

KLA Corporation (KLAC)

\$207.57 (As of 08/28/20)

Price Target (6-12 Months): **\$240.00**

Long Term: 6-12 Months

Zacks Recommendation:

Outperform

(Since: 08/05/20)

Prior Recommendation: Neutral

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:C

Value: D

Growth: B

Momentum: D

Summary

KLA is driven by a strong process control market, revenue diversification and customer acceptance of key products. Moreover, growing Foundry and Logic investments remain major positives. Markedly, transition to advanced nodes and the insertion of EUV lithography are expected to drive growth in the near future. Additionally, enhanced wafer cleanliness and geometry specifications in the bare wafer market are driving demand for the company's wafer products. Notably, the stock has outperformed the industry it belongs to on a year-to-date basis. However, it is suffering from ongoing memory pushout in the semiconductor industry, which poses a serious threat to shipments. Further, softness in a few international regions served by the company remains a concern.

Price, Consensus & Surprise

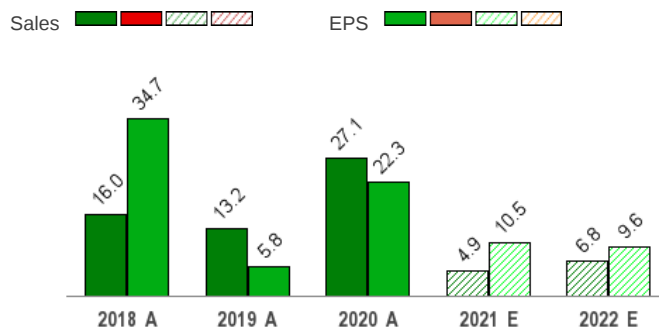


Source: Zacks Investment Research

Data Overview

52-Week High-Low	\$218.57 - \$110.19
20-Day Average Volume (Shares)	1,065,084
Market Cap	\$32.4 B
Year-To-Date Price Change	17.1%
Beta	1.32
Dividend / Dividend Yield	\$3.60 / 1.7%
Industry	Electronics - Miscellaneous Products
Zacks Industry Rank	Top 47% (119 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	16.2%
Last Sales Surprise	4.0%
EPS F1 Estimate 4-Week Change	16.6%
Expected Report Date	NA
Earnings ESP	0.0%
P/E TTM	20.2
P/E F1	18.1
PEG F1	1.6
P/S TTM	5.6

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	1,574 E	1,593 E	1,673 E	1,758 E	6,502 E
2021	1,482 E	1,510 E	1,551 E	1,593 E	6,090 E
2020	1,413 A	1,509 A	1,424 A	1,460 A	5,806 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$2.98 E	\$3.05 E	\$3.23 E	\$3.46 E	\$12.54 E
2021	\$2.75 E	\$2.81 E	\$2.90 E	\$3.03 E	\$11.44 E
2020	\$2.48 A	\$2.66 A	\$2.47 A	\$2.73 A	\$10.35 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 08/28/2020. The reports text is as of 08/31/2020.

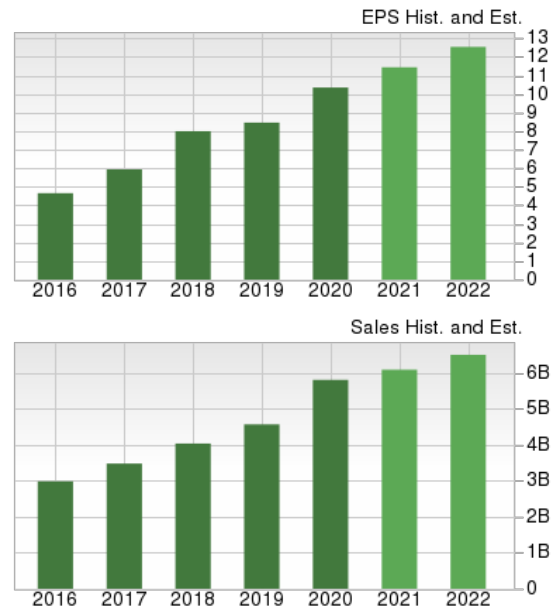
Overview

San Jose, CA-based KLA Corporation is an original equipment manufacturer (OEM) of process diagnostics and control (PDC) equipment and yield management solutions required for the fabrication of semiconductor integrated circuits (ICs) or chips. The firm has a comprehensive portfolio of products addressing each major PDC subsegment—photomask (reticle) inspection, wafer inspection/defect review and metrology.

