

PTC Inc. (PTC)

\$95.44 (As of 09/01/20)

Price Target (6-12 Months): **\$100.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/23/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:C

Value: D

Growth: A

Momentum: D

Summary

PTC is benefiting from steady performance across Core and Growth product groups. Solid pipeline and new ACV bookings are driving the top line. Particularly, robust adoption of Vuforia-Chalk and the latest Vuforia Expert Capture solution hold promise. Furthermore, growing clout of ThingWorx and Windchill platforms is noteworthy. Moreover, synergies from Onshape acquisition bode well. New deal wins on the back of strategic alliances with Rockwell Automation and Microsoft are anticipated to drive the top line in the longer haul. However, the company revised guidance for fiscal 2020 due to coronavirus-induced weakening macroeconomic conditions. Unfavorable foreign exchange rates and stiff competition in the computer-aided design market remain major headwinds. Notably, shares of the company have underperformed the industry in the year-to-date period.

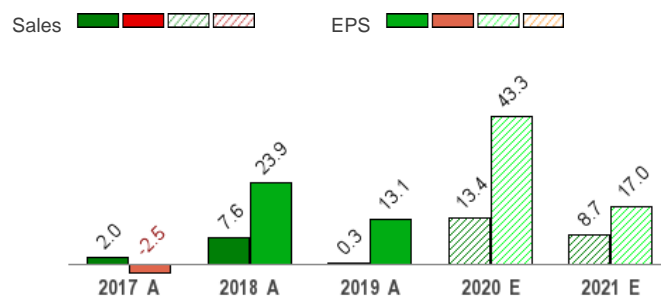
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$96.25 - \$43.90
20-Day Average Volume (Shares)	618,527
Market Cap	\$11.1 B
Year-To-Date Price Change	27.4%
Beta	1.20
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Computer - Software
Zacks Industry Rank	Top 30% (75 out of 251)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	37.8%
Last Sales Surprise	6.7%
EPS F1 Estimate 4-Week Change	1.9%
Expected Report Date	10/28/2020
Earnings ESP	0.0%
P/E TTM	39.4
P/E F1	40.6
PEG F1	1.3
P/S TTM	7.9

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	384 E	384 E	392 E	419 E	1,549 E
2020	356 A	360 A	352 A	356 E	1,424 E
2019	335 A	316 A	323 A	335 A	1,256 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.67 E	\$0.70 E	\$0.74 E	\$0.83 E	\$2.75 E
2020	\$0.57 A	\$0.59 A	\$0.62 A	\$0.56 E	\$2.35 E
2019	\$0.56 A	\$0.38 A	\$0.36 A	\$0.64 A	\$1.64 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 09/01/2020. The reports text is as of 09/02/2020.

Overview

Boston, MA-based PTC Inc. provides software solutions and services globally, that aid manufacturing companies to design, operate, and manage products. Founded in 1985, the company was formerly known as Parametric Technology Corporation and changed its name to PTC Inc. in January 2013.

The company offers comprehensive portfolio of software solutions comprising computer-aided design (CAD) modeling, product lifecycle management (PLM), data orchestration (IIoT), and experience creation (AR) products.

Creo is the company's flagship 3D CAD product. Creo offers design engineers with design flexibility, assembly design, surfacing, and virtual prototyping design capabilities.

PTC's primary PLM product, Windchill software offers a unified repository for comprehensive product information. Windchill also includes AR capabilities, to aid customers develop a digital product definition and publish the illustration of the product in AR.

