quarter of 2020.

The company has refrained from providing any guidance for 2020 amid the mayhem.

▼ **Macroeconomic Factors:** Many of the countries in which Bruker operates, including the U.S., Russia, and certain European nations, have experienced and continue to face uncertain economic conditions. Any company conducting business in these nations tend to be impacted by unfavorable changes in economic or political conditions herein, including adverse changes in interest rates or tax rates, volatile financial and commodity markets, contraction in the availability of credit in the marketplace, and changes in capital spending patterns.

Moreover, continued volatility and disruption of global financial markets might limit Bruker's customers' ability to obtain adequate financing to maintain operations and proceed with planned or new capital spending initiatives. This could lead to a drop in sales volume that could materially and adversely affect the company's operational results and cashflow. Management further anticipates that the persistence of an economic downturn may entail increased pricing pressure for Bruker's products and services, thus weighing on its operating margins and profitability.

▼ **Competitive Landscape:** Bruker faces substantial competition in a consolidating industry and expects competition in all of its markets to increase further. Bruker BioSpin competes with companies that offer magnetic resonance spectrometers, mainly JEOL and Oxford Instruments. In the field of preclinical imaging, Bruker BioSpin faces competitive threat from Perkin Elmer, Mediso, Trifol, MR Solutions, RS2D, Visualsonics (Fuji Film) and others. Bruker CALID's competitors in the life science markets and chemical and applied markets include Danaher, Agilent, GE-Healthcare, Waters, Thermo Fisher Scientific, Shimadzu, Hitachi and JEOL. BEST competes with Oxford Instruments and Luvata in low temperature superconducting materials. Unfortunately, a number of Bruker's peers have expanded their market share in recent years through business combinations. Other companies may also choose to enter Bruker's fields of operation in the near future.

Last Earnings Report

Bruker Q1 Earnings Miss Estimates, Guidance Suspended

Bruker delivered adjusted earnings per share of 14 cents in the first quarter of 2020, down 50% year over year. Moreover, the figure lagged the Zacks Consensus Estimate by 36.4%.

GAAP earnings per share for the quarter was 7 cents a share, marking a 65% decline from the year-earlier figure.

Revenues in Detail

Bruker registered revenues of \$424 million in the first quarter, down 8.1% year over year. Further, the top line lagged the Zacks Consensus Estimate by 1.2%.

Excluding a positive impact of 0.9% from acquisitions and a 1.1% negative impact from changes in foreign currency rates, the company recorded organic revenue decline of 7.9% and decline of 9.2% at constant exchange rate (CER) year over year.

The fall in reported and organic revenues resulted from disruptions arising from the coronavirus pandemic and a 30% year-over-year revenue decline in China.

Geographically, the United States witnessed a 6.9% decline in revenues in the reported quarter. Also, revenues in the Asia Pacific fell 9.9% and the Other category's revenues declined 10.9%. Further, Europe revenues fell 6.6% year over year.

Segments in Details

Bruker reports results under three segments — BSI Life Science (comprising BioSpin and CALID), BSI NANO and BEST.

In the first quarter, BioSpin Group revenues fell 5.4% from the year-ago quarter to \$120.9 million due to the delay in certain deliveries and installations due to customer closures and COVID-19 disruptions. This sub-segment also saw a significant revenue decline in China.

CALID revenues were down 5.2% year over year to \$140.5 million, primarily resulting from fall in molecular spectroscopy revenues. The decline more than offset the continued growth in microbiology and diagnostics and Life Science Mass Spectrometry.

Total **BSI Life Science** revenues were \$261.4 million, down 5.3% year over year.

Revenues in the **NANO** group fell 14.7% to \$120.1 million fueled by global disruptions due to the pandemic as well as lower industrial market demand.

Organic revenues and revenues at CER of the BSI segment (including BSI Life Science and BSI Nano Segments) declined 8.2% and 8.5% year over year, respectively.

In the first quarter, the company's **BEST** segment's revenues were \$46.2 million, indicating a fall of 3.3% year over year resulting from lower demand for superconductor toward the quarter-end.

However, organically, the BEST segment revenues declined 4.3% year over year, net of intercompany eliminations. At CER, the segment fell 4.7%.

