

# **Air Products (APD)**

\$290.71 (As of 09/25/20)

Price Target (6-12 Months): \$305.00

Long Term: 6-12 Months	Zacks Recor	Neutral			
	(Since: 02/07/20)				
	Prior Recommendation: Outperform				
Short Term: 1-3 Months	Zacks Rank: (1-5) Zacks Style Scores:		3-Hold		
			VGM:D		
	Value: D	Growth: C	Momentum: D		

## Summary

Earnings estimates for Air Products for the fiscal fourth quarter have been stable over the past month. Strategic investments in high-return projects, cost-saving actions, new business deals and acquisitions are expected to drive the company's results in fiscal 2020. It is also seeing positive impact of its productivity actions. Also, it is committed to maximize returns to shareholders. Air Products has also outperformed the industry over a year. However, it faces challenges from lower merchant volumes in the Americas and EMEA. Lower industrial activities due to coronavirus-induced disruptions are hurting volumes. The company is also exposed to headwind from unfavorable currency swings. Higher maintenance costs are also likely to hurt margins in the fiscal fourth quarter. High debt level and stretched valuation are other concerns.

### **Data Overview**

52-Week High-Low	\$310.74 - \$167.43
20-Day Average Volume (Shares)	861,888
Market Cap	\$64.2 B
Year-To-Date Price Change	23.7%
Beta	0.89
Dividend / Dividend Yield	\$5.36 / 1.8%
Industry	Chemical - Diversified
Zacks Industry Rank	Top 44% (109 out of 250)

Last EPS Surprise	-2.0%
Last Sales Surprise	-0.9%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	11/05/2020
Earnings ESP	0.0%
P/E TTM	34.4
P/E F1	34.7
PEG F1	2.9
P/S TTM	7.3

## Price, Consensus & Surprise



## Sales and EPS Growth Rates (Y/Y %)



## Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	2,478 E	2,543 E	2,527 E	2,622 E	9,544 E
2020	2,255 A	2,216 A	2,065 A	2,221 E	8,796 E
2019	2,224 A	2,188 A	2,224 A	2,283 A	8,919 A

## **EPS Estimates**

	Q1	Q2	Q3	Q4	Annual*
2021	\$2.26 E	\$2.35 E	\$2.42 E	\$2.54 E	\$9.85 E
2020	\$2.14 A	\$2.04 A	\$2.01 A	\$2.20 E	\$8.39 E
2019	\$1.86 A	\$1.92 A	\$2.17 A	\$2.27 A	\$8.21 A

<sup>\*</sup>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 09/25/2020. The reports text is as of 09/28/2020.

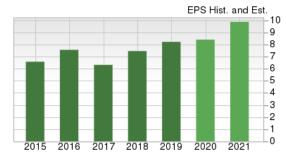
#### Overview

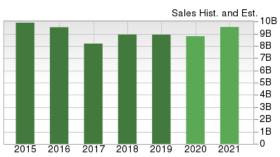
Pennsylvania-based Air Products and Chemicals Inc. makes industrial gases as well as a variety of polymer and performance chemicals. It also supplies processing equipment. Air Products' reporting segments are as follows:

Industrial Gases – Americas (43% of fiscal 2019 sales), Industrial Gases – Europe, Middle East, and Africa/EMEA (23%) and Industrial Gases – Asia (30%) segments include the results of the company's regional industrial gases businesses. These businesses sell atmospheric gases such as oxygen, nitrogen and argon and processes gases to a number of industries. Process gases such as carbon di oxide, helium, hydrogen, etc. are produced by other methods that exclude air separation. The largest cost component of the atmospheric gases is electricity.

The Americas segment operates through more than 400 distribution and production facilities in the South and North America. The EMEA division operates through 180 distribution and production facilities in the Europe, Middle East and Africa. The Asia unit operates from more than 170 facilities in the region.

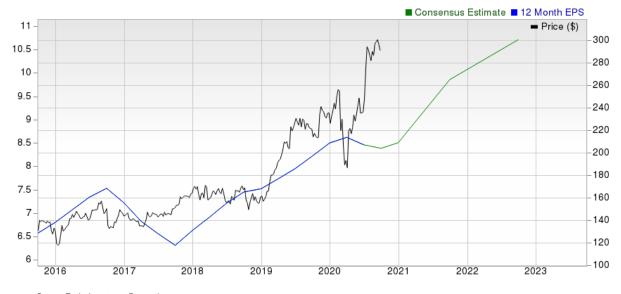
The Industrial Gases – Global (3%) division designs and manufactures cryogenic and gas-processing equipment for air separation. It has majority or fully-owned subsidiaries in Canada, Asian countries, European countries, Latin American countries, African countries and in the Middle East.





