

Applied Materials (AMAT)

\$136.98 (As of 06/16/21)

Price Target (6-12 Months): **\$144.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/29/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:D

Value: D

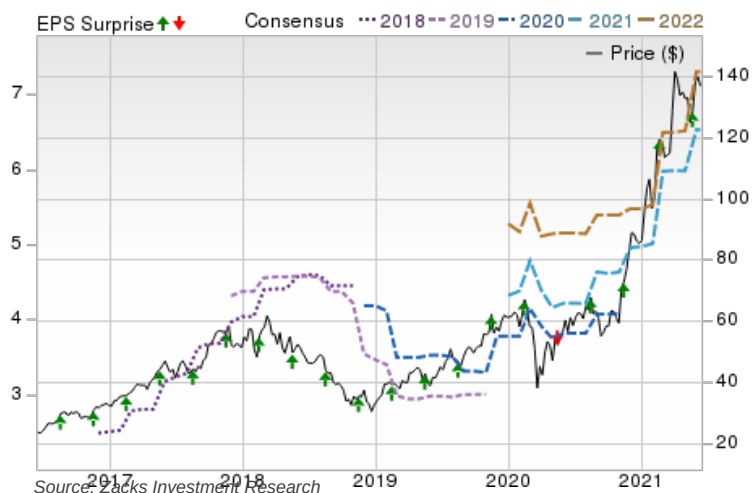
Growth: C

Momentum: C

Summary

Applied Materials is driven by strong momentum across Semiconductor Systems and Applied Global Services. Further, solid demand for silicon in several applications across various markets remains a tailwind. Additionally, growing momentum among long-term service agreements is contributing well. Furthermore, increased customer spending in foundry and logic on the back of rising need for specialty nodes in automotive, power, 5G rollout, IoT, communications and image sensor markets, is a major positive. Also, strong momentum in conductor etches is benefiting the company's position in DRAM and NAND. Notably, the stock has outperformed its industry on a year-to-date basis. However, market uncertainties continue to persist. Further, mounting expenses are concerns. Also, rising competition poses risk to the company's market position.

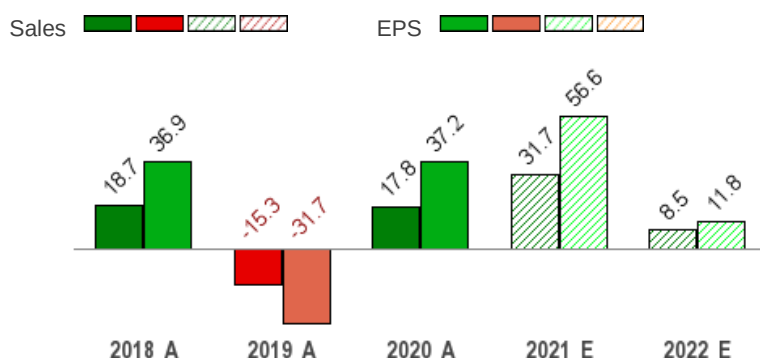
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$146.00 - \$54.15
20-Day Average Volume (Shares)	8,422,918
Market Cap	\$125.2 B
Year-To-Date Price Change	58.7%
Beta	1.45
Dividend / Dividend Yield	\$0.96 / 0.7%
Industry	Semiconductor Equipment - Wafer Fabrication
Zacks Industry Rank	Top 10% (26 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	8.0%
Last Sales Surprise	3.5%
EPS F1 Estimate 4-Week Change	8.7%
Expected Report Date	08/12/2021
Earnings ESP	0.0%
P/E TTM	25.7
P/E F1	21.0
PEG F1	2.3
P/S TTM	6.3

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	6,033 E	6,253 E	6,401 E	6,260 E	24,572 E
2021	5,162 A	5,582 A	5,920 E	5,985 E	22,650 E
2020	4,162 A	3,957 A	4,395 A	4,688 A	17,202 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$1.78 E	\$1.85 E	\$1.89 E	\$1.82 E	\$7.30 E
2021	\$1.39 A	\$1.63 A	\$1.76 E	\$1.78 E	\$6.53 E
2020	\$0.98 A	\$0.89 A	\$1.06 A	\$1.25 A	\$4.17 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and sales estimates, is as of 06/16/2021. The report's text and the

analyst-provided price target are as of 06/17/2021.

Overview

Headquartered in Santa Clara, California, Applied Materials is one of the world's largest suppliers of equipment for the fabrication of semiconductor, flat panel liquid crystal displays (LCDs), and solar photovoltaic (PV) cells and modules. The company also offers deployment and support services related to the equipment supplied.

