

Thermo Fisher (TMO)

\$515.47 (As of 02/01/21)

Price Target (6-12 Months): **\$542.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 12/21/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:B

Value: C

Growth: B

Momentum: A

Summary

Thermo Fisher ended the fourth quarter as well as full-year 2020 with better-than-expected numbers. The company delivered an outstanding quarterly performance with strong organic growth leveraging on capacity to extend support amid pandemic. COVID-19 response revenue increased to \$3.2 billion in the quarter. The base business too grew 5%. In terms of end market, pharma and biotech registered growth on robust performance in bioproduction and pharma services. In diagnostics and healthcare, the company experienced exceptionally high demand for COVID-19 testing. A strong capital structure looks encouraging. Thermo Fisher has outperformed its industry in the past six months. However, the coronavirus outbreak has massively disrupted the global supply chain. Foreign currency fluctuations and competitive landscape are major downsides.

Price, Consensus & Surprise

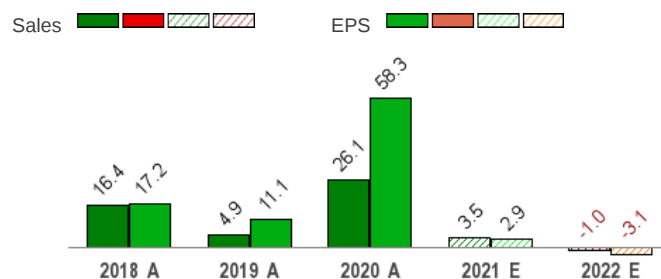


Source: Zacks Investment Research

Data Overview

52-Week High-Low	\$532.57 - \$250.21
20-Day Average Volume (Shares)	1,743,917
Market Cap	\$202.0 B
Year-To-Date Price Change	9.4%
Beta	0.81
Dividend / Dividend Yield	\$0.88 / 0.2%
Industry	Medical - Instruments
Zacks Industry Rank	Bottom 29% (180 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	28.8%
Last Sales Surprise	2.7%
EPS F1 Estimate 4-Week Change	1.6%
Expected Report Date	02/01/2021
Earnings ESP	20.7%

P/E TTM	31.8
P/E F1	25.6
PEG F1	2.1
P/S TTM	7.1

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	7,961 E	8,242 E	8,274 E	8,853 E	33,007 E
2021	8,454 E	8,548 E	8,160 E	8,538 E	33,344 E
2020	6,230 A	6,917 A	8,521 A	10,550 A	32,218 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$4.47 E	\$4.47 E	\$4.44 E	\$5.02 E	\$19.49 E
2021	\$5.27 E	\$5.08 E	\$4.72 E	\$4.98 E	\$20.12 E
2020	\$2.94 A	\$3.89 A	\$5.63 A	\$7.09 A	\$19.55 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 02/01/2021. The report's text and the analyst-provided price target are as of 02/02/2021.

Overview

Headquartered in Waltham, MA, Thermo Fisher Scientific is a scientific instrument maker and a world leader in serving science. In Nov 2006, Thermo Fisher Scientific, Inc. was formed through the merger of Thermo Electron Corporation with Fisher Scientific International Inc. On Feb 3, 2014, Thermo Fisher acquired Life Technologies Corporation.

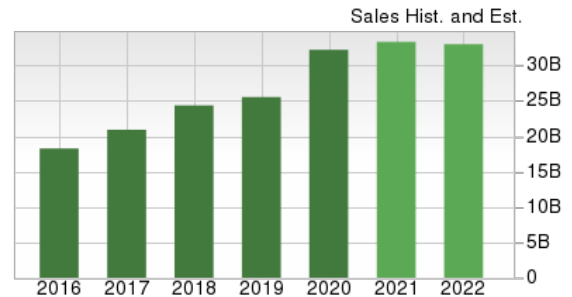
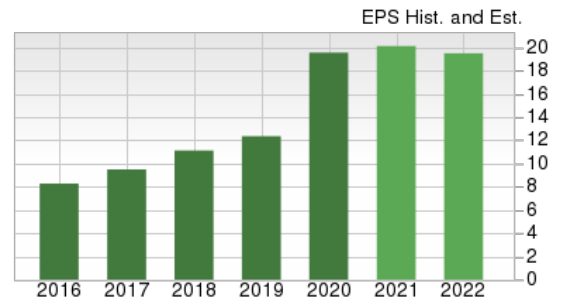
Following the acquisition, the new reporting segments are:

Life Sciences Solutions Segment: This segment (50.2% of total revenues in 2020) was added post the acquisition of Life Technologies. It incorporates majority of the former Life Technologies and Thermo Fisher's Biosciences businesses. In 2020, this business registered growth of 77% from 2019.

