

Neogen Corporation (NEOG)

\$46.04 (As of 06/30/21)

Price Target (6-12 Months): **\$49.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/05/21)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:D

Value: D

Growth: D

Momentum: D

Summary

Over the past six months, NEOGEN has outperformed its industry. NEOGEN's international performance was impressive, despite the challenging global business climate in the fiscal third quarter of 2021. The acquisitions of international distributors and Megazyme also contributed to growth. Expansion of both margins looks encouraging. NEOGEN's third quarter revenues were better-than-expected. Notably, the company witnessed growth in its segmental performance in fiscal third-quarter, chiefly boosted by enhanced sales of cleaners and disinfectants to meet the requirements created by the coronavirus pandemic. Yet, lower-than-expected earnings during the quarter does not bode well. Drop in revenues from Brazil due to foreign exchange translations and rise in operating cost are concerning. Stiff competition and currency headwinds are also worrying.

Data Overview

52-Week High-Low	\$48.85 - \$33.30
20-Day Average Volume (Shares)	327,187
Market Cap	\$4.9 B
Year-To-Date Price Change	16.1%
Beta	0.50
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Medical - Products
Zacks Industry Rank	Bottom 31% (172 out of 251)

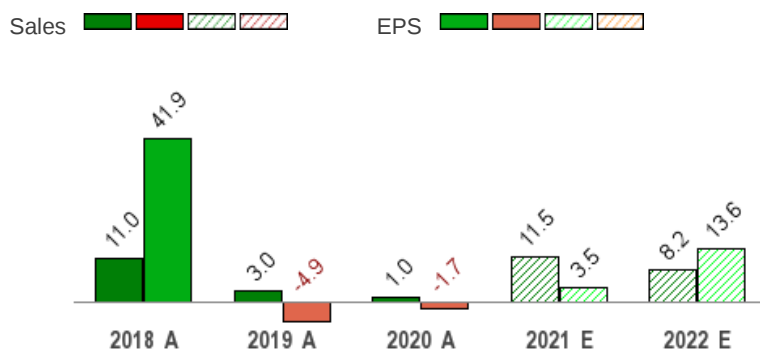
Last EPS Surprise	-7.4%
Last Sales Surprise	9.0%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	07/20/2021
Earnings ESP	0.0%

P/E TTM	39.7
P/E F1	68.7
PEG F1	6.9
P/S TTM	11.0

Price, Consensus & Surprise



Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	118 E	124 E	126 E	135 E	504 E
2021	109 A	115 A	117 A	125 E	466 E
2020	101 A	108 A	100 A	109 A	418 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$0.15 E	\$0.17 E	\$0.15 E	\$0.19 E	\$0.67 E
2021	\$0.15 A	\$0.15 A	\$0.13 A	\$0.16 E	\$0.59 E
2020	\$0.14 A	\$0.16 A	\$0.12 A	\$0.16 A	\$0.57 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 06/30/2021. The report's text and the

analyst-provided price target are as of 07/01/2021.

Overview

NEOGEN Corporation develops and markets food and animal safety products. The company's Food Safety Division markets culture media and diagnostic test kits to detect foodborne bacteria, natural toxins, food allergens, drug residues, plant diseases and sanitation concerns.