Margin Trend

In the quarter under review, Bruker's gross profit fell 10.4% to \$192.3 million. Gross margin contracted 118 basis points (bps) to 45.3%.

Meanwhile, selling, general & administrative expenses rose 0.9% to \$121.2 million. Research and development expenses went up 4.5% year over year to \$48.5 million. Adjusted operating expenses of \$169.7 million rose 1.9% year over year.

Adjusted operating profit totaled \$22.6 million, reflecting a 53.1% decline from the prior-year quarter. Further, adjusted operating margin in the first quarter plunged 512 bps to 5.3%.

Financial Position

Bruker exited the first quarter with cash and cash equivalents, and short-term investments of \$851.7 million compared with \$684.9 million at the end of 2019. Long-term debt at the end of the first quarter was \$914.8 million compared with \$812.8 at the end of 2019.

At the end of the first quarter, cash flow from operating activities was \$35 million compared with \$14.2 million in the year-ago period.

2020 Guidance

Bruker, on Mar 27, suspended its 2020 financial guidance due to challenging business conditions created by the pandemic. However, the company expects to witness more pronounced negative impact on second-quarter 2020 results.

The company had expected to provide a business update during its first-quarter 2020 earnings conference call in early May 2020. However, it has not provided any guidance as of now.

Quarter Ending **03/2020**

Report Date	May 06, 2020
Sales Surprise	-1.25%
EPS Surprise	-36.36%
Quarterly EPS	0.14
Annual EPS (TTM)	1.43

Recent News

Bruker Launches Next-Generation PCR Assay: Jul 27, 2020

Bruker launched its FluoroType SARS-CoV-2 plus next-generation 6-plex polymerase chain reaction (PCR) assay for higher specific detection of the SARS-CoV-2, the COVID-19 causing virus.

Bruker Successfully Completes Installation at ETH Zürich: Jul 22, 2020

Bruker announced the successful installation and customer acceptance of the Avance NEO 1.2 GHz NMR system at the Department of Chemistry and Applied Biosciences of the Eidgenössische Technische Hochschule (ETH) Zürich in Switzerland.

Bruker Launches MALDI-2 PI Source: May 29, 2020

Bruker announced a major development in matrix-assisted laser desorption ionization (MALDI) with the launch of the world's first commercial MALDI-2 post-ionization (PI) source at the virtual ASMS 2020 Reboot conference. It is currently available as an option on the timsTOF flexX ESI/MALDI mass spectrometer.

Bruker Successfully Completes Installation at University of Florence: May 4, 2020

Bruker announced the successful installation and customer acceptance of the Avance NEO1.2 GHz NMR system at the CERM of the University of Florence.

Valuation

Bruker shares are down 14.9% in the year-to-date period and down 10.8% in the trailing 12-month periods. Stocks in the Zacks sub-industry are up 0.9% while the Zacks Medical sector rose 15.7% in the year-to-date period. Over the past year, the Zacks sub-industry is up 5.6% and sector is up 24.8%.

The S&P 500 index is up 0.8% in the year-to-date period and up 8% in the past year.

The stock is currently trading at 29.9X Forward 12-months earnings, which compares to 24.6X for the Zacks sub-industry, 25.9X for the Zacks sector and 22.6X for the S&P 500 index.

Over the past five years, the stock has traded as high as 32.7X and as low as 17X, with a 5-year median 23.8X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$46 price target reflects 31.7X forward 12-months earnings.

The table below shows summary valuation data for BRKR

Valuation Multiples - BRKR					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	29.89	24.64	25.87	22.61
	5-Year High	32.74	26.74	25.87	22.61
	5-Year Low	17.00	18.41	16.72	15.25
	5-Year Median	23.75	22.49	19.32	17.52
P/S F12M	Current	3.31	5.30	3.95	3.57
	5-Year High	3.86	5.92	3.95	3.57
	5-Year Low	1.66	3.63	2.32	2.53
	5-Year Median	2.63	4.91	3.14	3.02
P/B TTM	Current	7.23	12.12	5.92	4.43
	5-Year High	9.32	12.33	6.11	4.56
	5-Year Low	3.57	5.27	3.16	2.83
	5-Year Median	6.14	7.71	4.40	3.71

As of 07/28/2020

Industry Analysis Zacks Industry Rank: Top 2% (5 out of 253)



