

Northrop Grumman(NOC)

\$315.49 (As of 09/30/20)

Price Target (6-12 Months): **\$334.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 04/04/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:A

Value: B

Growth: A

Momentum: C

Summary

Northrop Grumman has developed into one of the top largest U.S. defense contractors in terms of revenues, with a major platform-centric focus. As a major U.S. defense contractor, it enjoys a strong position in the Air Force, Space & Cyber Security programs. Its product line is well positioned in high priority categories, which enables it to clinch notable contracts from the Pentagon. The favorable amendments included in the fiscal 2021 defense budget proposal are expected to boost defense primes like Northrop's top line. The company has outperformed the industry in the past year. However, a comparative analysis of its historical EV/Sales ratio reflects a relatively gloomy picture that might be a cause concern for investors. Unforeseen accidents while producing products such as explosive and flammable materials might push up costs.

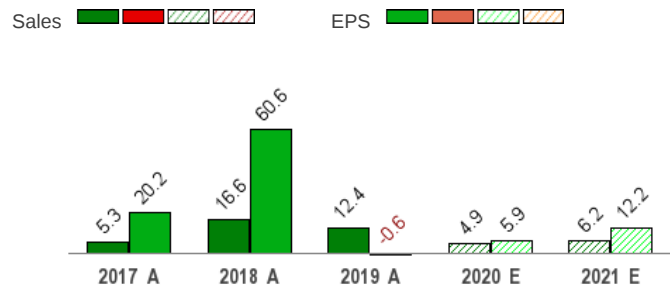
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$385.01 - \$263.31
20-Day Average Volume (Shares)	609,556
Market Cap	\$52.6 B
Year-To-Date Price Change	-8.3%
Beta	0.81
Dividend / Dividend Yield	\$5.80 / 1.8%
Industry	Aerospace - Defense
Zacks Industry Rank	Bottom 13% (218 out of 251)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	12.1%
Last Sales Surprise	3.4%
EPS F1 Estimate 4-Week Change	-0.1%
Expected Report Date	10/22/2020
Earnings ESP	0.0%
P/E TTM	14.2
P/E F1	14.1
PEG F1	1.1
P/S TTM	1.5

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	9,229 E	9,424 E	9,523 E	9,835 E	37,690 E
2020	8,620 A	8,884 A	8,838 E	9,147 E	35,503 E
2019	8,189 A	8,456 A	8,475 A	8,721 A	33,841 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$5.70 E	\$5.96 E	\$6.23 E	\$6.34 E	\$25.19 E
2020	\$5.15 A	\$6.01 A	\$5.48 E	\$5.60 E	\$22.46 E
2019	\$5.06 A	\$5.06 A	\$5.49 A	\$5.61 A	\$21.21 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, except sales and EPS estimates, is as of 09/30/2020. The reports text and the analyst-provided sales and EPS estimates are as of 10/01/2020.

Overview

Originally formed in 1939 as Northrop Aircraft Incorporated and reincorporated in Delaware in 1985 as Northrop Corporation was a principal developer of flying wing technology. In 1994, the company acquired Grumman Corporation (Grumman), after which the company was renamed Northrop Grumman Corporation. Currently, this global security company supplies a broad array of products and services to the U.S. Department of Defense (DoD) including electronic systems, information technology, aircraft, space technology and systems integration services. Northrop Grumman has realigned its business units effective January 2020.

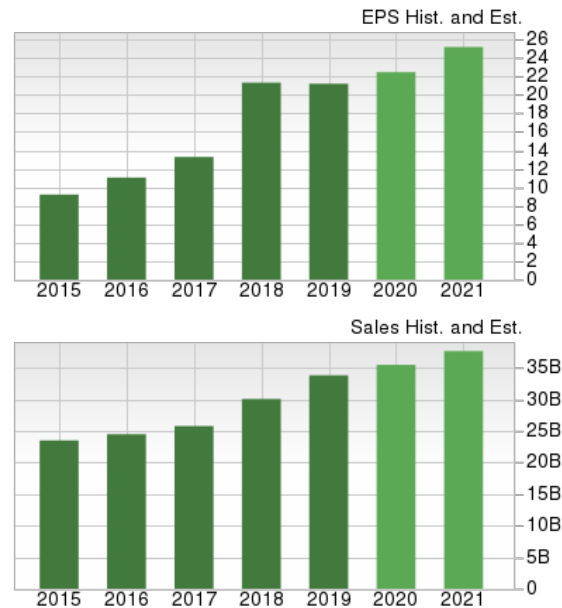
Aeronautics Systems unit focuses on the development, integration, production and support of manned aircraft and autonomous systems. Segmental revenues in second-quarter 2020 totaled \$2,925 million, representing 32.9% of the company's top line.