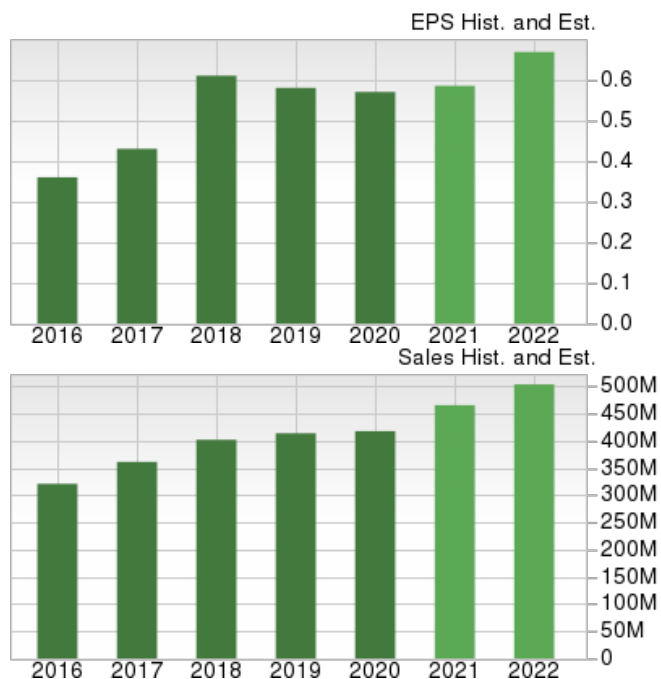
NEOGEN operates under two business segments — Food Safety and Animal Safety.

Food Safety (50.9% of total revenues in 2020, down 0.4% from fiscal 2020): The products in the segment include tests for Mycotoxins, Food allergens, Dairy antibiotics, Foodborne pathogens, Spoilage microorganisms, Sanitation monitoring, Dehydrated culture media and Seafood contaminants.

Animal Safety (49.1%, up 2.4%): The division is engaged in the development, manufacture, marketing and distribution of veterinary instruments, pharmaceuticals, vaccines, topicals, diagnostic products, rodenticides, cleaners, disinfectants, insecticides and genomics testing services for the worldwide animal safety market. The majority of these consumable products are marketed through a network of national and international distributors, as well as a number of large farm supply retail chains in the United States and Canada.

The animal safety products include Veterinary instruments, Veterinary pharmaceuticals, Veterinary biologics, Veterinary OTC products, Rodenticides, Cleaners and disinfectants, Insecticides, Animal genomics services and Life sciences.

NEOGEN acquired the assets of the Edmonton-based Delta Genomics Centre, an animal genomics laboratory in Canada, in January 2019. Delta's laboratory operations were renamed NEOGEN Canada post the acquisition, thus, becoming NEOGEN's sixth animal genomics laboratory. This is intended to help accelerate growth of NEOGEN's animal genomics business throughout Canada.



Reasons To Buy:

▲ **Share Price Performance:** Shares of NEOGEN have outperformed the industry over the past six months. The stock has gained 17.4% compared with the industry's 4.2% rise. NEOGEN witnessed growth in its segmental performance, primarily boosted by enhanced sales of cleaners and disinfectants to meet the requirements created by the coronavirus pandemic. NEOGEN's international performance was impressive, despite the challenging global business climate. The acquisitions of international distributors and Megazyme, a food-quality diagnostics company, is an added advantage. Expansion of both margins looks encouraging.

▲ **Long-Term Growth Strategy Progresses Well:** NEOGEN in its mission to be the leading company in the development and marketing of solutions for food and animal safety follows a vision or a growth strategy consisting of the following elements: increasing sales of existing products; introducing new products and product lines; expanding international sales; and acquiring businesses and forming strategic alliances.

NEOGEN is well positioned to gain from its extensive global foothold and diverse product mix. The company's long-term growth strategy looks impressive.

Going by the first leg of the growth strategy, NEOGEN is progressing well in terms of picking the right growth markets and gaining bigger share of those markets. In terms of the second leg of the growth strategy, NEOGEN continues well with its strong R&D activities. With respect to the third leg of international growth, the company is expanding well in other geographies.

Regarding the fourth leg of acquisitions and forming strategic alliances, NEOGEN reported that in the third quarter of 2021 acquisitions of international distributors and the acquisition of Megazyme, a food-quality diagnostics company, contributed to overall growth.

In fiscal 2020, the company generated \$3 million revenues from acquisitions. Internationally, the company is currently integrating the acquisitions it completed in the past 34 quarters. Growths from these acquisitions were above the company's expectation generating \$1.9 million for the year.

▲ **Product Launches:** NEOGEN, of late, has been focusing on product launches to strengthen its business on a global scale.