The Corporate and other (1%) segment includes Air Products' liquefied natural gas (LNG) sale of equipment business and helium storage and distribution vessel sale of equipment business, the polyurethane intermediates (PUI) business which the company exited in early fiscal 2014 as well as corporate support functions that benefit all the divisions.

In February 2019, the company successfully achieved the mechanical completion of the world's largest industrial gas complex in Jazan, Saudi Arabia. The industrial gas complex is expected to be onstream in phases in 2019. Notably, this is one of the largest projects executed by Air Products till date and demonstrates its engineering capabilities and expertise.



Source: Zacks Investment Research

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## **Reasons To Buy:**

▲ Air Products' shares have gained 31% over a year, outperforming the 2.9% decline of the industry. The spin-off of the Materials Technologies unit has allowed Air Products to direct resources to grow its core and stable industrial gases business. These actions (part of the company's strategic five-point plan) are expected to enable the company to achieve its goal of becoming the safest and most profitable industrial gas company globally. The company has built a strong project backlog. These projects are expected to be accretive to earnings and cash flow as they come on stream over the next few years. The company has total available capacity to deploy (over fiscal 2018-2022) \$17.6 billion in high-return investments, aimed at creating significant shareholder value. These include the Jazan project in Saudi Arabia and the Lu'An syngas joint venture project in China. Air Products expects to complete the \$12-

Air Products has a strong project backlog. Moreover, strategic investments in high-return projects, new business deals, cost cuts and acquisitions should drive its results.

billion Jazan gasification project by October 2020. Moreover, the company's latest project in the United States, which is worth \$500 million, marks its largest investment so far in the country. The project will likely boost the size and supply capacity of Air Products' extensive hydrogen pipeline system in the Gulf Coast.

- ▲ Air Products remains committed to boost productivity to improve its cost structure. The company benefited from its \$600 million cost-cutting program which supported its earnings in fiscal 2018. The company is seeing positive impact of its productivity actions as witnessed in the last reported quarter and expects to continue to benefit from additional productivity and cost improvement programs in fiscal 2020. The company's cost reduction actions are expected to drive cost synergies within the Industrial Gases EMEA unit as well as the Industrial Gases Americas unit.
- ▲ Acquisitions and new business wins are expected to continue to drive results in the near term. The acquisition of a 67% stake in Chilean industrial gas company, Indura S.A. has ushered in substantial growth opportunity for Air Product, placing it as Latin America's second largest industrial gas producer. Moreover, the EPCO acquisition has allowed Air Products expand its market share by offering an extended product portfolio. The buyout of ACP Europe SA, the biggest independent carbon dioxide business in Continental Europe, also enabled Air Products to tap new industrial gas growth opportunities. The company also recently completed the buyout of five steam methane reformer hydrogen production plants for \$530 million from PBF Energy. The PBF deal is expected to be accretive to the company's bottom line in fiscal 2020.
- Air Products remains committed to maximize returns to shareholders leveraging strong balance sheet and cash flows. The company generated more than \$2.7 billion of distributable cash flow during fiscal 2019, up roughly 20% year over year. This distributable cash flow enabled it to pay roughly \$1 billion or around 40% as dividends to shareholders. Air Products' board, earlier this year, also increased its quarterly dividend by more than 15% to \$1.34 per share from \$1.16 per share, marking the largest dividend hike in the company's history. This also marks the 38th straight year of dividend increase. Strong cash flow enables the company to boost shareholders' value by increasing dividends and capital deployment. As such, the company's dividend is perceived to be safe and reliable.