Analytical Instruments: Formerly known as Analytical Technology, this segment (15.8%) has been renamed in order to reflect the transfer of the bioprocess production business to the newly formed Life Sciences Solutions Segment. In 2020, this business registered decline of 7.2% from 2019.

Specialty Diagnostics (SD): This segment (25.6%), formed after the acquisition of Phadia, serves customers in healthcare and clinical laboratories with a portfolio of diagnostic test kits, reagents and instruments used to increase the speed and accuracy of diagnoses to improve patient care. In 2020, this business registered growth of 44% from 2019.

Laboratory Products and Services (LPS): This segment (10.4%) serves laboratory customers with equipment and consumables that improve productivity and a range of BioPharma outsourcing services. This segment also includes the company's research and safety market customer channels. Post-acquisition, Thermo Fisher's Global Chemicals business has moved to the Laboratory Products and Services Segment. In 2020, this business registered growth of 28% from 2019.



Source: Zacks Investment Research

Reasons To Buy:

▲ **Share Price Performance:** Thermo Fisher has outperformed its industry in the past six months. The stock improved 23% compared with the industry's 6.5% rise. Thermo Fisher ended the fourth quarter as well as full-year 2020 with better-than-expected numbers. The company delivered an outstanding quarterly performance with organic growth of 51%, leveraging on its capacity to extend support amid the pandemic. COVID-19 response revenue increased to \$3.2 billion in the fourth quarter bringing the full year contribution to \$6.6 billion driven by testing-related products and instruments. The base business too grew 5% organically registering another quarter of sequential improvement. Further, for 2020, the company generated \$500 million of revenue from COVID-19-related vaccines and therapies support.

With several takeovers including Advanced Bioprocessing buyout from BD and Patheon, Thermo Fisher is expanding inorganic growth profile. The company's strong focus on emerging market is also encouraging.

In terms of end market, pharma and biotech registered 25% growth in the fourth quarter on robust performance in bioproduction, pharma services, biosciences, and research and safety market channel businesses. In diagnostics and healthcare, the company experienced exceptionally high demand for COVID-19 testing and was able to deliver 200% growth. Academic and government grew in the high single-digits as customers across the globe ramped up activity. The company saw particularly good growth across its chromatography and mass spectrometry businesses. In industrial and applied end market, following a series of dull quarters, the company returned to growth in the fourth quarter and grew in the low single-digits.

▲ **COVID-19-Related Progress:** In 2020, Thermo Fisher's COVID-19 testing revenue continued to accelerate as customer demand for sample preparation, PCR solutions and viral transport media remained very robust. This resulted in generating \$6.6 billion of COVID-19 response revenues. In response to the pandemic, the company gained regulatory approval to launch the TaqPath COVID-19 combo kit in March, providing gold standard PCR-based test for customers at an unprecedented scale. The company also significantly expanded portfolio of COVID-19-related products, including Amplitude solution for high-throughput PCR-based testing and TaqCheck PCR test for asymptomatic health surveillance. In addition, it launched a number of advanced products across base business to strengthen leading positions in analytical instruments, biosciences and bioproduction.

According to the company, its COVID-19 testing has reached at an unprecedented level, creating a market-leading molecular diagnostics business in just a few months to support hundreds of millions of PCR tests around the world. The company is also actively engaged in projects to help, develop and produce vaccines and therapies. In 2020 this led to \$500 million in COVID-19 vaccine therapy revenue and it expects this to increase to \$1 billion in 2021.

▲ **Strength in End Markets:** In fourth-quarter 2020, Thermo Fisher witnessed strength in all four of its end markets categorized either by customer type or geography. The pharma and biotech space was essentially unaffected by the pandemic in the quarter and the company recorded 25% growth. The combination of strong market fundamentals and pandemic-related activities led to strength across all part of this end market, particularly bioproduction, pharma services, biosciences and research and safety market channel. In diagnostics and healthcare, Thermo Fisher delivered 200% growth. This end market benefited from the surging revenue for COVID-19 testing as customer demand for sample preparation, PCR solutions and viral transport media remained very robust. Academic and government grew in the high single-digits as customers across the globe ramped up activity. The company saw particularly good growth across its chromatography and mass spectrometry businesses. In industrial and applied end market, following a series of dull quarters, the company returned to growth in the fourth quarter and grew in the low single-digits. The company's electron microscopy business returned to growth in this quarter.