In February 2021, NEOGEN relaunched its popular ThyroKar (levothyroxine sodium tablets), USP, which are approved by the FDA for replacement therapy for diminished thyroid function in dogs. During the same month, the company launched Early Warning COVID-19 Testing for wastewater.

Earlier, in January 2021, NEOGEN launched a faster, easier test - Reveal Q+ to detect aflatoxin M1, a known cancer-causing toxin of concern to the global dairy industry.

In December 2020, the company developed new Reveal tests for horse, beef, sheep and poultry provide accurate results in a span of few minutes to determine meat speciation in raw meat and environmental samples. The same month, the company announced the development of two new TMB substrates, K-Blue Advanced Plus and K-Blue Select, thus expanding the popular K-Blue product line to meet the evolving customer requirements. Further in the month, NEOGEN launched the Igenity Canine Wellness, which is a preventative care DNA screening tool for veterinarians.

In November 2020 NEOGEN launched COMPANION Foaming Antibacterial Hand Soap, which is highly effective against harmful bacteria and is skin friendly.

The company, in October 2020, launched the Igenity Feeder, which is a DNA tool designed to assist cattle producers in the stocker and background phase to rank and manage feeder cattle according to their genetic potential for carcass traits. The same month, NEOGEN launched Reveal 3-D Food Buffer, which is a new food extraction method that expands the capabilities of select Reveal 3-D food allergen tests to include the direct testing of food products.

▲ **Animal Safety Business Grows Well:** In the fiscal third quarter, NEOGEN's Animal Safety segment recorded a 18% revenue uptick driven by sales of the rodenticides products as well as increased consumer expenditures on companion animals, especially dogs and cats. Rodenticides sales increased 79% in the third quarter due to ongoing increased rodent pressure across the United States, primarily in the Pacific Northwest. Insecticide sales increased 14% aided in part by sales from the StandGuard product line purchased in July of 2020.

Animal care products sold out of the Lexington, Kentucky based manufacturing distribution center such as small animal supplements, wound care and vitamin injectables increased 45% and vet instruments including needles and syringes rose 15% for reported the quarter. These increases were primarily the result of increased sales to the largest U.S. distributors into animal protein markets.

Revenues in the genomics business through the Animal Safety segment grew 9% backed by gains in beef and companion animal testing in Australia and commercial beef and beef association markets in the United States and Canada. Worldwide genomics revenues increased 10% with strong growth in China, Australia and North American beef markets.

▲ **Food Safety Sales Growth Continues:** NEOGEN continues to see rising revenues from the Food Safety business. For fiscal 2021 third quarter, the company's Food Safety revenues reflected 15.7% (up 11% organically) year-over-year growth. The acquisitions of international

distributors and Megazyme — a food-quality diagnostics company — contributed to growth. The segment's increase was led by a 14% improvement in sales of its diagnostic test kits to detect natural toxins in food and animal feed, including increases in sales of its aflatoxin test kits (up 25%).

In August 2020, NEOGEN had announced that the U.S. Environmental Protection Agency has validated the effectiveness of the company's BioSentry 904 Disinfectant against the coronavirus-causing SARS-CoV-2 virus, when used per the revised label instructions. The same month, the company received a patent from the U.S. Patent and Trademark Office, covering materials that increase the water-based binding and extraction of toxins from grains and other foods.

▲ **International Business Holds Solid Ground:** NEOGEN's international business in the third quarter 2021 was quite impressive. The company's international business increased 16% in the reported quarter, partly owing to two months of sales from the Megazyme acquisition.

Further, NEOGEN Australasia's quarterly revenues rose 73% in local currency, aided in part by the February 2020 acquisition of a food safety distributor. NEOGEN's U.K. business increased 4% in pounds as lower economic activity caused by the pandemic resulted in sluggish sales performance across the organization. However, this increase was 9% when converted to U.S. dollars.

NEOGEN Brazil's revenues rose 12% in local currency on strength in diagnostic kit sales, but declined 11% after translation of the Brazilian real to U.S. dollar.