Defense Systems unit focuses on mission readiness along with battle management and missile systems. Segmental revenues in second-quarter 2020 totaled \$1,886 million, representing 21.2% of the company's top line.

Mission Systems unit includes airborne sensors and networks, cyber and intelligence mission solutions, maritime/land systems and sensors, along with navigation, targeting and survivability. Segmental revenues in second-quarter 2020 totaled \$2,446 million, representing 27.5% of the company's top line.

Space Systems unit focuses on launch and strategic missiles as well as varied space related products that Northrop manufactures. Segmental revenues in second-quarter 2020 totaled \$2,048 million, representing 23.1% of the company's top line.

However, total revenues of \$8,884 million in the second quarter were adjusted for intersegment eliminations of up to \$421 million.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ Northrop Grumman has developed into one of the top largest U.S. defense contractors in terms of revenues, with a major platform-centric focus. The company has a strong presence in Air Force, Space & Cyber Security programs. Northrop's product line is well positioned in high priority categories, such as defense electronics, unmanned aircraft and missile defense. Such solid product portfolio enables the company to clinch notable contracts from Pentagon and foreign allies of the United States, thereby boosting its top-line. Notably, Northrop Grumman witnessed solid 5% sales growth in second-quarter 2020 compared with the year-ago quarter's figure, with majority of its business segments delivering encouraging top-line performance.
- ▲ The fiscal 2021 budget proposal includes \$740.5 billion as funding for the Pentagon, reflecting 3% growth over the approved fiscal 2020 President's budget. In particular, the proposal includes a spending provision worth \$11.4 billion for the F-35 program, for which Northrop Grumman is a subcontractor. The proposal also includes a spending provision worth \$2.8 billion for the company's B-21 Raider long-range strike bomber. Such encouraging spending plans by the U.S. administration are expected to significantly boost growth prospects of defense primes like Northrop Grumman.
- ▲ Foreign military sales (FMS) are also a key catalyst. The company's international sales came in at \$1.26 billion in the second quarter, comprising 14.2% of its total sales. Looking ahead, Northrop Grumman continues to witness strong demand for its products on a global scale, with programs like F-35, Triton and SABR radar Global Hawk, E-2D Advanced Hawkeyes, along with a solid set of new programs in the international market. Such strong growth opportunities must have boosted investors' confidence in this stock. Evidently, shares of Northrop Grumman have lost 12.9% in a year, compared to the industry's 33.9% decline.
- ▲ Northrop Grumman's cash and cash equivalents were \$4.18 billion at the end of second quarter 2020, compared with \$3.28 billion in the prior quarter. Its long-term debt was \$14.23 billion as of Jun 30, 2020, while it had no outstanding short-term commercial paper borrowings as of Jun 30, 2020. Although the long-term debt value lies much above the company's cash reserve, the current debt is much below its cash balance. This indicates Northrop's strong solvency position, at least in the short term. Additionally, the company had a current ratio of 1.36, as of Jun 30, 2020, compared with 1.29 as of Mar 31, 2020. This improved current ratio indicates this defense major's ability to pay off its short-term obligations.

Further, the company's times interest earned ratio has improved sequentially. It came in at 6.2 at the end of second-quarter 2020, up from 6 in the previous quarter. The improvement in this ratio indicates that the firm will be able to meet debt obligations in the near future without any difficulties. Such solid financial position also enables the company to maintain a stable capital deployment strategy. As of Jun 30, 2020, Northrop made share repurchases worth \$490 million and raised its dividend by 10% in May. At a time when every entity is looking forward to preserve liquidity amid uncertainty as a result of the COVID-19 outbreak, improving financial ratios of Northrop Grumman is reassuring for investors.