▲ **Bioproduction Business on the Rise:** Thermo Fisher's Gibco Cell Culture for Bioprocessing, Chromatography and Protein Purification are already in high demand. The company has of let made a series of development to augment Bioprocessing growth since then. In 2019, the company launched a scalable bioreactor workflow called Thermo Scientific TruBio Discovery Automation System. This apart, the company has made another major investment within this field with the acquisition of Brammer Bio, a viral vector manufacturing firm, helping pharma and biotech customers provide breakthrough gene and cell therapies to patients with rare diseases. Earlier to that, the purchased Advanced Bioprocessing business from BD which is expected to significantly expand the company's Life Sciences Solutions line of offerings.

In the fourth quarter of 2020, in China, the company announced the formation of a joint venture to establish a biological drug development and manufacturing facility in Hangzhou. Earlier in 2020, the company expanded its center of excellence in Suzhou, China, by opening a new bioproduction factory for manufacturing single-use technologies to meet demand for biologics in the Asia-Pacific region. Earlier to this, it formed an alliance with global biotech company CLS to help meet high demand for biologics. Under a long-term agreement, Thermo Fisher will also take over CSL's state-of-the-art biologics facility in Switzerland.

▲ **Focus on International Markets:** Thermo Fisher boasts strong international operations and has witnessed consistent growth in the Asia-Pacific and emerging markets. The company plans to continue to strengthen its foothold in emerging markets, such as China and India, and to translate this success to other high-priority opportunities in regions such as South Korea, Russia and Brazil. In the fourth quarter of 2020, all international region delivered robust year-over-year growth. Europe grew approximately 50%, Asia Pacific grew 20% which included 30% growth in China. The rest of the world grew approximately 50%.

Recently in Dec 2020, announced its plans to further expand its footprint in North America and Europe for sterile drug product development and commercial manufacturing of critical medicines, therapies and vaccines. Among the Thermo Fisher sites currently being expanded are: Greenville, NC.; Swindon, U.K.; and Ferentino and Monza, Italy. These investments will add 15 development and cGMP commercial production lines. In addition, the company recently announced significant projects in Asia-Pacific, including a new sterile manufacturing facility in Singapore and a new integrated biologics and sterile drug development and manufacturing site in Hangzhou, China.

The same month, the company announced the expansion of its pharma services footprint with two new state-of-the-art facilities in Germany. The new sites will bring much-needed clinical supply chain continuity and specialized cold chain and cryogenic expertise across Europe and

globally. This decision came on the fact of Europe's growing prospects in terms of clinical supply chain and logistics. This market in Europe is expected to double by 2025 and more than triple by 2030. Approximately 4,000 clinical trials are conducted each year in Europe, which is 20% of the global clinical trials market.

▲ **Strong Liquidity, Solvency and Capital Structure:** Thermo Fisher is well capitalized having exited the third quarter of 2020 with cash and cash equivalents of \$7.54 billion compared with \$5.82 billion in the second quarter. The company finished the quarter with approximately \$21.09 billion of total debt compared to \$21.31 billion at the end of the second quarter.

Debt comparison with the industry is, however, unfavorable as industry's total debt of \$2.93 billion, stands much lower to the company's debt level.

Debt-to-capital at the end of the third quarter stands at 39.9%, a sequential decline from 40.9% in the second quarter. This compares unfavorably with the total debt-to-capital of the industry, which stands at a lower level of 33%.

The times interest earned for the company stands at 10.8%, representing a sequential increase from 7.9% at the end of the second quarter. This, however, compares favorably with the times interest earned for the industry which stands at a lower level (7.2%).

In terms of capital deployment, the company has been using its free cash to make strategic acquisitions and has been rewarding its shareholders through share repurchases and dividend. Thermo Fisher expressed interest in acquisitions in the field of mass spectrometry, bioproduction, specialty diagnostics, at an attractive valuation.

In the third quarter, Thermo Fisher returned approximately \$90 million to shareholders through dividends. In 2020, the company expects to return approximately \$350 million of capital to shareholders through dividends. The company's current payout ratio stands at a very low level of 5.3%, indicating sustainability of its current dividend payment. It also remains lower than each of the trailing four quarters' dividend payout ratio. However, this compares favorably with the payout rate of the industry which stands at a higher level (6.1%).