▲ **Strategic Partnerships Deals:** Of late, NEOGEN inked a series of partnership deals, which is expected to aid in the company's segmental growth as well as international expansion. In January 2021, NEOGEN acquired Ireland-based Megazyme, Ltd. — a major supplier of analytical solutions used by quality control laboratories in the global food and beverage industries. The acquisition of Megazyme provides NEOGEN a natural and complementary expansion of food diagnostics portfolio at the same time aligning with an aim to provide comprehensive leading solutions to global food producers.

The company, in November 2020, partnered with Transnetyx, Inc. to collaborate on distribution and advancement of the miniMUGA genotyping array (Mouse Universal Genotyping Array).

The company, in September 2020, entered into a sponsorship agreement with the National FFA to support the agricultural organization and help fight the spread of COVID-19.

In August 2020, NEOGEN announced the completion of the previously announced acquisition of the U.S. (including territories) rights to Elanco's StandGuard Pour-on for horn fly and lice control in beef cattle, and related assets.

Other notable partnerships of NEOGEN include the one with Ripe Technology (a food industry blockchain pioneer) and Gencove signed in February and January 2020.

▲ **Strong Solvency and Capital Structure:** NEOGEN exited the third quarter of fiscal 2021 with cash and investments of \$353 million compared with \$391 million at the end of the second quarter of fiscal 2021. Notably, the company does not have any kind of debt on its balance sheet. This apparently indicates a strong solvency position for the company.

Reasons To Sell:

- ▼ **Expensive Valuation:** NEOGEN's P/E (F12M) ratio is expensive in comparison to the broader industry. The company is currently trading at a forward P/E (F12M basis) ratio of 67.4 for the past six months, whereas the current P/E ratio (F12 basis) for the industry it belongs to is 25.5.
- ▼ **Coronavirus Concern:** Over the past few months, the coronavirus pandemic has wreaked havoc on the company's stock. NEOGEN continues to be adversely impacted due to the pandemic-led global market disruptions, especially in the food industry in some of its important end markets in the United States and Europe due to the lockdowns and social-distancing restrictions still in place. NEOGEN's cleaner and disinfectant sales declined 9% in third-quarter 2021, resulting from lower sales of water treatment products due to COVID restrictions.
- ▼ **Currency Headwinds:** In the first quarter of fiscal 2021, NEOGEN's international business was significantly impacted by unfavorable currency movements. When the magnitude of the pandemic became evident and as it began moving around the world, there was a move toward the safety of the U.S. dollar, negatively impacting local currencies in the company's international locations, particularly those where the outbreaks were less controlled. The Brazilian real and the Mexican peso continued to be weak compared to the U.S. dollar.
- ▼ **Competitive Landscape Tough:** NEOGEN faces intense competition from companies ranging from small businesses to divisions of large multinational companies. Some of these organizations have substantially greater financial resources than the company. Historically, NEOGEN has faced intense competition resulting from the development of new technologies by the company's competitor which could affect the marketability and profitability of NEOGEN's products.
- ▼ **Global Economic Problems Hamper Growth:** The current macroeconomic environment across the globe has adversely affected NEOGEN's financial operations. Governments and insurance companies continue to look for ways to contain the rising cost of healthcare. This might put pressure on players in the healthcare industry with NEOGEN being no exception.

Global macroeconomic issues continue to put pressure on NEOGEN's vast international trade. Also, tough competitive landscape and expensive valuation also weigh on the stock.

Moreover, fluctuating currency rates also hamper growth of companies like NEOGEN, given that it derives a substantial amount of its revenues from international markets. The company's sales are thus directly affected by unfavorable macroeconomic conditions. We are concerned that such macroeconomic softness might hamper the company's growth. In the reported quarter, NEOGEN's revenues from Brazil declined by 11% as a large one-time sale of insecticides in the year-ago quarter did not recur along with adverse currency impact due to the 20% devaluation of the real against the dollar.