In fiscal year 2020, Applied reported results in three segments—Semiconductor Systems (62% of total 2020 revenue), Applied Global Services (26%) and Display and Adjacent Markets (12%).

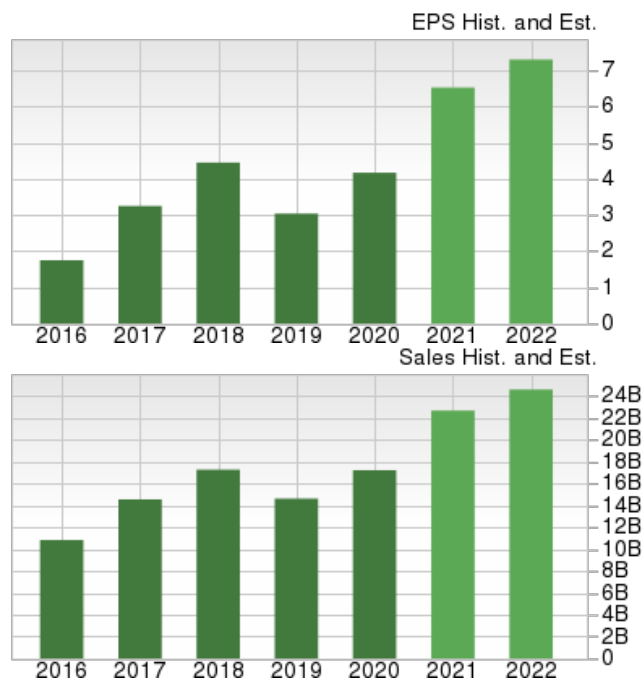
Applied Materials' Silicon segment offers equipment for front-end operations in the semiconductor manufacturing process. Front-end processes involve the deposition or implantation of multiple thin layers of electronically conductive, semiconductive and insulating materials onto and within a silicon wafer with the help of photomasks (reticles) to give multiple copies of integrated circuit devices.

With over 33,000 systems installed, the Applied Global Services segment goes a long way to ensure customer satisfaction and support. There are primarily three kinds of services offered.

Applied has developed technologies for significantly larger-sized wafers made of materials other than silicon. This has helped it expand its portfolio into equipment for thin film transistor (TFT) LCDs (made from glass) and OLED, which are used in smartphones, TVs and other consumer electronic devices. The company operates this business under the Display segment.

The Energy and Environmental Solutions segment primarily consists of the solar product line. Currently, the company offers equipment for manufacturing both wafer-based crystalline silicon (c-Si) and glass-based thin film used in the solar PV cell fabrication process.

Being a leading producer of specialized equipment, most of the competition comes from other large equipment makers, such as KLAC and LRCX.



Reasons To Buy:

- ▲ The company's **semiconductor business** continues to be on the growth trajectory with significant design wins. Moreover, the company's AI Design Forum bodes well for its strong focus toward development of new computing materials and designs. In fact, the company's leadership businesses comprising Epi, PVD, Implant, CMP and RTP, boast high market share and unique capabilities. The company is quite optimistic as these businesses deliver important technology that will enable customers to drive major innovations in transistor and interconnect for 10-nanometer (nm) devices. Applied Materials is also well positioned in etch and CVD. The company is positive about the increase in foundry spending and some shifts in customer mix. NAND too is gaining, with its increasing application in cloud computing and building on the existing potential in mobile. The industry's transition to 3D NAND is helping the company to further expand the served available market. In order to maintain Moore's Law and further shrink devices, semiconductor companies have had to innovate on not just the process side but also on materials technology, thus expanding the wafer fab equipment. This is naturally a big positive for an equipment supplier such as Applied because it expands the total wafer fab equipment market thus increasing opportunities. Going forward, the company expects to strengthen its position even further in this area. Furthermore, the emergence of data centers will continue to be a major contributor to the company's top-line growth with the growing demand for DRAM by the cloud service providers.
- ▲ Applied Materials is a **global leader in semiconductor equipment sales**. The company is the number one equipment supplier to the global semiconductor industry. AMAT has been the industry leader for over twenty years, and is strongly positioned in the industry.
- ▲ Market dynamics appear to be improving. Being an equipment company offering products for front-end applications, Applied is dependent on wafer starts at new and existing semiconductor facilities. Therefore, in an up cycle, the company would be able to sell its superior quality products and maybe pick up some market share. Through the rest of the cycle however, market share gains if any would be slow. Considering this backdrop and the fab build rate, the company may see a gradual improvement going forward.
- ▲ The company has been gaining considerable success in expanding beyond semiconductors. The company is in a very good position to take advantage of the transition from LCD to OLED technology. Rapid growth in large-format TVs has opened up opportunities to invest in new Gen 10.5 capacity and Applied Materials is currently tracking seven Gen 10.5 projects. Applied is well positioned to take advantage of growth in mobile. Demand for bigger, higher resolution and low-power screens for mobiles will primarily drive the Display segment. The company sees significant opportunities from emerging trends on the semiconductor and display fronts such as artificial intelligence, big data, cloud infrastructure, Internet of Things (IoT), virtual reality and smart vehicles. Further, rising demand for mobile OLEDs and large screen televisions are creating significant growth opportunities for the company. Applied's expanding product line is partly responsible for the increased total available market (TAM), which will spur growth in the following quarters. Continued price declines should also help sales. Since emerging markets are expected to account for most of the growth, we may expect continued demand for the company's equipment, which could improve the efficiency of the manufacturing process.
- ▲ Even though the current global economic risks prevail, spending in China is expected to increase. The company remains strongly positioned in China where it continues to see strong growth in semiconductor and display. Growing investments from Chinese domestic manufacturers have been the main catalysts. The company is witnessing growth in revenues and orders, both from local manufacturers as well as multinational customers who are expanding their footprint. Applied Materials is well positioned to benefit from this as it was the first in the industry to establish a presence in China more than 30 years ago. It therefore has strong customer relationships and the requisite talent to support the new projects.