Reticle production is vital to the semiconductor device formation process. Reticles are used to control the precise deposition of materials onto the wafer, which ultimately change its chemical characteristics, imparting specific functionalities to the ICs thus created. Inspection and metrology tools measure the quality of the reticles, helping to improve reticle production yields. As a result of the broader applicability of semiconductors, shrinking form factors and increasing functionalities of individual chips, reticle design and production are growing in importance. Intel and Taiwan Semiconductor were the largest customers in the last three years, accounting for more than 10% of total sales in each year. The two main product lines are defect inspection and metrology. KLA's defect inspection tools have very broad application in chip, wafer, reticle, storage, compound semiconductor and MEMS manufacturing. Metrology tools are used to gather critical dimension measurements of the wafer and process dimensions such as film thickness, lithography overlay and surface profiling. The company's metrology products are used in chip, wafer, reticle and solar device manufacturing. KLA also offers other products and services.

In addition to new tools, the company also offers a comprehensive portfolio of refurbished tools that upgrade and improve yields of existing equipment under the KT-Certified program. Refurbished tools are currently sold to IC, reticle, substrate, MEMS and data storage manufacturers.

Although the company is a major player in each of its served markets, it faces competition from other large equipment suppliers such as Applied Materials and Hitachi High-Technologies Corporation.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ KLA is a major player in each of its served markets. The company offers **complete yield management solutions**, including hardware, software and services that help improve the output and reduce overall production costs. Cost reduction is of primary importance today, as increasing competition across all growing end markets leads to demand for lower-cost components. Since yield management solutions improve manufacturing costs, demand for these products remains strong at any point in the business cycle. Therefore, the company's revenues are generally more stable than other equipment suppliers and its performance more steady in recessionary conditions.
- ▲ **Technology transitions** are generally positive for equipment companies, since companies need to extend capacity and tooling to try out new processes and technologies, and improve yields on them. Production ramps only after satisfactory yields are achieved, so demand for yield management solutions are high. There are a number of technology transitions (FinFET, 3D NAND, TSV and multi-patterning) that will drive KLA's demand in the following quarters. The demand for greater densities and efficiencies within chip packages are increasing complexities of semiconductor devices, which will continue to drive demand for yield management solutions.
- ▲ Process control is a critical function for foundries, since they are large-scale manufacturers of semiconductors. With new-age technologies increasing process complexities, foundries are hard-pressed to increase yields sufficiently in order to lower costs. Moreover, with such a large percentage of semiconductors currently going into consumer goods, they are also under pressure to speed up the manufacturing process. This is because consumer goods producers compete on the basis of new products and they also often want very large quantities of products at short notice in order to build a market position. These **market dynamics favor KLAC**, as demand for consumer electronic products (particularly, smartphones and tablets) continues to increase. At the moment, there is a great push to shift production to lower geometries (20nm to 16nm to 14nm), with each transition requiring significant investment in process control equipment, particularly inspection tools. KLA's exposure to the memory segment remains relatively low, but memory typically requires lower investment in process control, so this is not really a prime segment for KLA.
- ▲ KLA has also benefited from its **new product** development strategy. Equipment companies typically work closely with customers, who make the actual purchase long after they have looked at the product and tested its suitability. Therefore, new products are usually an instant success. In the last fiscal year, KLA introduced a number of new front-end defect inspection products that are expected to augment its existing portfolio. KLA's focus on innovation continues to date.