## **Reasons To Sell:**

- ▼ Air Products faces headwind from lower merchant volumes in the Americas and EMEA. Disruptions due to coronavirus hurt merchant volumes across these regions in the last reported quarter. Weak industrial production is hurting merchant volumes. While the company is seeing some recovery of late, depressed volumes are likely to continue to hurt its sales in the fiscal fourth quarter.
- ✓ Air Products is exposed to headwind from unfavorable currency movements. Currency swings had an unfavorable impact of 2% on sales in the last reported quarter, mostly related to Chinese yuan, Chilean peso, Korean won and the euro. Currency had a negative impact on sales across all segments in the quarter. Unfavorable currency impact on the company's adjusted earnings was 5 cents for the quarter. Unfavorable currency translation, due to weaker foreign currencies, may continue to affect the company's sales and margins.
- Air Products faces headwinds from lower merchant volumes in the Americas and EMEA, higher maintenance costs and unfavorable currency swings. Its stretched valuation is another concern.
- ▼ The company high debt level is a concern. It had total debt was \$8,198 million at the end of the fiscal third quarter, up from \$3,312 million at the end of the fiscal second quarter. Its total debt-to-total capital also stood at 40.5% as of Jun 30, 2020, higher than 21.9% as of Mar 31, 2020. As such, the company appears to have a higher default risk.
- ▼ Air Products faces headwind from higher expected maintenance spending in the fiscal fourth quarter. It expects higher maintenance costs for the fourth quarter as a number of planned outages by its customers have been deferred from the fiscal third quarter. Higher costs are likely to affect margins in its Americas business.
- ▼ The company's stretched valuation is another concern. In case of Air Products, the trailing 12-month EV/EBITDA multiple (a preferred valuation metric for cyclical industries) is 19.65 while its industry's trailing 12-month EV/EBITDA multiple is lower at 8.28. As such, investors might not want to pay more for the stock at present.

## **Last Earnings Report**

#### Air Products' Earnings & Sales Lag Estimates in Q3

Air Products logged earnings from continuing operations of \$2.01 per share in third-quarter fiscal 2020 (ended Jun 30, 2020), down roughly 9% from \$2.20 recorded in the year-ago quarter. The bottom line in the reported quarter was hurt by the impacts of the coronavirus outbreak. Earnings per share for the reported quarter also missed the Zacks Consensus Estimate of \$2.05.

The company delivered fiscal third-quarter revenues of \$2,065.2 million, down 7.1% year over year. It also missed the Zacks Consensus Estimate of \$2,083.6 million.

Quarter Ending	06/2020		
Report Date	Jul 23, 2020		
Sales Surprise	-0.88%		
EPS Surprise	-1.95%		
Quarterly EPS	2.01		
Annual EPS (TTM)	8.46		

Pricing increased 2%, which was more than offset by 3% lower volume, 2% unfavorable currency, 9% unfavorable impact from the coronavirus pandemic and 4% lower energy pass-through.

## **Segment Highlights**

Revenues in the Industrial Gases - America segment fell 11% year over year to \$850 million due to lower volume, lower energy pass-through and unfavorable currency.

Sales in the Industrial Gases - EMEA segment decreased 13% year over year to \$430 million. Higher pricing was offset by unfavorable currency, lower energy pass-through and lower volume.

Sales in the Industrial Gases - Asia segment decreased 4% year over year to \$652 million. The downside was due to lower volume and unfavorable currency.

#### **Financials**

Air Products ended the quarter with cash and cash equivalents of \$3,921.4 million, up 45.4% year over year. Long-term debt was up 139.6% year over year to \$7,073.2 million.

Net cash from operating activities was \$2,013.2 million for the nine months ended Jun 30, 2020.

#### Outlook

Air Products said that it will continue to generate value for shareholders over the long term and invest in world-scale, sustainability-focused projects, notwithstanding the challenging environment.

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#### **Recent News**

#### Air Products to Increase Product Prices in North America

Air Products, on **Sep 21, 2020**, announced the increase in product pricing, surcharges and monthly service charges for merchant customers in North America. The price hike is effective as of Oct 1, 2020, or as contracts permit.

The company notified that these adjustments will include increase of monthly service charges of up to 20%, liquid carbon dioxide of up to 15% as well as up to 15% increase for liquid nitrogen and liquid oxygen. Based on certain conditions, some adjustments may be outside of these ranges.

Further, the company will raise the prices of hydrogen, helium and argon based on supply-demand, customer-specific and cost situations.

Air Products is making these pricing adjustments to address increase in sourcing, production and delivery costs. This move will enable the company to support continued investments in security, reliability and safety.