Ongoing strength in the 3D NAND market, demand for new technologies, 10nm logic processes, innovation strategy, strength in foundry and growth in the Chinese market will drive the business.

Reasons To Sell:

- ▼ Capital equipment sales are typically high-value and AMAT is dependent on a relatively **few high-value product sales to a limited customer base**. Therefore, winning each individual order is very important. Moreover, the company also has to adopt an extremely customer-centric approach, maintaining very good relations with each individual customer. Losing a sale or a customer would have a significant impact on results. In difficult times, the company might also have to write off receivables to accommodate customers, as it has done in the past.
- ▼ The company has a **high fixed cost structure**. Therefore, margins suffer a lot when sales fall. On the other hand, the structure is necessary to support an increase in demand. Additionally, Applied Materials has to spend a considerable amount of money on R&D to maintain its edge in innovation and recover margins that are high enough to continue this spend.
- ▼ Growth depends on the company's ability to innovate. Applied Materials is **vulnerable to intense competition and changing technology, commercialization methods, industry standards and seller and buyer needs**. These call for frequent changes in product and service offerings, which in turn require heavy investments, putting pressure on its earning capacity.

Applied's high fixed cost structure, customer concentration, slowing smartphone market, weak chip demand, uncertain global economy and exposure to unpredictable industrial changes are concerns.

Last Earnings Report

Applied Materials' Q2 Earnings & Revenues Beat

Applied Materials reported second-quarter fiscal 2021 non-GAAP earnings of \$1.63 per share, which surpassed the Zacks Consensus Estimate by 7.9%. Moreover, the bottom line improved 17.3% sequentially and jumped 83% year over year.

Net sales of \$5.6 billion surpassed the Zacks Consensus Estimate of \$5.4 billion. Also, the top line rose 41% from the year-ago period as well as 8.1% from the previous quarter.

Strong performance delivered by all the segments, especially Semiconductor Systems, drove the company's top line. Increasing demand for silicon in several applications across various markets remained a major tailwind.

Further, the company witnessed a solid momentum in key geographies, namely United States, Europe, Korea, Southeast Asia and China, which remained another positive.

Management believes that the demand for foundry logic is expected to remain strong in the near term, courtesy of the rising need for specialty nodes in automotive, power, 5G rollout, IoT, communications and image sensor markets.

In addition, the company expects DRAM spending to increase in the days ahead.

Segments in Detail

Semiconductor Systems generated \$3.97 billion in sales (which contributed 71% to its net sales), reflecting a year-over-year increase of 39%. This was driven by growing traction across etch, process control, inspection, metal deposition systems and chemical-mechanical planarization (CMP).

Applied Global Services reported sales of \$1.2 billion (22% of net sales), which increased 18% from the prior-year quarter. Strong growth in the services business, owing to solid momentum among long-term service agreements drove the top line for the segment.

