

The Boeing Company (BA)

\$237.20 (As of 12/03/20)

Price Target (6-12 Months): **\$237.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 10/28/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:F

Value: F

Growth: F

Momentum: D

Summary

Boeing remains the largest aircraft manufacturer in the United States in terms of revenue, orders and deliveries, and is one of the largest aerospace and defense contractors. Furthermore, its revenue exposure is spread across more than 90 countries around the globe. Although its commercial business outlook for the near term appears grim, over the long run, the jet maker holds immense growth prospects. Its share price has outperformed its industry in the past six months. However, Airbus beat Boeing as the world's largest plane makers in 2019 for the first time in the last eight years. Although the company projects its 737 MAX deliveries to resume during the fourth quarter of 2020, its commercial business is likely to perform poorly until successful delivery of these jets starts and substantial revenues are generated.

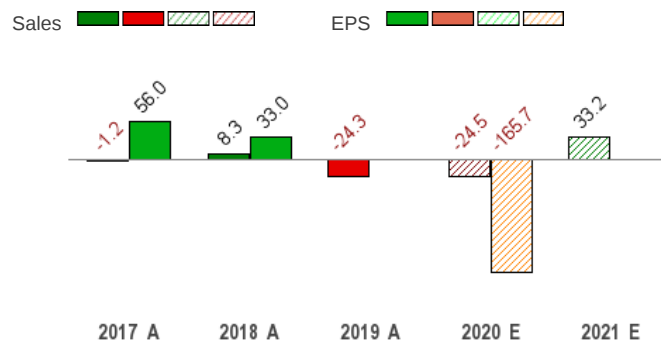
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$355.29 - \$89.00
20-Day Average Volume (Shares)	26,547,046
Market Cap	\$126.4 B
Year-To-Date Price Change	-31.3%
Beta	1.65
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Aerospace - Defense
Zacks Industry Rank	Bottom 10% (229 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	40.3%
Last Sales Surprise	2.4%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	02/03/2021
Earnings ESP	0.0%
P/E TTM	NA
P/E F1	NA
PEG F1	NA
P/S TTM	2.1

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	18,356 E	20,097 E	21,656 E	22,452 E	76,996 E
2020	16,908 A	11,807 A	14,139 A	15,349 E	57,800 E
2019	22,917 A	15,751 A	19,980 A	17,911 A	76,559 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	-\$0.07 E	\$0.46 E	\$0.72 E	\$0.84 E	\$0.52 E
2020	-\$1.70 A	-\$4.79 A	-\$1.39 A	-\$1.14 E	-\$9.22 E
2019	\$3.16 A	\$2.92 A	\$1.45 A	-\$2.33 A	-\$3.47 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 12/03/2020. The reports text is as of 12/03/2020.

Overview

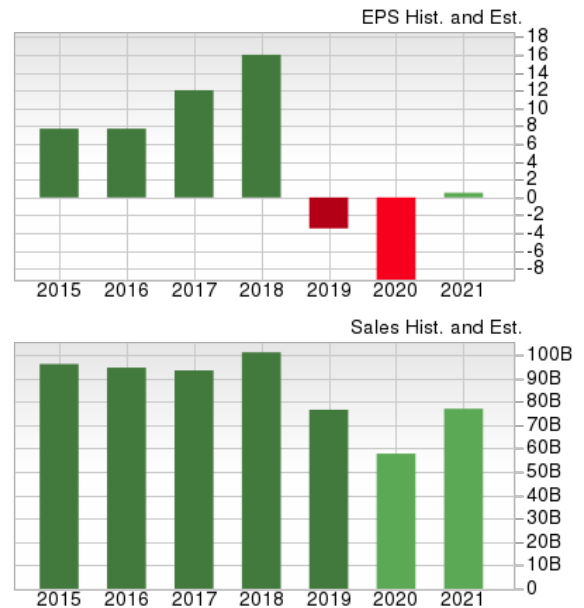
The **Boeing Company** is the largest constituent of the Dow Jones Industrial Average. The company's premier jet aircraft along with varied defense products positions it as one of the largest defense contractors in the United States. Its customers include domestic and foreign airlines, the U.S. Department of Defense (DoD), the Department of Homeland Security, the National Aeronautics and Space Administration (NASA), other aerospace prime contractors, and certain U.S. government and commercial communications customers. Currently the company operates in four segments:

Boeing Commercial Airplanes (BCA) Segment – This segment develops, produces and markets commercial jets, along with providing related support services. The company is a leading producer of commercial aircraft and has a series (737 Next-Generation narrow-body model and the 747, 767, 777 and 787 wide-body models) of commercial jetliners. Segment revenues in 2019 were \$32.26 billion, representing 42% of the company's top line.