Reasons To Sell:

- ▼ **Exposure to Foreign Currency:** Thermo Fisher derives more than 50% of its revenues from the international market, which exposes it to fluctuations in foreign currency. In past several years, the company's earnings were affected significantly on headwind from foreign exchange.
- ▼ **Economic Uncertainty Continues to Hamper Growth:** Thermo Fisher's business depends heavily on general economic conditions. The company makes scientific instruments which are primarily of big ticket sizes and non-life-sustaining in nature. The company has been witnessing headwinds in the government and academic markets. Moreover, many countries in Europe are also going through a tough time that might impact their academic budgets. We remain cautious since growth could further moderate if the economic scenario worsens.
- ▼ **Tough Competitive Pressure:** On account of its diversified portfolio, Thermo Fisher faces different types of competitors including a broad range of manufacturers and third-party distributors. The competitive landscape is quite tough with changing technology and customer demands that require continuing research and development.

Unfavorable macroeconomic conditions continue to weigh heavily on Thermo Fisher's stocks. Also competitive headwinds and currency fluctuations continue to pose a threat on the stock's value.

Last Earnings Report

Thermo Fisher Beats on Q4 Earnings on Growth In All Lines

Thermo Fisher's fourth-quarter 2020 adjusted earnings per share of \$7.09 beat the Zacks Consensus Estimate by 3.4%. The figure surged 99.7% year over year. The adjusted number excludes certain non-recurring expenses including asset amortization costs and certain restructuring costs.

On a reported basis, earnings per share were \$6.24 compared with \$2.49 a year ago.

Significant COVID-19 led business expansion as well as the company's base business growth contributed to such a stunning bottom-line performance.

For the full year, adjusted earnings were \$19.55 per share, reflecting a 58.3% rise from the year-ago period. It also beat the Zacks Consensus Estimate by 1.1%.

Revenues in the quarter under review grossed \$10.55 billion, up 54.5% year over year. The top line exceeded the Zacks Consensus Estimate by 2.6%.

In the fourth quarter, the company generated \$3.2 billion of COVID-19 response revenues and reported accelerated growth in its base business.

Total revenues for 2020 were \$32.2 billion, a 26.3% rise from the year-ago period. This came ahead of the Zacks Consensus Estimate by 4.3%.

Quarter in Detail

Organic revenues in the reported quarter grew 51% year over year. Favorable currency translation increased revenues by 3%.

Thermo Fisher operates under four business segments: Life Sciences Solutions, Analytical Instruments, Specialty Diagnostics, and Laboratory Products and Services.

Revenues at the Life Sciences Solutions segment (41.4% of total revenues) improved 138% year over year to \$4.37 billion while Analytical Instruments Segment sales (15.5%) rose 8% to \$1.64 billion.

Revenues at the Laboratory Products and Services segment (34.3%) rose 28.8% to \$3.62 billion. The Specialty Diagnostics segment (18.6%) recorded 109% year-over-year rise in revenues to \$1.97 billion.

Gross margin of 53.9% in the fourth quarter expanded 761 basis points (bps) year over year on 79.9% rise in gross profits. Adjusted operating margin for the quarter came in at 33.3%, reflecting an expansion of 858 bps.

The company exited 2020 with cash and cash equivalents of \$10.33 billion compared with \$7.54 billion at the end of the third quarter. Full-year net cash provided by operating activities was \$8.29 billion compared with \$4.97 billion a year ago.

2021 Guidance

For the full year, the company expects to deliver revenues of \$35.1 billion indicating reported revenue growth of 9%. It estimates adjusted earnings per share of \$21.62 for 2021, an 11% growth from the year-ago period. The Zacks Consensus Estimate for adjusted earnings per share is pegged at \$20.12 on revenues of \$33.34 billion.

Quarter Ending	12/2020
Report Date	Oct 21, 2020
Sales Surprise	2.67%
EPS Surprise	28.83%
Quarterly EPS	7.09
Annual EPS (TTM)	16.01

Recent News

Introduces First T-Cell Medium for Allogeneic Cell Therapy: Jan 27, 2021

Thermo Fisher has launched a new medium for the development and expansion of human T lymphocytes (T-cells) for cell therapy developers using allogeneic workflows. Known as Gibco CTS OpTmizer Pro Serum Free Media (SFM), this is the first-of-its-kind media-solution that targets the metabolism of healthy donor cells, making it ideally suited for use in the production of allogeneic, off-the-shelf cell therapies.