Sales from Display and Adjacent Markets were \$375 million (7% of net sales), up 3% from the year-ago level. The growing usage of OLED technology in several devices, such as smartphones, especially 5G phones equipped with OLED screens, televisions and notebooks, contributed well.

Revenues by Geography

The United States, Europe, Japan, Korea, Taiwan, Southeast Asia and China generated sales of \$489 million, \$229 million, \$442 million, \$1.4 billion, \$1.04 billion, \$109 million and \$1.8 billion, contributing 9%, 4%, 8%, 25%, 19%, 2% and 33% to net sales, respectively.

On a year-over-year basis, sales in United States, Europe, Korea, Taiwan, Southeast Asia and China increased 47.7%, 26.5%, 89.6%, 1.2%, 87.9% and 62%, respectively. Notably, sales in the Japan fell 5.3% from the year-ago quarter, respectively.

Operating Results

Non-GAAP gross margin was 47.7%, expanding 310 basis points (bps) from the year-ago quarter.

Operating expenses were \$1.1 billion, up 31.5% from the year-ago quarter. As a percentage of sales, the figure contracted 140 bps year over year to 19.2%.

Non-GAAP operating margin of 31.7% for the reported quarter expanded 700 bps from the prior-year period.

Balance Sheet & Cash Flow

As of May 2, 2020, cash and cash equivalent balance, and short-term investments were \$6.8 billion compared with \$6.6 billion as of Jan 31, 2020.

Inventories were \$4.1 billion in the fiscal second quarter compared with \$3.9 billion in the fiscal first quarter. Accounts receivables increased to \$3.4 billion in the reported quarter from \$3.04 billion in the previous quarter.

Long-term debt was \$5.5 billion at the end of the reported quarter compared with \$5.4 billion at the end of the previous quarter.

Applied Materials generated a cash flow of \$1.2 billion, down from \$1.4 billion in the prior quarter.

The company returned \$952 million to shareholders out of which it repurchased shares worth \$750 million and made dividend payment worth \$202 million.

Quarter Ending	04/2021
Report Date	May 20, 2021
Sales Surprise	3.52%
EPS Surprise	7.95%
Quarterly EPS	1.63
Annual EPS (TTM)	5.33

Guidance

For third-quarter fiscal 2021, Applied Materials expects net sales of \$5.92 (+/- \$200 million).

Non-GAAP EPS is expected to be \$1.70 to \$1.82.

Recent News

On **May 5, 2021**, Applied Materials introduced materials engineering solutions that aid in scaling DRAM, reducing power and bringing improvement in area, cost and time which in turn will bolster the chip performance.

On **Apr 5, 2021**, Applied Materials introduced Alx, which stands for Actionable Insight Accelerator. Notably, Alx is a platform powered by big data and AI, which helps in the development and deployment of new chip technologies by allowing engineers to check semiconductor processes in real-time.

On **Mar 29, 2021**, Applied Materials revealed about the termination of Kokusai Electric Corporation share purchase agreement as it did not receive confirmation of timely approval from the regulator in China.

On **Mar 16, 2021**, Applied Materials unveiled New Enlight Optical Wafer Inspection System which aids in accelerating node development process with the help of new optics that capture more yield data from every wafer.

Valuation

Applied Materials shares are up 58.7% in the year-to-date period and 126.9% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 44.8% and 14.9% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and the sector are up 102.8% and 46.7%, respectively.

The S&P 500 index is up 13.3% in the year-to-date period and 37.7% in the past year.

The stock is currently trading at 19.53X forward 12-month earnings, which compares to 28.35X for the Zacks sub-industry, 27.41X for the Zacks sector and 21.71X for the S&P 500 index.

Over the past five years, the stock has traded as high as 23.09X and as low as 7.38X, with a 5-year median of 13.69X. Our Neutral recommendation indicates that the stock will perform inline with the market. Our \$144 price target reflects 20.53X forward 12-month earnings.