KLA is a major player in each of its served markets. The company offers complete yield management solutions, including hardware, software and services that reduce production cost.

Risks

- The primary concern regarding KLA shares is the **uncertainty regarding the timing of capex spending**. While demand is definitely there, it is not in the markets KLA serves, so will not benefit the company. But since KLA is extremely well positioned at both Samsung and TSM foundries, their expected increase in FinFET-related spending should benefit the company in going forward. Exposure to memory makers like SanDisk, Toshiba, Micron, Hynix, etc has been increasing over time, but it still isn't significant to move the needle for KLA.
 - While not an immediate concern, **e-beam inspection technology** could be disruptive for KLA's inspection tools. The technology has been slow to develop and even now, remains a slower process. However, it does provide material advantages over traditional inspection tools from KLA that could materially improve yields at lower nodes. It is likely that adoption will not speed up overnight, but we would like to see KLA's solution to the problem, especially considering the fact that inspection is a major chunk of its business.
 - **Competition** in the refurbished equipment market is likely to remain. While there are just a handful of suppliers making new tools, the refurbished space is more crowded, with many players including auctioneers, universities and even online sales channels, such as eBay. The number of companies going out of business during the last downturn has increased the supply of used equipment at very attractive prices. Additionally, buyers are loath to spend more on new equipment when they have the option of using perfectly functional old equipment.
 - KLA-Tencor's balance sheet remains highly leveraged. As of Jun 30, 2020, the company's net debt was \$1.5 billion versus \$1.8 billion as of Mar 31, 2020. Accumulating high debt levels may impede sufficient cash flow generation, which is needed to meet future debt obligations. Moreover, this may keep the company from accessing the debt market and refinancing at suitable rates. Notably, debt-to-total capital was 56.4% as of Jun 30, 2020 which increased from 55.8% as of Mar 31, 2020.
-

Last Earnings Report

KLA Corp. Beats Q4 Earnings and Revenue Estimates

KLA Corporation reported fourth-quarter fiscal 2020 earnings per share of \$2.73, which beat the Zacks Consensus Estimate of \$2.35. The figure was up 53.4% year over year and 10.5% sequentially.

Revenues increased 16% from the year-ago quarter and 2.5% sequentially to \$1.46 billion, surpassing the Zacks Consensus Estimate by 4.04%. The figure was above the midpoint of the company's guided range of \$1.26-\$1.54 billion.

The newly formed Electronics, Packaging and Components or EPC group delivered record results for the quarter.

Foundry and logic is expected to continue performing well in 2020. The optimistic outlook is driven by next-generation technology development, capacity additions at leading-edge nodes, increasing competitive dynamics and investment in EUV infrastructure.

In addition, management expects business from Memory customers to improve in the second half of 2020.

Demand for advanced logic nodes is expected to remain healthy through 2020 and in 2021 driven by investment in EUV, competitive dynamics, as well as capacity additions.

Management continues to expect overall process control intensity to grow in 2020, driven by expanding value of inspection and measurement in addressing critical customer problems.

Top-Line Details

Products revenues (accounting for almost 74% of total revenues) increased 17.2% year over year to \$1.08 billion.

Services revenues (26% of total revenues) also increased 12.8% from the year-ago quarter to \$384.5 million.

The services business set a record for system installations in the quarter. Service contract penetration was robust, which has steadily risen from the 70% plus contract penetration to 75% plus over the last several quarters, in turn delivering a strong recurring revenue stream.

In terms of reportable segments, Semiconductor Process Control revenues increased 15% year over year to \$1.16 billion, driven by continued strength in foundry and logic. Foundry was approximately 50% of semiconductor process control systems' revenues, logic was about 10% and memory customers were 40%.

Specialty Semiconductor Process revenues were \$100 million, up 50% year over year and 18% sequentially, driven by strength in RF, MEMS and advance packaging.

The segment is expected to further benefit from expanding RF demand to support 5G infrastructure investment, particularly in China.