The three units that comprise the **Boeing Defense, Space & Security (BDS)** segment are as follows: Boeing Military Aircraft (BMA), Network and Space Systems (N&SS) and Global Services and Support (GS&S). The segment recorded revenues of \$26.23 billion in 2019, contributing 34.3% to the company's top line.

Boeing Global Services (BGS) Segment – This segment brings together certain Commercial Aviation Services businesses and BDS businesses. It provides parts, maintenance, modifications, logistics support, training, data analytics and information-based services to commercial and government customers worldwide. Revenues for this segment in 2019 amounted to \$18.47 billion, comprising 24% of the company's top line.

Boeing Capital Corporation (BCC) Segment – In the commercial aircraft market, BCC provides selective financing solutions for the Commercial Airplanes segment customers. In the space and defense markets, BCC arranges and structures financing solutions for BDS segment government customers. Revenues for this segment in 2019 amounted to \$0.24 billion, comprising 0.3% of the company's top line.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ Boeing remains the largest aircraft manufacturer in the United States in terms of revenue, orders and deliveries, and is one of the largest aerospace and defense contractors. Furthermore, its revenue exposure is spread across more than 90 countries around the globe. Although its commercial business outlook for the near term appears grim, over the long run, the jet maker holds immense growth prospects. Per the latest Boeing market outlook (BMO), the company anticipates that the world will need 48,400 new planes, worth \$8.5 trillion between 2020 and 2039. This estimated figure indicates a 9.9% improvement over the company's prior 20-year forecast for jetliner demand.

Long-term prospects of global services unit and increasing fiscal defense budget are expected to boost Boeing's growth

Moreover, over the next 20 years, passenger traffic growth is projected to increase by an average of 4% per year. This reflects bright growth prospects for commercial aerospace players like Boeing. On the other hand, although near-term commercial services demand is lower, BMO forecasts a \$3 trillion market opportunity for commercial and government services through 2029, with digital solutions emerging as a critical enabler as customers focus on leaner operations to adjust to future market demand. This should bode well for the BGS business unit over the long run. Considering such solid projections, demand for Boeing's diverse family of commercial airplanes should continue to witness a notable uptick over the long run. These latest developments must have encouraged investor's interest in this stock. Evidently, Boeing's shares have gained 21.4% in the past six months against the industry's decline of 1.9%.

- ▲ While Boeing's commercial business has not been performing well for the past couple of quarters on account of lower 737 deliveries, the outlook for the aerospace giant's defense business remains optimistic. In particular, the current U.S. government's inclination toward strengthening the nation's defense system should act as a growth catalyst for defense players like Boeing. Notably, as part of the fiscal 2021 defense budget proposal, \$740.5 billion has been allocated as funding for the Pentagon, reflecting 3% growth over the fiscal 2020 budget. In particular, the budget has allotted \$3 billion for procurement of 15 KC-46, \$2.1 billion for 24 F/A-18 E/F Super Hornets, \$1.2 billion for 52 AH-64E Attack Helicopters, \$0.3 billion for P-8A jets and \$1.6 billion for F-15 EX jets. The financial plan also includes an allotment of \$0.4 billion for the procurement of 1,490 Small Diameter Bomb II. All these expansionary budgetary provisions will immensely boost Boeing's defense business.

This must have enabled BMO to project a \$2.6 trillion market opportunity for defense and space during the next decade. To this end, it is imperative to mention that in the third quarter, the BDS unit won key contract awards worth \$5 billion, including a contract extension for the International Space Station for NASA. This segment's backlog now stands at \$62 billion. Looking ahead, Boeing is focused on future franchise programs such as the MQ-25, the T-7A Red Hawk and the MH-139A Grey Wolf. The company is also working to ensure strong performance of its existing platforms, especially U.S. Air Force KC-46 program and its space programs, including Commercial Crew and Space Launch Systems.