The table below shows summary valuation data for AMAT

Valuation Multiples - AMAT					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	19.53	28.35	27.41	21.71
	5-Year High	23.09	31.12	28.35	23.83
	5-Year Low	7.38	12.36	16.99	15.31
	5-Year Median	13.69	18.19	20.24	18.05
P/S F12M	Current	5.25	10.51	4.89	4.7
	5-Year High	5.9	10.51	4.89	4.74
	5-Year Low	1.77	3.64	2.81	3.21
	5-Year Median	3.01	5.22	3.53	3.72
EV/EBITDA TTM	Current	25.25	42.03	16.42	17.34
	5-Year High	24.33	43.25	17.18	17.74
	5-Year Low	4.6	9.4	9.07	9.63
	5-Year Median	12.2	21.22	12.48	13.47

As of 06/16/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Top 10% (26 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
ASML Holding N.V. (ASML)	Outperform	2
Lam Research Corporation (LRCX)	Outperform	1
MACOM Technology Solutions Holdings, Inc. (MTSI)	Outperform	2
Analog Devices, Inc. (ADI)	Neutral	3
Advanced Energy Industries, Inc. (AEIS)	Neutral	4
KLA Corporation (KLAC)	Neutral	2
TE Connectivity Ltd. (TEL)	Neutral	3
Veeco Instruments Inc. (VECO)	Neutral	3

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

Industry Comparison Industry: Semiconductor Equipment - Wafer Fabrication				Industry Peers		
	AMAT	X Industry	S&P 500	AEIS	ASML	LRCX
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Outperform
Zacks Rank (Short Term)	2	-	-	4	2	1
VGM Score	D	-	-	A	F	F
Market Cap	125.20 B	108.15 B	29.96 B	4.04 B	293.47 B	91.10 B
# of Analysts	9	6	12	4	3	7
Dividend Yield	0.70%	0.58%	1.3%	0.38%	0.45%	0.81%
Value Score	D	-	-	B	F	F
Cash/Price	0.05	0.06	0.05	0.13	0.02	0.06
EV/EBITDA	25.91	28.80	17.13	18.57	56.55	31.69
PEG F1	2.33	1.17	2.12	NA	1.53	0.73
P/B	10.44	13.70	4.17	4.77	17.86	16.95
P/CF	29.64	32.29	17.46	16.77	63.53	34.95
P/E F1	20.98	22.46	21.27	18.72	45.61	23.92
P/S TTM	6.31	6.59	3.46	2.78	15.76	6.86
Earnings Yield	4.77%	4.47%	4.62%	5.34%	2.19%	4.18%
Debt/Equity	0.45	0.40	0.66	0.35	0.34	0.93
Cash Flow (\$/share)	4.62	8.63	6.83	6.27	11.00	18.28
Growth Score	C	-	-	A	D	D
Historical EPS Growth (3-5 Years)	17.86%	21.29%	9.44%	6.37%	25.73%	24.72%
Projected EPS Growth (F1/F0)	56.52%	62.17%	21.49%	7.36%	58.17%	67.45%
Current Cash Flow Growth	30.36%	33.00%	0.86%	109.65%	35.63%	0.36%
Historical Cash Flow Growth (3-5 Years)	18.22%	19.07%	7.28%	20.11%	19.92%	15.52%
Current Ratio	3.10	3.12	1.39	3.18	2.31	3.13
Debt/Capital	31.25%	28.72%	41.51%	26.19%	25.38%	48.15%
Net Margin	22.35%	24.21%	11.95%	10.69%	28.37%	26.07%
Return on Equity	45.08%	39.50%	16.48%	26.01%	33.91%	65.20%
Sales/Assets	0.87	0.88	0.51	0.88	0.62	0.88
Projected Sales Growth (F1/F0)	31.67%	33.90%	9.41%	5.65%	36.12%	44.23%
Momentum Score	C	-	-	B	D	D
Daily Price Change	-1.20%	-0.56%	-0.54%	-0.04%	-0.39%	-0.74%
1-Week Price Change	-2.17%	-0.16%	0.10%	1.70%	2.01%	-2.01%
4-Week Price Change	9.76%	10.23%	2.62%	10.69%	10.82%	6.07%
12-Week Price Change	13.11%	14.37%	8.60%	3.20%	20.82%	15.62%
52-Week Price Change	128.30%	98.23%	35.66%	58.39%	92.89%	103.56%
20-Day Average Volume (Shares)	8,422,918	884,548	1,734,994	224,682	664,842	1,104,253
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

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

EPS F1 Estimate 4-Week Change	8.72%	0.65%	0.05%	0.26%	1.03%	0.01%
EPS F1 Estimate 12-Week Change	8.96%	8.31%	3.39%	-6.82%	23.01%	7.66%
EPS Q1 Estimate Monthly Change	12.50%	0.28%	0.00%	0.54%	0.00%	0.02%

Source: Zacks Investment Research

Zacks Stock Rating System

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

Zacks Recommendation

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

Zacks Rank

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

Zacks Style Scores

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

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

Value Score	D
Growth Score	C
Momentum Score	C
VGM Score	D

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

Disclosures

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

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

proportionate to its market value.

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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