PCB, Display and component inspection revenues increased 10% from a year ago and 26% sequentially to \$202 million. Other revenues were \$0.397 million.

Operating Details

Non-GAAP gross margin was 60.3% versus 61.2% in the prior quarter. The gross margin was slightly above the midpoint of the guided range of 59-61%.

Total operating expenses decreased 3% year over year to \$384.9 million. As a percentage of sales, research and development as well as selling, general and administrative costs slightly decreased from the prior-year quarter.

Balance Sheet

KLA Corp. ended the quarter with cash, cash equivalents and a marketable securities balance of \$1.98 billion compared with \$1.63 billion in the fiscal third quarter.

Cash from operations was \$452.8 million in the fiscal fourth quarter versus \$442 million in the prior quarter.

Fiscal First-Quarter 2021 Guidance

For first-quarter fiscal 2021, revenues are expected between \$1.405 million and \$1.555 million.

The company expects gross margin in the range of 60.5-62.5% and non-GAAP EPS within \$2.42-\$3.06.

GAAP EPS is projected within \$2.18-\$2.82.

Quarter Ending	06/2020
Report Date	Aug 03, 2020
Sales Surprise	4.04%
EPS Surprise	16.17%
Quarterly EPS	2.73
Annual EPS (TTM)	10.34

Recent News

On **Jun 15, 2020**, KLA revealed about providing a grant of \$1 million to national and local initiatives for addressing and improving systemic racial inequality.

On **Mar 23, 2020**, KLA revealed about the creation of COVID-19 global relief fund worth \$2 million which will focus on public hospitals and medical units, food supplies, elderly communities and educational infrastructure. Notably, the fund will be created by KLA Foundation.

On **Feb 24, 2020**, KLA unveiled two metrology systems namely Archer 750 and SpectraShape 11k. Notably, the former is an imaging-based overlay metrology system and the latter is an optical critical dimension metrology system.

Valuation

KLA shares are up 17.1% in the year-to-date period and 41% over the trailing 12-month period. Stocks in the Zacks sub-industry are down 4.4% but up 28.6% in the Zacks Computer & Technology sector in the year-to-date period. Over the past year, the Zacks sub-industry is up 6.8% and the sector is up 44.2%.

The S&P 500 index is up 9% in the year-to-date period and 20.2% in the past year.

The stock is currently trading at 17.94X forward 12-month earnings, which compares to 18.36X for the Zacks sub-industry, 27.79X for the Zacks sector and 23.5X for the S&P 500 index.

Over the past five years, the stock has traded as high as 20.98X and as low as 10.88X, with a 5-year median of 16.71X. Our Outperform recommendation indicates that the stock will perform better than the market. Our \$240 price target reflects 9.3X forward 12-month earnings.

The table below shows summary valuation data for KLAC

Valuation Multiples - KLAC					
		Stock	Sub-Industry	Sector	S&P 500
P/E F 12M	Current	17.94	18.36	27.79	23.5
	5-Year High	20.98	18.47	27.79	23.5
	5-Year Low	10.88	13.53	19.2	16.43
	5-Year Median	16.71	16.73	21.82	18.6
P/S F12M	Current	4.01	1.17	3.11	2.94
	5-Year High	4.92	1.48	3.58	3.44
	5-Year Low	2.54	0.58	2.32	2.54
	5-Year Median	3.7	1.07	3.09	3
EV/EBITDA TTM	Current	12.73	12.71	11.27	11.15
	5-Year High	15.81	18.4	12.61	12.82
	5-Year Low	5.91	8.32	7.68	8.49
	5-Year Median	11.35	11.37	10.55	10.3

As of 08/28/2020

Industry Analysis Zacks Industry Rank: Top 47% (119 out of 252)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Garmin Ltd. (GRMN)	Outperform	2
Lam Research Corporation (LRCX)	Outperform	1
Teradyne, Inc. (TER)	Outperform	2
Agilent Technologies, Inc. (A)	Neutral	3
Applied Materials, Inc. (AMAT)	Neutral	2
Amkor Technology, Inc. (AMKR)	Neutral	2
ASML Holding N.V. (ASML)	Neutral	3
Trimble Inc. (TRMB)	Neutral	3