Northrop Grumman Corporation's gain from favorable budgetary attributes and FMS contracts will help maintain a stable earnings stream. Its financial position also remains strong

Reasons To Sell:

- ▼ Although the novel coronavirus outbreak did not have a significant impact on Northrop's second-quarter results, the company fears that the continued spread of COVID-19 is likely to cause extended disruption in its supply chain. If the company's suppliers face increased challenges with their workforce, access to necessary components and supplies, access to capital, and access to fundamental support services, they may be unable to provide the agreed-upon goods and services in a timely, compliant and cost-effective manner. Consequently, the defense giant may incur additional costs and delays in its business. The company expects that the longer the COVID-19 pandemic, including its economic disruption, continues, the greater the adverse impact will be on its operating results.
- ▼ A comparative analysis of its historical EV/SALES ratio reflects a relatively gloomy picture that might be a cause for Northrop Grumman's investors' concern. The stock currently has a trailing 12-month EV/SALES ratio of 1.81. This level compares unfavorably with what the stock has witnessed in a year's time. Moreover, the company's EV/SALES ratio is higher than that of its sector's ratio of 1.59.
- ▼ Certain of Northrop Grumman's products such as small, medium and large caliber ammunition, solid rocket motors and liquid propulsion engines, involve the using, manufacturing and handling of a variety of explosive as well as flammable materials. Sometimes these activities result in incidents, such as an explosion at the Lake City Army Ammunition Plant in 2017 that caused workplace injuries and fatalities, the temporary shut down or other disruption of manufacturing processes, production delays, environmental harm and expenses, fines and liability to third parties. Although the company has taken initiatives to mitigate such incidents and has insurance coverage, similar or more serious incidents in the future might result in various liabilities and production delays.

Northrop Grumman's unfavorable EV/Sales ratio coupled with exposure to workplace related fatalities raise concerns. The rapid spread of the COVID-19 pandemic also poses risk for the stock

Last Earnings Report

Northrop Grumman Beats on Q2 Earnings, Ups '20 View

Northrop Grumman reported second-quarter 2020 earnings of \$6.01 per share, which surpassed the Zacks Consensus Estimate of \$5.36 by 12.1%. The bottom line also increased 19% from \$5.06 reported in the year-ago quarter.

Total Sales

In second-quarter 2020, Northrop Grumman reported total sales of \$8,884 million, which surpassed the Zacks Consensus Estimate of \$8,589 million by 3.4%. Sales also increased 5% from the year-ago quarter's \$8.456 million. The upside was primarily driven by a solid double-digit increase in the Space Systems' sales.

Backlog Count

Northrop Grumman's total backlog stood at \$70 billion at the end of second-quarter 2020 compared with \$64.84 billion at 2019-end. Of the total backlog, \$33.86 billion was funded.

Segmental Details

Effective Jan 1, 2020, Northrop made some structural changes in its reportable segments.

Aeronautics Systems: Segment sales of \$2,925 million grew 7% year over year as a result of higher sales from both autonomous systems and manned aircraft.

Operating income improved 4% to \$310 million, whereas operating margin contracted 40 basis points (bps) to 10.6%.

Mission Systems: Segment sales increased 2% to \$2,446 million, driven by higher sales volume from airborne sensors and network programs.

Operating income rose 3% to \$347 million, with operating margin expanding 10 bps to 14.2%.

Defense Systems: Sales at this segment declined 2% to \$1,886 million due to lower volumes in battle management & missile system programs.

Operating income increased 2% to \$217 million, while operating margin expanded 40 bps to 11.5%.

Space Systems: Space Systems' second-quarter 2020 sales increased 15% to \$2,048 million owing to higher sales from both Space and Launch & Strategic Missiles programs.

The segment's operating income improved 8% to \$209 million, while operating margin contracted 60 bps to 10.2%.