Last Earnings Report

NEOGEN's Earnings Miss Estimates in Q3, Margins Up

NEOGEN third-quarter fiscal 2021 earnings per share of 25 cents increased from the year-ago quarter's figure of 23 cents per share by 8.7%. It lagged the Zacks Consensus Estimate by 7.4%.

Revenues for fiscal third quarter increased 16.9% on a year-over-year basis to \$116.7 million despite the ongoing difficult global business environment. Revenues surpassed the Zacks Consensus Estimate by 9%.

Quarter Ending

02/2021

Report Date	Mar 23, 2021
Sales Surprise	9.00%
EPS Surprise	-7.41%
Quarterly EPS	0.13
Annual EPS (TTM)	0.58

Segments in Detail

For the quarter, the company registered Food Safety revenues of \$58.4 million, reflecting 15.7% (up 11% organically) year-over-year growth. The acquisitions of international distributors in the second half of fiscal 2020 and Megazyme (on Dec 30) — a food quality diagnostics company — contributed to growth. The segment's increase was led by a 14% improvement in sales of its diagnostic test kits to detect natural toxins in food and animal feed, including increases in sales of its aflatoxin test kits (up 25%).

Animal Safety revenues in fiscal third quarter were \$58.3 million, up 18.1% year over year. The upside can be attributed to 79% increase in sales of rodenticides throughout its product line, including significantly higher sales in the U.S. Pacific Northwest of products.

NEOGEN's International business increased 16% in the reported quarter, partly owing to two months of sales from the Megazyme acquisition. NEOGEN's U.K. business increased 4% in pounds as lower economic activity caused by the pandemic resulted in sluggish sales performance across the organization. However, this increase was 9% when converted to U.S. dollars.

NEOGEN's revenue from China for the current quarter was more than doubled driven by increased sales of disinfectant products, and greater sales of swine and dairy genomic services. NEOGEN Latinoamerica business based on Mexico grew 14% in the reported quarter in local currency.

NEOGEN Australasia's quarterly revenues rose 73% in local currency, aided in part by the February 2020 acquisition of a food safety distributor. NEOGEN Brazil's revenues rose 12% in local currency on strength in diagnostic kit sales, but declined 11% after translation of the Brazilian real to U.S. dollar.

In fiscal third quarter, revenues from NEOGEN's worldwide animal genomics business increased 10% year over year. The upside was primarily led by 19% increase in sales in the global swine industry, as producers rebuilt their herds that were devastated by African swine fever, especially in China.

Margin Details

NEOGEN's fiscal third-quarter gross profit increased 18.8% year over year to \$53.8 million. Gross margin expanded 75 basis points (bps) to 46.1%.

Sales and marketing expenses rose 5.8% to \$18.7 million, whereas administrative expenses rose 40.4% from the prior-year quarter to \$15.1 million. Research & development expenses were \$4.2 million, up 10.8% from the year-ago quarter. Operating costs totaled \$38.1 million, up 17.9% year over year.

In the reported quarter, operating income was \$15.8 million, up 20.9% from the year-ago quarter's level. Nevertheless, operating margin expanded 46 bps to 13.5%.

Cash Position

The company ended fiscal third-quarter 2021 with cash and investments of \$353.3 million, up from \$343.7 million at the end of the fiscal second quarter. The company had no debt on the balance sheet at quarter-end.

Recent News

NEOGEN Extends Strategic Partnership with Gencove: June 28, 2021

NEOGEN extended its strategic partnership with genomics software company Gencove Inc. to continue developing strong and innovative animal genomic testing. Through this multi-year global agreement, NEOGEN can offer its SkimSeek low-pass sequencing technology to customers throughout the agricultural community and deliver accurate and enhanced genomics data utilizing Gencove's unique sequence imputation platform.

NEOGEN-CAT Partner to Develop Genomics Solutions for Aquaculture: June 24, 2021

NEOGEN collaborated with Center for Aquaculture Technologies (CAT) to provide high-quality genotyping services to aquaculture producers. This partnership will bring together NEOGEN and CAT's expertise to apply modern sequencing and genotyping technologies to aquaculture species. It is expected to support the aquaculture sector in making more informed breeding decisions.