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

Industry Comparison Industry: Electronics - Miscellaneous Products				Industry Peers		
	KLAC	X Industry	S&P 500	AMAT	ASML	LRCX
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Neutral	Outperform
Zacks Rank (Short Term)	2	-	-	2	3	1
VGM Score	C	-	-	C	D	D
Market Cap	32.43 B	273.79 M	23.71 B	57.60 B	159.31 B	51.08 B
# of Analysts	7	2	14	10	3	9
Dividend Yield	1.73%	0.00%	1.63%	1.40%	0.65%	1.31%
Value Score	D	-	-	C	D	D
Cash/Price	0.06	0.13	0.07	0.08	0.03	0.13
EV/EBITDA	16.29	6.47	13.37	15.07	43.97	17.32
PEG F1	1.64	2.02	3.08	1.10	1.94	1.10
P/B	12.10	1.72	3.22	6.02	11.39	9.85
P/CF	14.48	7.84	12.90	17.99	46.77	19.19
P/E F1	18.14	20.68	21.82	15.50	44.06	16.90
P/S TTM	5.59	0.88	2.52	3.54	11.26	5.09
Earnings Yield	5.48%	4.10%	4.41%	6.45%	2.27%	5.92%
Debt/Equity	1.29	0.17	0.74	0.57	0.36	0.96
Cash Flow (\$/share)	14.41	1.55	6.94	3.51	8.11	18.28
Growth Score	B	-	-	C	B	D
Historical EPS Growth (3-5 Years)	24.77%	-2.74%	10.41%	28.18%	23.00%	28.31%
Projected EPS Growth (F1/F0)	10.54%	-1.73%	-4.94%	33.82%	25.01%	30.11%
Current Cash Flow Growth	43.45%	-2.18%	5.22%	-35.58%	-4.32%	0.36%
Historical Cash Flow Growth (3-5 Years)	31.56%	4.02%	8.50%	13.90%	14.58%	15.52%
Current Ratio	2.78	1.72	1.35	2.86	2.91	3.43
Debt/Capital	56.41%	19.83%	43.86%	36.28%	26.70%	48.95%
Net Margin	20.96%	0.16%	10.25%	19.58%	22.70%	22.42%
Return on Equity	63.04%	4.63%	14.66%	38.81%	23.21%	49.69%
Sales/Assets	0.63	0.95	0.50	0.80	0.56	0.78
Projected Sales Growth (F1/F0)	4.88%	0.00%	-1.43%	17.15%	15.43%	23.52%
Momentum Score	D	-	-	F	D	D
Daily Price Change	2.03%	0.00%	0.71%	1.68%	0.86%	2.73%
1-Week Price Change	-3.56%	-1.61%	-1.45%	-7.91%	0.27%	-5.41%
4-Week Price Change	5.41%	1.33%	4.59%	-2.10%	4.61%	-7.33%
12-Week Price Change	11.98%	6.67%	4.86%	8.50%	7.47%	20.20%
52-Week Price Change	42.52%	7.17%	3.09%	33.31%	72.69%	68.92%
20-Day Average Volume (Shares)	1,065,084	55,322	1,887,168	7,844,764	567,448	1,436,108
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	16.60%	1.12%	0.79%	6.66%	0.00%	21.15%
EPS F1 Estimate 12-Week Change	18.81%	7.19%	3.43%	6.66%	18.53%	21.08%
EPS Q1 Estimate Monthly Change	21.75%	2.78%	0.00%	14.30%	0.00%	22.84%

Source: Zacks Investment Research

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	B
Momentum Score	D
VGM Score	C

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

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

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

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.

Additional Disclosure

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

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

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

EV/CF Ratio: The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

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

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

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

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

P/TB Ratio: The price-to-tangible-book value ratio is calculated as 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.