Top Peers

Company (Ticker)	Rec	Rank
Danaher Corporation (DHR)	Outperform	1
PerkinElmer, Inc. (PKI)	Outperform	1
Thermo Fisher Scientific Inc. (TMO)	Outperform	1
Agilent Technologies, Inc. (A)	Neutral	2
Hitachi Ltd. (HTHIY)	Neutral	3
MettlerToledo International, Inc. (MTD)	Neutral	2
Waters Corporation (WAT)	Neutral	3
General Electric Company (GE)	Underperform	5

Industry Comparison Industry: Instruments - Scientific				Industry Peers		
	BRKR	X Industry	S&P 500	MTD	PKI	WAT
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Neutral
Zacks Rank (Short Term)	2	-	-	2	1	3
VGM Score	F	-	-	D	D	C
Market Cap	6.69 B	209.04 M	22.47 B	21.09 B	12.59 B	13.84 B
# of Analysts	6	5	14	5	6	7
Dividend Yield	0.37%	0.00%	1.84%	0.00%	0.25%	0.00%
Value Score	D	-	-	D	F	D
Cash/Price	0.13	0.08	0.07	0.02	0.02	0.03
EV/EBITDA	19.08	11.52	13.04	27.59	24.24	18.45
PEG Ratio	3.08	4.37	2.97	4.47	1.69	7.32
Price/Book (P/B)	7.23	1.99	3.11	68.82	4.56	NA
Price/Cash Flow (P/CF)	20.77	13.24	12.07	32.68	18.01	20.06
P/E (F1)	37.70	32.58	21.52	41.83	26.39	27.56
Price/Sales (P/S)	3.29	3.10	2.35	7.08	4.23	6.07
Earnings Yield	2.65%	3.14%	4.34%	2.39%	3.79%	3.63%
Debt/Equity	1.04	0.79	0.76	4.94	0.79	-5.65
Cash Flow (\$/share)	2.09	1.81	7.01	26.99	6.27	11.14
Growth Score	D	-	-	C	C	C
Hist. EPS Growth (3-5 yrs)	14.52%	10.86%	10.85%	15.15%	11.33%	10.39%
Proj. EPS Growth (F1/F0)	-26.54%	-7.50%	-7.56%	-7.39%	4.43%	-9.80%
Curr. Cash Flow Growth	12.63%	7.99%	5.47%	7.99%	15.05%	-4.57%
Hist. Cash Flow Growth (3-5 yrs)	11.39%	8.45%	8.55%	9.94%	12.03%	5.07%
Current Ratio	2.60	2.05	1.31	1.77	1.84	2.41
Debt/Capital	50.92%	42.93%	44.41%	83.16%	44.25%	NA
Net Margin	8.69%	2.59%	10.44%	18.38%	9.87%	22.61%
Return on Equity	25.09%	1.66%	15.10%	134.62%	18.75%	-376.47%
Sales/Assets	0.78	0.78	0.54	1.09	0.46	0.88
Proj. Sales Growth (F1/F0)	-6.68%	0.00%	-1.97%	-6.36%	5.32%	-6.87%
Momentum Score	C	-	-	C	A	B
Daily Price Chg	-2.14%	-1.63%	-0.80%	-1.50%	-1.72%	-1.74%
1 Week Price Chg	-0.26%	-1.14%	0.37%	-0.60%	1.28%	-1.69%
4 Week Price Chg	6.56%	3.87%	3.64%	9.49%	15.19%	23.89%
12 Week Price Chg	15.75%	17.25%	11.56%	24.28%	24.98%	22.87%
52 Week Price Chg	-10.84%	10.49%	-3.92%	16.06%	29.09%	4.77%
20 Day Average Volume	531,388	94,128	1,867,919	97,802	950,588	631,099
(F1) EPS Est 1 week change	0.00%	0.04%	0.00%	0.00%	6.69%	0.07%
(F1) EPS Est 4 week change	0.73%	0.64%	0.21%	0.54%	12.73%	0.26%
(F1) EPS Est 12 week change	-14.36%	-1.59%	-1.29%	-4.45%	20.78%	1.26%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	0.09%	0.00%	12.53%	-0.82%

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 have an excellent 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	C
VGM Score	F

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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