Soleris Direct Yeast and Mold Test Awarded AOAC Certification: June 17, 2021

NEOGEN's Soleris Direct Yeast and Mold test received Performance Tested Methods Certification from the AOAC Research Institute's Emergency Response Validation Process to identify yeasts and molds in dried cannabis flower. The Soleris Direct Yeast and Mold test offers increased safety and security to the cannabis industry through accurate detection of potentially harmful microorganisms within the industry.

NEOGEN's Viroxide Super Receives EPA Approval: Jun 2, 2021

NEOGEN announced that EPA has granted an expedited, initial registration to distribute NEOGEN Viroxide Super disinfectant in the United States to help slow the spread of the virus that causes COVID-19.

NEOGEN Launches New AccuPoint Advanced Next Generation System: May 3, 2021

NEOGEN launched a better version of AccuPoint Advanced sanitation monitoring system that is simpler to use and provides results that are easier to analyze.

Valuation

NEOGEN shares are up 16.1% in the year-to-date period and up 18.1% in the trailing 12-month period. Stocks in the Zacks sub-industry are up 3.8% while the Zacks Medical sector are down 2% in the year-to-date period. Over the past year, the Zacks sub-industry is up 17.1% and sector is up 5.6%.

The S&P 500 index is up 14.9% in the year-to-date period and rose 38.9% in the past year.

The stock is currently trading at 68.4X Forward 12-months earnings, which compares to 27.5X for the Zacks sub-industry, 23.7X for the Zacks sector and 21.9X for the S&P 500 index.

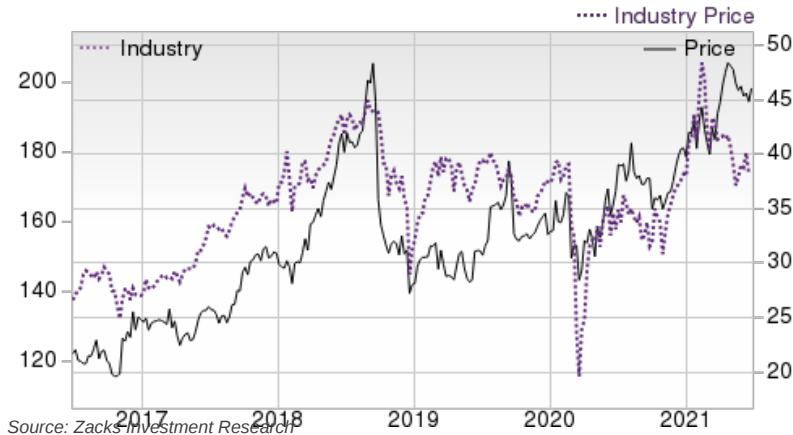
Over the past five years, the stock has traded as high as 78.3X and as low as 42.2X, with a 5-year median 53.2X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$49 price target reflects 73.1X forward 12-months earnings.

The table below shows summary valuation data for NEOG

Valuation Multiples - NEOG					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	68.35	27.47	23.72	21.86
	5-Year High	78.29	30.08	23.72	23.83
	5-Year Low	42.18	16.75	15.82	15.31
	5-Year Median	53.24	22.14	19.38	18.20
P/S F12M	Current	9.72	3.78	2.51	4.76
	5-Year High	11.19	3.89	3.17	4.76
	5-Year Low	5.12	2.59	2.27	3.21
	5-Year Median	7.45	3.44	2.78	3.73
P/B TTM	Current	6.10	3.47	4.55	7.13
	5-Year High	8.63	3.95	5.05	7.14
	5-Year Low	4.00	2.23	3.03	3.84
	5-Year Median	5.48	3.04	4.35	5.02

As of 06/30/2021

Industry Analysis Zacks Industry Rank: Bottom 31% (172 out of 251)