- ▲ Boeing's cash and cash equivalent at the end of third quarter of 2020 was \$10.56 billion, compared with \$19.99 billion at the end of June 2020. On the other hand, the company's short-term debt and current portion of long-term debt was worth \$3.63 billion as of Sep 30, 2020, while its long-term debt is \$57.33 billion. Therefore, although its long-term debt lies much above its cash reserve, its short-term debt is much lower than its cash reserve balance as of Sep 30, 2020, indicating the jet maker's ability to pay off its short-term obligations.

Moreover, the company's current ratio was 1.42 as of Sep 30, 2020, compared with 1.41 as of Jun 30, 2020. Now, not only does this ratio has improved but is also more than 1, thereby indicating the fact that the jet maker has enough capital on hand to meet its short-term obligations. This makes us optimistic about the firm's ability to meet debt obligations in the near future.

Reasons To Sell:

- ▼ Boeing's commercial business has been suffering since March 2019, following the two fatal crashes involving 737 Max jets, which resulted in the subsequent grounding of these jets. On top of that, the COVID-19 impacts on Boeing's commercial customers continue to be devastating, as airlines have cut back operations dramatically. Consequently, its commercial deliveries plunged 55% year over year, resulting in a huge 56% decline in the unit's revenues during the third quarter. Such dismal performance recorded by Boeing's largest revenue-generating business segment also hit the company's cash position and hampered other operational results. Boeing incurred adjusted loss of \$1.39 per share in third-quarter 2020, which deteriorated from the year-ago quarter's earnings of \$1.45. Moreover, its operating cash outflow was \$14.40 billion at the end of the reported quarter, compared with \$0.23 billion at the end of September 2019.

Risks related to lower 737 deliveries and increasing competition with Airbus raise concerns.

Further, the BCA unit incurred \$590 million of abnormal production costs related to the 737 MAX program, which, along with severance costs for the additional approximate 7,000 employees leaving the company through 2021-end, dragged down its overall earnings. Although the company projects its 737 MAX deliveries to resume during the fourth quarter of 2020, the Federal Aviation Administration is yet to offer this jet flight certification. So, following this certification, until successful delivery of these jets start and substantial revenues are generated, we expect the performance of Boeing's commercial business to remain poor.

- ▼ The global outbreak of COVID-19 coupled with the ongoing grounding of the 737 MAX airplane has been significantly impacting Boeing's business. Notably, the aerospace industry is facing an unprecedented slump, which has created a tremendous challenge for Boeing's customers, business and the entire aerospace manufacturing and services sector. In light of the ongoing challenges presented by the pandemic and its impact on Boeing's airline customers, the company now plans to reduce the 787 production rate from the current 10 per month to 6 per month in 2021. Meanwhile, the 787 Dreamliner is facing some quality issues, after a manufacturing problem affecting the horizontal stabilizer on 787 was detected. Such reduced production rate and quality issues do not bode well for commercial aerospace giants like Boeing.

Moreover, the company currently expects that it will take 2-3 years for travel to return to 2019 levels and a few years beyond that for the industry to return to long-term trend growth. This indicates further operational losses for its BCA unit and makes us skeptical about the segment's recovery in the near term.

- ▼ Airbus crossed its 2019 delivery target of 860 planes and beat its long-time rival, Boeing, thereby seizing the title of the world's largest plane maker, for the first time in last eight years. Undoubtedly, the dramatic grounding of Boeing's fastest-selling 737 Max planes in March 2019, followed by the production rate cut of this jetliner in April are to be blamed for this unfortunate turn of events. Needless to say, new orders dried up after two fatal crashes forced Boeing to ground 737 Max jets as airlines refused to take any new delivery. As a result, Boeing's commercial aircraft deliveries touched rock bottom, offering Airbus the golden opportunity to snatch the largest plane maker title. Additionally, Airbus is leading the emerging market for long-range, midsize jets. These recent developments reflect the tough terrain that Boeing's commercial business is going through and the losses it is expected to incur until 737 returns to service.

Last Earnings Report

Boeing Q3 Earnings Beat Estimates, Revenues Decline Y/Y

The Boeing Company incurred adjusted loss of \$1.39 per share for third-quarter 2020, narrower than the Zacks Consensus Estimate of a loss of \$2.33. However, the bottom line deteriorated from the year-ago quarter's earnings of \$1.45.