#### Air Products' AP-X Liquefaction Technology Picked by Qatargas

On Aug 4, 2020, Air Products announced that it has been selected to provide Qatargas with its proprietary AP-X Natural Gas Liquefaction Process technology and equipment for the first phase of Qatar Petroleum's massive LNG production expansion project in Ras Laffan, the State of Qatar

Notably, each of the four new LNG process units is expected to have a production capacity of 7.8 million tons per year. Air Products will build the AP-X LNG heat exchangers at its manufacturing facility in Port Manatee, FL.

Per management, AP-X liquefaction technology sets the norms for the industry and delivers the largest LNG process trains in the world. Notably, these AP-X units have a process production capacity of 50% more than any other LNG train in operation.

Further, the proven AP-X process allows considerably higher output of LNG, and offers an effective and flexible operation over a wide variety of production capabilities.

## Air Products Inks Deal for \$5B Green Hydrogen Project

Air Products, on **Jul 7**, **2020**, inked a deal with ACWA Power and NEOM for a \$5-billion green hydrogen-based ammonia manufacturing facility, powered by renewable energy.

The project, which Air Products will own equally with ACWA Power and NEOM, will be situated in northwestern Saudi Arabia and is expected to produce green ammonia for export in global markets.

Scheduled to be onstream in 2025, the project is NEOM's first partnership with leading international and national partners in the renewable energy field.

The joint venture is based on world-class technology and will include the innovative integration of more than four gigawatts of renewable power from solar, wind and storage.

Notably, the project will produce 650 tons of hydrogen per day by electrolysis using Thyssenkrupp technology, nitrogen by air separation using Air Products' technology, and 1.2 million tons per year of green ammonia using Haldor Topsoe technology.

Air Products will be the exclusive off-taker of the green ammonia. Further, the company stated that it plans to transport it globally to produce green hydrogen for the transportation market.

Per Air Products' management, the project will yield a totally clean source of energy on a massive scale and will save more than three million tons of carbon dioxide emissions a year. It will also eliminate smog-forming emissions and other pollutants from the equivalent of more than 700,000 cars.

### Air Products & Thyssenkrupp Ink Green Hydrogen Deal

Air Products, on **Jul 5**, **2020**, inked a cooperation agreement with Thyssenkrupp Uhde Chlorine Engineers to develop projects supplying green hydrogen. Per the agreement, the two companies will use their complementary technology, engineering and project execution expertise to develop projects.

Notably, Thyssenkrupp will provide engineering, equipment and technical services for water electrolysis plants, which Air Products will build, own and operate.

Through the collaboration, Thyssenkrupp will support Air Products' development of green hydrogen, which can be used for sustainable transportation, chemicals and power generation segments.

Per Air Products' management, the cooperation agreement with Thyssenkrupp is a vital element of its value chain in developing, building, owning, and operating world-scale projects and supplying green hydrogen for mobility, energy and industrial applications.

As part of the partnership, Air Products and Thyssenkrupp are expected to deploy economic green hydrogen plants in the gigawatt size.

## **Valuation**

Air Products' shares are up 23.7% in the year-to-date period and up 31% over the trailing 12-month period. Stocks in the Zacks Chemical - Diversified industry and Zacks Basic Materials sector are down 7.5% and 2.6% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are down 2.9% and up 6.3%, respectively.

The S&P 500 index is up 2.4% in the year-to-date period and up 11% in the past year.

The stock is currently trading at 19.65X trailing 12-month enterprise value-to EBITDA (EV/EBITDA) ratio, which compares to 8.28X for the Zacks sub-industry, 7.41X for the Zacks sector and 14.28X for the S&P 500 index.

Over the past five years, the stock has traded as high as 20.94X and as low as 10.65X, with a 5-year median of 12.87X.

Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$305 price target reflects 31X forward 12-month earnings per share.

The table below shows summary valuation data for APD:

		Stock	Sub-Industry	Sector	S&P 500
	Current	19.65	8.28	7.41	14.28
EV/EBITDA TTM	5-Year High	20.94	13.12	18.4	15.65
	5-Year Low	10.65	5.19	6.49	9.53
	5-Year Median	12.87	7.5	10.19	13.06
	Current	29.53	18.06	12.87	21.61
P/E F 12M	5-Year High	31.85	19	21.06	23.46
	5-Year Low	15.28	8.97	9.84	15.26
	5-Year Median	21.62	13.16	13.48	17.63
	Current	5.34	1.89	2.18	5.68
P/B TTM	5-Year High	5.7	2.82	3.07	6.19
	5-Year Low	2.92	0.87	1.23	3.75
	5-Year Median	3.92	1.75	2.21	4.86