Operational Update

Total operating costs and expenses at the end of the quarter were \$7,890 million, up 5.1% from the year-ago quarter's \$7,510 million.

Operating income during the quarter increased 5% year over year to \$994 million.

Financial Condition

Northrop Grumman's cash and cash equivalents as of Jun 30, 2020, were \$4,178 million, up from \$2,245 million as of Dec 31, 2019.

Long-term debt (net of current portion) as of Jun 30, 2020, was \$14,259 million, up from \$12,770 million as of Dec 31, 2019.

Net cash inflow from operating activities as of Jun 30, 2020, was \$1,344 million compared with \$694 million as of Jun 30, 2019.

2020 Guidance

Northrop Grumman has raised its 2020 financial guidance and expects to generate revenues of \$35.3-\$35.6 billion. The Zacks Consensus Estimate for the company's full-year sales, pegged at \$35.19 billion, lies below its projected view.

It expects free cash flow of \$3.15-\$3.55 billion for 2020.

Northrop Grumman has also raised its full-year earnings expectations from \$21.80-\$22.20 to \$22.00-\$22.40 per share. The Zacks Consensus Estimate for the company's 2020 earnings, pegged at \$22.12, lies below the midpoint of the company's guidance.

Quarter Ending	06/2020
Report Date	Jul 30, 2020
Sales Surprise	3.44%
EPS Surprise	12.13%
Quarterly EPS	6.01
Annual EPS (TTM)	22.26

Recent News

On **September 8, 2020**, Northrop Grumman was awarded a \$13.3 billion contract by the U.S. Air Force to modernize the country's intercontinental ballistic missile system. The contract will span eight and a half years and include weapon system design and nuclear certification. The company will deliver a fully-integrated weapon system by 2029.

On **August 26, 2020**, Northrop Grumman's business unit, Northrop Grumman Systems Corp. won a modification contract involving UH-1Y and AH-1Z helicopters. The deal has been awarded by the Naval Air Systems Command, Patuxent River, MD.

Valued at \$44.6 million, the contract is scheduled to be completed by December 2023. In particular, this modification will increase the ceiling of the contract for the production and delivery of an additional 228 H-1 Tech Refresh Mission Computers to support UH-1Y and AH-1Z. Majority of the work related to this deal will be executed in Salt Lake City, UT.

Valuation

Northrop Grumman's shares are down 8.3% in the year to date period and 12.9% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Aerospace sector are down 25.9% and 35.6% in the year to date period, respectively. Over the past year, the Zacks sub-industry is down 33.9% and the Zacks Aerospace sector witnessed a 37.8% decline.

The S&P 500 index is up 4.4% in the year to date period and 16.6% in the past year.

The stock is currently trading at 12.9X forward 12-month earnings, which compares to 19.1X for the Zacks sub-industry, 19.3X for the Zacks sector and 22X for the S&P 500 index.

Over the past five years, the stock has traded as high as 25.4X and as low as 11.4X, with a 5-year median of 17.9X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$334 price target reflects 13.6X forward 12-month earnings.

The table below shows summary valuation data for NOC

Valuation Multiples - NOC					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	12.87	19.04	19.26	21.99
	5-Year High	25.37	22.54	21.04	23.46
	5-Year Low	11.35	14.52	14.17	15.26
	5-Year Median	17.93	17.86	17.44	17.67
P/S F12M	Current	1.42	1.22	1.61	4.1
	5-Year High	2.23	1.64	1.69	4.3
	5-Year Low	1.16	0.95	0.93	3.18
	5-Year Median	1.62	1.28	1.24	3.67
EV/EBITDA TTM	Current	9.62	30.51	15.7	14.57
	5-Year High	23.35	32.29	16.69	15.65
	5-Year Low	8.79	8.22	7.54	9.53
	5-Year Median	13.1	11.85	10.68	13.06