Including one-time items, the company posted GAAP loss of 79 cents per share against earnings of \$2.05 registered in the third quarter of 2019.

The year-over-year deterioration can be attributed primarily to revenue decline in the reported quarter.

Revenues

In the quarter under review, Boeing's revenues amounted to \$14.14 billion, which beat the Zacks Consensus Estimate of \$13.81 billion by 2.4%. The top line however declined 29.2% from the year-ago quarter's figure of \$19.98 billion.

This decline was due to lower year-over-year revenues that the company's segments recorded in the reported quarter, except Boeing Capital.

Total Backlog

Backlog at the end of third-quarter 2020 dropped to \$393.1 billion from \$408.7 billion at the end of second-quarter 2020.

Segmental Performances

Commercial Airplane: Revenues at this segment plunged 56% to \$3.60 billion due to lower delivery volume. The segment incurred operating loss of \$1.37 billion compared with loss of \$0.04 billion in the year-ago quarter.

Boeing delivered 28 commercial planes during the quarter under review, down 55% year over year.

Backlog for this segment remained healthy with over 4,300 airplanes valued at \$313 billion.

Boeing Defense, Space & Security (BDS): This segment recorded revenues worth \$6.85 billion in the third quarter, reflecting 2% year-over-year decline. The year-over-year deceleration can be attributed to derivative aircraft award timing.

Meanwhile, this unit generated operating income of \$628 million, compared with \$754 million in the year-ago quarter.

Backlog at BDS was \$62 billion, 30% of which comprised orders from international clients.

Global Services: Revenues at this segment declined 21% to \$3.69 billion on account of lower commercial services volume thanks to COVID-19 impacts. Moreover, this unit generated operating income of \$271 million compared with \$673 million in the year-ago quarter.

Boeing Capital Corporation (BCC): This segment reported quarterly revenues of \$71 million compared with \$66 million registered in the year-ago quarter.

At the end of third-quarter 2020, BCC's portfolio balance was \$2 billion.

Financial Condition

Boeing exited the third quarter with cash and cash equivalents of \$10.56 billion, and short-term and other investments of \$16.55 billion. At the end of 2019, the company had \$7.64 billion of cash and cash equivalents, and \$0.93 billion of short-term and other investments. Long-term debt amounted to \$57.33 billion at the end of the reported quarter, significantly up from \$19.96 billion at 2019 end.

Boeing's operating cash outflow at the end of the third quarter was \$14.40 billion compared with \$0.23 billion at the end of September 2019.

Free cash outflow totaled \$15.44 billion in third-quarter 2020 end compared with \$1.61 billion at the end of third-quarter 2019.

Guidance

Due to the uncertainty regarding the timing and conditions related to 737 MAX fleet's return to service, Boeing has once again refrained from issuing its guidance for now.

Quarter Ending	09/2020
Report Date	Oct 28, 2020
Sales Surprise	2.37%
EPS Surprise	40.34%
Quarterly EPS	-1.39
Annual EPS (TTM)	-10.21

Recent News

On **Nov 23, 2020**, Alaska Air Group's subsidiary Alaska Airlines announced plans to lease 13 new Boeing 737-9 MAX aircraft from Air Lease Corporation as part of its fleet modernization efforts.

On **Nov 18, 2020**, it was announced that the U.S. Federal Aviation Administration (FAA) has rescinded the order that halted commercial operations of Boeing 737-8s and 737-9s. The move will allow airlines that are under the FAA's jurisdiction, including those in the United States, to take the steps necessary to resume service and Boeing to begin making deliveries.

On **Nov 18, 2020**, Boeing released its 20-year commercial outlook for the Middle East. The company anticipates demand for 2,945 new airplanes in the Middle East valued at \$685 billion over the next two decades, as the industry recovers from the COVID-19 pandemic in the medium and long term. The projection is part of Boeing's 2020 Commercial Market Outlook (CMO), an annual forecast of 20-year demand for commercial airplanes and services.

The 2020 CMO reflects the impact of the pandemic and Boeing's view of near-, medium- and long-term market dynamics globally and regionally. Commercial aviation and services markets will continue to face significant challenges earlier in the 20-year forecast, while showing resilience and a return to growth trend over the longer term.