Acquires Novasep's Viral Vector Manufacturing Business: Jan 15, 2021

Thermo Fisher announced the completion of the acquisition of Henogen S.A., Groupe Novasep SAS' (Novasep) viral vector manufacturing business in Belgium for approximately €725 million in cash.

Acquires Phitonex to Advance in Cell Therapy: Dec 31, 2020

Thermo Fisher announced the completion of the acquisition of Phitonex, a Durham, North Carolina-based company that has pioneered a spectral dye platform for high-resolution biology applications designed to accelerate research and development in cell therapy, immuno-oncology and immunology research.

Expands Clinical Supply Chain in Europe: Dec 15, 2020

Thermo Fisher Scientific has expanded its pharma services footprint with two new state-of-the-art facilities in Rheinfelden and Weil am Rhein, Germany. The new sites will bring clinical supply chain continuity and specialized cold chain and cryogenic expertise across Europe and globally.

Receives CE Mark for IgG Antibody Test: Dec 8, 2020

Thermo Fisher's OmniPATH Combi SARS-CoV-2 IgG ELISA test secured CE Mark. The test is intended for the quantitative measurement of immunoglobulin G (IgG) antibodies raised against the spike protein of the SARS-CoV-2 virus to aid clinicians in identifying patients with an immune response pre- and post-vaccination.

Releases New CE-Marked COVID-19, Flu A/B, RSV Combo Kit: Dec 7, 2020

Thermo Fisher announced CE-marking of its TaqPath COVID-19, Flu A/B, RSV Combo Kit for the in vitro diagnosis of SARS-CoV-2, influenza A/B and respiratory syncytial virus (RSV) A/B infections.

Introduces Electron Microscope, Extends Cryo-EM Suite: Nov 18, 2020

Thermo Fisher announced the latest Tundra Cryo Transmission Electron Microscope (Cryo-TEM), an instrument that extends cryo-electron microscopy (cryo-EM) to more scientists by delivering ease of use at an affordable price.

Introduces Latest SEM: Nov 10, 2020

Thermo Fisher introduced the Axia ChemiSEM, which is a cost-effective floor-model scanning electron microscope (SEM) that takes materials micro-structural analysis and defect discovery to a new level of speed and simplicity.

Thermo Fisher, Innoforce Signs JV: Nov 6, 2020

Thermo Fisher signed a joint venture (JV) agreement with bioinnovation-enabling company, Innoforce, to establish a new pharma services facility in Hangzhou, China, for integrated biologics and sterile drug development and manufacturing. The new facility is expected to be completed in 2022.

Thermo Fisher, BATL Enters Collaboration: Nov 4, 2020

Thermo Fisher have entered into a collaborative agreement with the Biopharmaceutical Analysis Training Laboratory (BATL) at Northeastern University to advance analytical capabilities and drive innovation across the biopharmaceutical industry in areas including personalized medicine, monoclonal antibodies and gene and cell therapies.

Valuation

Thermo Fisher shares are up 23.1% in the six-month period and up 61.9% in the trailing 12-month periods. Over the six-month period, the Zacks sub-industry is up 7.3% and sector is up 5.7%. Over the past year, the Zacks sub-industry is up 27.9% and sector is up 8.1%.

The S&P 500 index is up 15.8% in the six-month period and up 17.9% in the past year.

The stock is currently trading at 25.7X Forward 12-months earnings, which compares to 36.7X for the Zacks sub-industry, 22.8X for the Zacks sector and 22.2X for the S&P 500 index.

Over the past five years, the stock has traded as high as 30.1X and as low as 15.1X, with a 5-year median 19.3X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$542 price target reflects 26.9X forward 12-months earnings.

The table below shows summary valuation data for TMO.