As of 09/25/2020

Source: Zacks Investment Research

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# Industry Analysis Zacks Industry Rank: Top 44% (109 out of 250)



Source: Zacks Investment Research

# **Top Peers**

Company (Ticker)	Rec Rank
Dow Inc. (DOW)	Outperform 1
Air Liquide (AIQUY)	Neutral 3
Albemarle Corporation (ALB)	Neutral 3
BASF SE (BASFY)	Neutral 3
Brenntag AG (BNTGY)	Neutral 2
The Chemours Company (CC)	Neutral 3
Linde plc (LIN)	Neutral 2
LyondellBasell Industries N.V. (LYB)	Neutral 3

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

Industry Comparison Industry: Chemical - Diversified			Industry Peers			
	APD	X Industry	S&P 500	AIQUY	BASFY	LIN
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutra
Zacks Rank (Short Term)	3	-	-	3	3	2
VGM Score	D	-	-	С	В	D
Market Cap	64.22 B	2.45 B	23.02 B	74.35 B	53.41 B	122.28 E
# of Analysts	7	3	14	3	3	3
Dividend Yield	1.84%	1.82%	1.69%	1.40%	4.59%	1.65%
Value Score	D	-	-	D	Α	D
Cash/Price	0.10	0.11	0.07	0.02	0.10	0.04
EV/EBITDA	18.56	7.96	12.89	NA	7.17	16.78
PEG F1	2.97	3.45	2.88	4.77	NA	2.72
P/B	5.34	1.73	3.15	3.42	1.26	2.55
P/CF	22.07	6.52	12.43	15.10	6.10	14.59
P/E F1	35.04	20.22	21.02	27.65	23.08	29.94
P/S TTM	7.28	0.88	2.38	NA	0.81	4.50
Earnings Yield	2.89%	4.85%	4.52%	3.63%	4.33%	3.34%
Debt/Equity	0.61	0.61	0.70	0.72	0.43	0.23
Cash Flow (\$/share)	13.17	3.35	6.93	2.08	2.38	15.95
Growth Score	С	-	-	В	С	С
Historical EPS Growth (3-5 Years)	4.94%	8.82%	10.41%	NA	-4.75%	NA.
Projected EPS Growth (F1/F0)	2.24%	-20.25%	-4.56%	6.23%	-43.75%	5.91%
Current Cash Flow Growth	10.98%	-8.71%	5.26%	7.05%	-19.09%	33.98%
Historical Cash Flow Growth (3-5 Years)	5.70%	6.32%	8.49%	6.71%	-3.10%	23.52%
Current Ratio	3.48	1.89	1.35	0.91	1.62	0.80
Debt/Capital	37.97%	38.09%	42.92%	41.96%	30.27%	18.79%
Net Margin	21.58%	3.82%	10.25%	NA	1.81%	8.37%
Return on Equity	15.96%	10.78%	14.59%	NA	6.85%	8.27%
Sales/Assets	0.43	0.75	0.50	NA	0.66	0.32
Projected Sales Growth (F1/F0)	-1.38%	-4.57%	-1.44%	-0.48%	-2.75%	-4.80%
Momentum Score	D	-	-	D	D	F
Daily Price Change	0.25%	0.00%	1.35%	-0.79%	-0.60%	-0.75%
1-Week Price Change	-1.50%	1.34%	0.79%	-1.37%	-1.60%	-1.63%
4-Week Price Change	-0.70%	-0.30%	-4.19%	-4.64%	-4.67%	-7.25%
12-Week Price Change	17.50%	8.26%	3.17%	5.40%	2.23%	5.19%
52-Week Price Change	30.19%	-6.63%	-1.37%	22.04%	-13.98%	21.03%
20-Day Average Volume (Shares)	861,888	73,548	2,095,310	72,223	211,150	1,846,553
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	-1.01%	3.53%	4.08%	8.25%	-12.50%	5.34%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	NA	0.00%	0.00%

Source: Zacks Investment Research

### **Zacks Stock Rating System**

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

## **Zacks Recommendation**

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we maintain a balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

### **Zacks Rank**

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

## **Zacks Style Scores**

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.



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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#### **Additional Disclosure**

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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 mediumterm 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 4week 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 longterm 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 mostrecent 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 longterm 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.

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**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.