As of 09/30/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 13% (218 out of 251)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Bae Systems PLC (BAESY)	Neutral	4
General Dynamics Corporation (GD)	Neutral	4
Heico Corporation (HEI)	Neutral	3
Huntington Ingalls Industries, Inc. (HII)	Neutral	5
Leidos Holdings, Inc. (LDOS)	Neutral	3
Lockheed Martin Corporation (LMT)	Neutral	3
Textron Inc. (TXT)	Neutral	3
The Boeing Company (BA)	Underperform	4

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

Industry Comparison Industry: Aerospace - Defense				Industry Peers		
	NOC	X Industry	S&P 500	BA	GD	LMT
Zacks Recommendation (Long Term)	Neutral	-	-	Underperform	Neutral	Neutral
Zacks Rank (Short Term)	2	-	-	4	4	3
VGM Score	A	-	-	F	B	A
Market Cap	52.60 B	10.72 B	22.99 B	93.28 B	39.72 B	107.14 B
# of Analysts	8	4	14	7	8	9
Dividend Yield	1.84%	0.01%	1.65%	0.00%	3.18%	2.50%
Value Score	B	-	-	F	A	B
Cash/Price	0.08	0.10	0.08	0.37	0.06	0.03
EV/EBITDA	15.31	12.82	13.09	149.88	8.72	12.82
PEG F1	1.09	2.29	2.91	NA	2.41	2.29
P/B	5.42	3.09	3.22	NA	2.86	28.30
P/CF	11.44	9.30	12.81	305.24	9.30	14.57
P/E F1	14.05	15.89	21.25	NA	12.54	15.89
P/S TTM	1.52	1.03	2.51	1.40	1.03	1.70
Earnings Yield	7.12%	4.21%	4.44%	-6.11%	7.98%	6.30%
Debt/Equity	1.47	0.95	0.70	-5.14	0.75	3.22
Cash Flow (\$/share)	27.58	2.73	6.92	0.54	14.89	26.30
Growth Score	A	-	-	F	B	A
Historical EPS Growth (3-5 Years)	23.60%	14.85%	10.45%	-7.63%	6.15%	18.30%
Projected EPS Growth (F1/F0)	5.89%	-7.43%	-2.91%	-191.04%	-7.85%	9.91%
Current Cash Flow Growth	2.21%	11.64%	5.47%	-97.35%	3.16%	18.08%
Historical Cash Flow Growth (3-5 Years)	14.43%	7.38%	8.52%	-48.30%	6.36%	9.70%
Current Ratio	1.35	1.33	1.35	1.41	1.27	1.31
Debt/Capital	59.48%	53.24%	42.68%	NA	42.98%	76.28%
Net Margin	6.91%	4.38%	10.27%	-4.27%	8.47%	10.25%
Return on Equity	40.24%	10.92%	14.74%	-3.08%	24.10%	182.05%
Sales/Assets	0.82	0.79	0.51	0.47	0.76	1.29
Projected Sales Growth (F1/F0)	4.91%	0.00%	-0.66%	-22.97%	-2.41%	8.28%
Momentum Score	C	-	-	D	D	A
Daily Price Change	-3.01%	-0.80%	0.67%	1.01%	-0.09%	-1.40%
1-Week Price Change	-3.95%	-3.92%	-2.32%	-3.17%	-3.34%	-2.14%
4-Week Price Change	-9.44%	-7.08%	-4.51%	-5.45%	-10.06%	-3.72%
12-Week Price Change	4.78%	-2.69%	5.70%	-8.23%	-3.80%	9.44%
52-Week Price Change	-12.97%	-18.54%	3.48%	-55.01%	-20.63%	1.35%
20-Day Average Volume (Shares)	609,556	547,090	2,145,455	21,442,518	1,102,988	1,155,533
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	-0.10%	0.00%	0.00%	-1.99%	-0.09%	0.02%
EPS F1 Estimate 12-Week Change	1.54%	0.00%	4.07%	-78.60%	-0.86%	2.03%
EPS Q1 Estimate Monthly Change	-0.24%	0.00%	0.00%	0.00%	-1.64%	-0.28%

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	B
Growth Score	A
Momentum Score	C
VGM Score	A

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

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

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

Glossary of Terms and Definitions

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

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

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

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

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

4-Week Price Change: This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a 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.