Valuation Multiples - TMO			
Stock	Sub-Industry	Sector	S&P 500

P/E F12M	Current	25.70	36.72	22.84	22.23
	5-Year High	30.06	41.61	22.86	23.80
	5-Year Low	15.09	22.91	15.90	15.30
	5-Year Median	19.30	29.67	19.13	17.83
P/S F12M	Current	6.13	4.84	2.85	4.40
	5-Year High	6.62	4.84	3.17	4.40
	5-Year Low	2.75	2.56	2.26	3.20
	5-Year Median	3.70	3.33	2.84	3.68
P/B TTM	Current	6.42	4.90	4.52	6.45
	5-Year High	6.57	5.00	5.11	6.58
	5-Year Low	2.28	2.80	3.02	3.73
	5-Year Median	3.39	4.10	4.36	4.95

As of 02/01/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 29% (180 out of 253)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Danaher Corporation (DHR)	Outperform	2
PerkinElmer, Inc. (PKI)	Outperform	2
BioRad Laboratories, Inc. (BIO)	Neutral	3
Bruker Corporation (BRKR)	Neutral	3
DexCom, Inc. (DXCM)	Neutral	4
Luminex Corporation (LMNX)	Neutral	2
Quidel Corporation (QDEL)	Neutral	3
Illumina, Inc. (ILMN)	Underperform	5

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

Industry Comparison Industry: Medical - Instruments				Industry Peers		
	TMO	X Industry	S&P 500	DHR	ILMN	LMNX
Zacks Recommendation (Long Term)	Neutral	-	-	Outperform	Underperform	Neutral
Zacks Rank (Short Term)	3	-	-	2	5	2
VGM Score	B	-	-	C	F	D
Market Cap	202.01 B	322.54 M	26.43 B	168.96 B	62.26 B	1.31 B
# of Analysts	10	2	13	9	7	3
Dividend Yield	0.17%	0.00%	1.47%	0.30%	0.00%	1.42%
Value Score	C	-	-	D	D	C
Cash/Price	0.04	0.10	0.06	0.04	0.05	0.24
EV/EBITDA	30.74	-3.58	14.74	27.16	44.21	65.63
PEG F1	2.05	4.06	2.38	2.48	10.86	NA
P/B	6.35	5.10	3.59	4.25	13.25	2.52
P/CF	20.16	26.03	14.94	24.89	53.87	68.23
P/E F1	25.62	40.57	19.57	32.37	76.05	31.21
P/S TTM	7.09	6.74	2.86	7.58	19.22	3.30
Earnings Yield	3.95%	-0.96%	4.98%	3.09%	1.32%	3.20%
Debt/Equity	0.55	0.06	0.68	0.53	0.14	0.39
Cash Flow (\$/share)	25.57	-0.14	6.83	9.71	8.23	0.43
Growth Score	B	-	-	B	F	B
Historical EPS Growth (3-5 Years)	15.29%	7.61%	9.46%	5.52%	18.99%	-25.19%
Projected EPS Growth (F1/F0)	4.07%	34.58%	12.64%	16.43%	27.10%	103.01%
Current Cash Flow Growth	39.75%	5.75%	4.97%	54.56%	13.10%	-57.32%
Historical Cash Flow Growth (3-5 Years)	10.08%	10.34%	8.19%	11.93%	16.75%	-15.21%
Current Ratio	2.93	3.25	1.38	1.86	3.88	6.45
Debt/Capital	39.86%	9.67%	41.49%	34.76%	12.41%	27.98%
Net Margin	17.12%	-21.88%	10.61%	16.37%	19.70%	4.60%
Return on Equity	21.35%	-19.83%	15.23%	13.64%	15.93%	3.75%
Sales/Assets	0.47	0.51	0.50	0.31	0.44	0.59
Projected Sales Growth (F1/F0)	5.98%	19.57%	5.74%	12.60%	24.06%	15.47%
Momentum Score	A	-	-	B	D	F
Daily Price Change	1.13%	0.30%	1.27%	1.64%	3.97%	3.81%
1-Week Price Change	-0.95%	-2.99%	-4.02%	-0.08%	4.97%	-1.68%
4-Week Price Change	9.25%	13.52%	1.41%	8.30%	20.56%	19.95%
12-Week Price Change	6.28%	27.18%	5.46%	3.41%	45.04%	31.00%
52-Week Price Change	61.92%	24.35%	8.48%	50.15%	51.11%	25.31%
20-Day Average Volume (Shares)	1,743,917	244,620	2,080,548	2,739,761	1,217,371	355,090
EPS F1 Estimate 1-Week Change	0.78%	0.00%	0.00%	2.86%	0.14%	0.00%
EPS F1 Estimate 4-Week Change	1.60%	0.00%	0.30%	4.85%	-19.00%	0.00%
EPS F1 Estimate 12-Week Change	5.96%	0.00%	1.44%	6.28%	-19.48%	3.15%
EPS Q1 Estimate Monthly Change	4.93%	0.00%	0.12%	7.48%	-19.32%	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	A
VGM Score	B

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

Disclosures

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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 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.