Top Peers

Company (Ticker)	Rec	Rank
Elanco Animal Health Incorporated (ELAN)	Outperform	3
BioRad Laboratories, Inc. (BIO)	Neutral	3
Laboratory Corporation of America Holdings (LH)	Neutral	2
3M Company (MMM)	Neutral	2
Merck & Co., Inc. (MRK)	Neutral	4
Phibro Animal Health Corporation (PAHC)	Neutral	2
Thermo Fisher Scientific Inc. (TMO)	Neutral	3
Zoetis Inc. (ZTS)	Neutral	2

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

Industry Comparison Industry: Medical - Products				Industry Peers		
	NEOG	X Industry	S&P 500	BIO	LH	MMM
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	2	2
VGM Score	D	-	-	D	A	B
Market Cap	4.93 B	663.83 M	30.25 B	19.18 B	26.95 B	115.14 B
# of Analysts	2	3	12	1	8	7
Dividend Yield	0.00%	0.00%	1.32%	0.00%	0.00%	2.98%
Value Score	D	-	-	B	A	C
Cash/Price	0.07	0.10	0.06	0.05	0.07	0.05
EV/EBITDA	50.43	2.26	17.23	3.68	8.56	14.71
PEG F1	6.90	2.34	2.09	NA	1.14	2.14
P/B	6.10	3.73	4.07	1.81	2.69	8.33
P/CF	62.33	24.58	17.49	60.61	7.83	16.37
P/E F1	68.96	28.93	21.14	53.38	12.05	20.31
P/S TTM	10.95	5.96	3.43	7.10	1.76	3.49
Earnings Yield	1.46%	1.64%	4.63%	1.87%	8.30%	4.92%
Debt/Equity	0.00	0.02	0.66	0.00	0.50	1.22
Cash Flow (\$/share)	0.74	0.00	6.86	10.63	35.24	12.13
Growth Score	D	-	-	C	A	B
Historical EPS Growth (3-5 Years)	10.33%	7.40%	9.59%	35.67%	19.33%	1.59%
Projected EPS Growth (F1/F0)	14.24%	25.09%	19.83%	14.73%	-4.36%	11.92%
Current Cash Flow Growth	0.09%	-2.29%	1.02%	48.88%	102.69%	1.21%
Historical Cash Flow Growth (3-5 Years)	12.01%	8.88%	7.34%	22.91%	22.28%	1.95%
Current Ratio	12.09	3.38	1.38	3.57	1.67	1.83
Debt/Capital	0.00%	8.29%	41.48%	0.10%	33.39%	54.88%
Net Margin	13.66%	-9.67%	12.06%	151.73%	17.26%	17.34%
Return on Equity	8.03%	-3.00%	16.63%	4.55%	34.07%	44.00%
Sales/Assets	0.54	0.52	0.51	0.22	0.79	0.71
Projected Sales Growth (F1/F0)	8.18%	11.56%	9.37%	6.42%	3.86%	8.71%
Momentum Score	D	-	-	F	F	C
Daily Price Change	-0.99%	0.00%	0.13%	-0.20%	-0.05%	1.33%
1-Week Price Change	2.73%	2.17%	1.31%	1.73%	2.71%	1.64%
4-Week Price Change	1.76%	1.64%	2.12%	10.83%	4.68%	-2.29%
12-Week Price Change	4.08%	-1.19%	5.33%	11.73%	9.33%	1.89%
52-Week Price Change	20.29%	26.48%	37.92%	41.78%	65.15%	27.79%
20-Day Average Volume (Shares)	327,187	316,677	1,970,683	135,127	663,948	2,393,550
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.81%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	0.00%	0.01%	0.00%	0.81%	0.51%

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

EPS F1 Estimate 12-Week Change	0.00%	0.00%	3.72%	7.29%	7.22%	2.45%
EPS Q1 Estimate Monthly Change	-3.23%	0.00%	0.00%	0.00%	-0.30%	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	D
Growth Score	D
Momentum Score	D
VGM Score	D

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

Disclosures

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

proportionate to its market value.

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital

intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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