On **Nov 16, 2020**, Boeing revealed impressive projections for the China aviation market. In particular, it expects China to acquire 8,600 new airplanes valued at approximately \$1.4 trillion over the next 20 years, with commercial aviation services valued at \$1.7 trillion. This estimate reflects a solid 7% improvement over the last year's forecast made by the company, indicating an expected robust recovery amid the COVID-19 pandemic.

Boeing revealed its outlook on the China aviation market as part of the 2020 Commercial Market Outlook (CMO), based on anticipated demands for commercial airplanes and services.

On **Oct 27, 2020**, it was announced that through five new agreements, Boeing and its Canadian aerospace partners are preparing to deliver C\$61 billion and nearly 250,000 jobs to the Canadian economy. According to new data and projections from economists at Ottawa-based Doyletech Corp., the total economic benefits to Canada and its workforce for the acquisition of the F/A-18 Block III Super Hornet will last for at least 40 years, which in turn should benefit the American jet giant.

On **Oct 13, 2020**, Boeing announced that it has won a Performance Based Logistics (PBL) contract valued at \$477 million from the Defense Logistics Agency (DLA) for supplies, full supply chain management and logistics services to ensure long-term, affordable sustainment of multiple weapon systems platforms. Work will be performed under a fixed-price, master services agreement.

On **Oct 2, 2020**, Boeing won a contract to offer maintenance, rebuilding and technical services to support the Navigation subsystem for the Trident II (D5) missile. The deal has been awarded by the Strategic Systems Programs, Washington, D.C.

Valued at \$59.1 million, the contract is scheduled to be completed by Sep 30, 2022. Majority of work related to the deal will be executed in Huntington Beach, CA.

On **Oct 1, 2020**, Boeing revealed it will shut down the original assembly line for its two-aisle 787 jetliner near Seattle and consolidate the plane's production in South Carolina as the airline industry tries to weather the global pandemic.

On **Sep 10, 2020**, Boeing announced that it has signed a multi-year agreement with the Salt River Project (SRP) utility to power Boeing's Mesa site with renewable solar energy.

Boeing will be one of several companies to receive power from SRP's soon-to-be-built 100-megawatt solar photovoltaic plant in Eloy, Arizona. Boeing's Mesa site will receive about 25% of its electricity needs from this plant over the next 15 years. This supports the company's overall goal to reduce greenhouse gas emissions 25% by 2025, and ultimately power operations with 100% renewable energy.

Valuation

Boeing's shares are up 21.4% in the past six month's period although down 35.9% over the trailing 12-month period, respectively. Stocks in the Zacks sub-industry and the Zacks Aerospace sector are down 1.9% and 3.2% in the past six month's period, respectively. Over the past year, the Zacks sub-industry is down 26.7% while the sector is down 29.7%.

The S&P 500 index is up 17.8% in the past six month's period and 17.9% in the past year.

The stock is currently trading at 1.7X forward 12-months sales, which compares to 1.4X for the Zacks sub-industry, 1.8X for the Zacks sector and 4.3X for the S&P 500 index.

Over the past five years, the stock has traded as high as 2.3X and as low as 0.6X, with a 5-year median of 1.6X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$237 price target reflects 1.77X forward 12-months sales.

The table below shows summary valuation data for BA

Valuation Multiples - BA					
		Stock	Sub-Industry	Sector	S&P 500
P/S F12M	Current	1.67	1.36	1.84	4.27
	5-Year High	2.33	1.64	1.84	4.3
	5-Year Low	0.6	0.6	0.6	0.6

EV/EBITDA F12M	5-Year Low	0.59	0.95	0.93	3.17
	5-Year Median	1.58	1.28	1.25	3.67
	Current	33.15	16.23	17.25	15.04
	5-Year High	47.31	16.44	17.25	15.48
	5-Year Low	6.67	7.73	6.73	10.69
EV/SALES TTM	5-Year Median	12.86	10.16	9.23	13.28
	Current	2.58	1.84	2.32	4.28
	5-Year High	2.69	1.95	2.38	4.28
	5-Year Low	0.72	0.96	1.05	2.62
	5-Year Median	1.85	1.55	1.6	3.58

As of 12/02/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 10% (229 out of 254)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
General Dynamics Corporation (GD)	Neutral	3
Leidos Holdings, Inc. (LDOS)	Neutral	3
L3Harris Technologies Inc (LHX)	Neutral	3
Lockheed Martin Corporation (LMT)	Neutral	3
Northrop Grumman Corporation (NOC)	Neutral	4
Safran SA (SAFRY)	Neutral	3
Textron Inc. (TXT)	Neutral	2
Raytheon Technologies Corporation (RTX)	Underperform	4

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

Industry Comparison Industry: Aerospace - Defense				Industry Peers		
	BA	X Industry	S&P 500	GD	LMT	TXT
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	2
VGM Score	F	-	-	A	A	C
Market Cap	126.37 B	13.96 B	26.13 B	44.01 B	101.10 B	10.56 B
# of Analysts	7	6.5	13	7	10	6
Dividend Yield	0.00%	0.01%	1.47%	2.87%	2.88%	0.17%
Value Score	F	-	-	B	B	B
Cash/Price	0.23	0.11	0.07	0.03	0.04	0.26
EV/EBITDA	196.71	12.02	14.58	9.56	12.02	7.69
PEG F1	NA	2.22	2.76	2.51	2.22	8.61
P/B	NA	3.51	3.53	2.99	20.28	1.84
P/CF	413.45	11.89	13.75	10.30	13.74	8.19
P/E F1	NA	15.67	21.92	13.86	14.76	24.36
P/S TTM	2.08	1.22	2.82	1.15	1.57	0.88
Earnings Yield	-4.12%	4.86%	4.40%	7.21%	6.77%	4.10%
Debt/Equity	-4.96	0.68	0.70	0.68	2.34	0.67
Cash Flow (\$/share)	0.54	2.73	6.94	14.89	26.30	5.63
Growth Score	F	-	-	B	A	D
Historical EPS Growth (3-5 Years)	-8.83%	13.87%	9.72%	5.46%	18.98%	4.86%
Projected EPS Growth (F1/F0)	-165.75%	2.10%	0.83%	-7.65%	11.52%	-49.38%
Current Cash Flow Growth	-97.35%	11.64%	5.23%	3.16%	18.08%	0.31%
Historical Cash Flow Growth (3-5 Years)	-48.30%	7.38%	8.33%	6.36%	9.70%	3.22%
Current Ratio	1.42	1.31	1.38	1.29	1.33	2.33
Debt/Capital	NA%	40.52%	42.00%	40.41%	70.07%	40.24%
Net Margin	-7.34%	4.30%	10.44%	8.33%	10.18%	2.26%
Return on Equity	-3.08%	8.69%	15.07%	23.00%	173.43%	8.69%
Sales/Assets	0.40	0.76	0.50	0.75	1.30	0.77
Projected Sales Growth (F1/F0)	-24.50%	0.00%	0.30%	-2.66%	9.25%	-16.53%
Momentum Score	D	-	-	B	A	A
Daily Price Change	5.09%	0.64%	0.16%	1.05%	-0.99%	1.10%
1-Week Price Change	8.46%	2.62%	2.18%	2.49%	1.72%	4.60%
4-Week Price Change	47.63%	16.44%	8.92%	10.25%	-2.90%	21.20%
12-Week Price Change	39.23%	16.28%	12.72%	4.91%	-6.20%	19.73%
52-Week Price Change	-35.83%	-9.05%	6.38%	-13.89%	-6.04%	2.42%
20-Day Average Volume (Shares)	26,547,046	744,029	2,099,515	1,328,608	1,217,123	1,251,249
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.06%	0.00%	0.18%
EPS F1 Estimate 4-Week Change	0.00%	0.00%	0.00%	0.06%	0.20%	1.97%
EPS F1 Estimate 12-Week Change	8.72%	1.08%	3.60%	0.17%	1.23%	24.40%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	0.16%	0.61%	4.66%

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	F
Growth Score	F
Momentum Score	D
VGM Score	F

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

Disclosures

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ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

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Additional Disclosure

This material represents an assessment of the market and economic environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. Forward-looking statements are subject to certain risks and uncertainties. Any statements that refer to expectations, projections or characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

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 a the per share market value of a company divided by the value of its tangible assets (total assets – liabilities – preferred stocks – intangible assets) per share. Tangible book value is the same thing as book value except it excludes the value of intangible assets to get a step closer to the baseline value of the company.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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