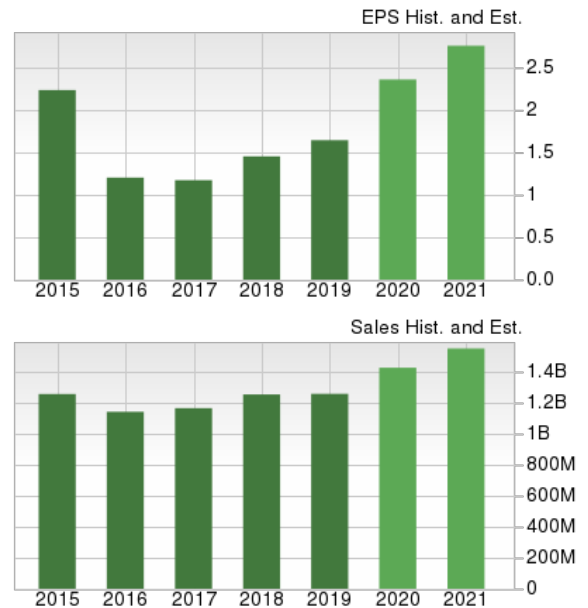
Meanwhile, ThingWorx product helps customers to develop and deploy IoT applications; manage connected devices; and analyze complex industrial IoT data, in a cost- and time-efficient manner.

Vuforia Studio product aids industrial enterprises to publish AR experiences superimpose vital digital information from CAD, IoT, and other related sources onto the view of the material things on which users work.

In fiscal 2019, revenues came in at \$1.311 billion as per ASC 605. Under ASC 606, the company reported revenues of \$1.256 billion.

PTC has two operating and reportable segments: Software Products (44.6% of fiscal 2019 revenues), which includes subscription, license and associated support revenues; and Professional Services (55.4%), which includes implementation, consulting and training services.

Per ASC 606, the company generated 43% of revenues from Americas, while the balance 57% came from foreign operations in fiscal 2019.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ PTC is well poised to gain from strength in product portfolio. The company's solutions aid industrial enterprises to enhance operational efficiency, accelerate product and service innovation, and boost workforce productivity. Growing clout of the company's major technology platforms including, 3D modeling (CAD) offering; Creo, lifecycle management (PLM) solution; Windchill, data orchestration (IIoT) offering; ThingWorx, and experience creation (AR) product; Vuforia Studio, is expected to drive the top-line.
- ▲ Global 3D CAD software market is set to hit \$14.5 billion by 2026, at a CAGR of 5.9% between 2019 and 2026, per Acumen Research and Consulting data. Increased adoption of computer-based design in the automotive sector, and growing clout of additive production by manufacturers, are tailwinds. Solid demand for precision in design, complex prototyping and digitalization of construction is expected to drive demand for 3D-CAD offerings in the automotive, aerospace, manufacturing, healthcare and defense verticals.
- ▲ Moreover, increasing spending by enterprises on emerging categories like IoT and AR/VR presents significant prospects for PTC. Market research firm IDC estimates global IoT spending to hit \$1.1 trillion in 2023. Moreover, the firm estimates AR/VR spending to accelerate at a CAGR of 77% over 2019-2023 timeframe. This presents significant growth opportunity for semiconductor chip makers and electronics sensor developers. We believe that the company's expanding product portfolio will help it to win frequent orders and new customers from these emerging markets. Notably, IDC's "MarketScape: Worldwide Industrial IoT Platforms in Manufacturing 2019 Vendor Assessment" report places PTC in the "Leaders" quadrant, which reflects the company's growing clout in the IIoT vertical on robust adoption of its ThingWorx offering.
- ▲ The company's collaborations with advanced technology suppliers, hardware vendors, specialized application developers, and CAD and PLM providers is a key catalyst. For instance, PTC's partnership with ANSYS enables integration of Creo with ANSYS' Discovery Live real-time simulation capabilities. The company also teamed up with Rockwell Automation, which is expected to enhance PTC's Vuforia and ThingWorx platforms. It has also partnered with Microsoft to deploy the ThingWorx Industrial Innovation Platform on Azure cloud platform. We believe that the strong partner network will help the company win customers more frequently, which in turn will drive the top line.
- ▲ Strategic acquisition strategy has played a pivotal part in developing the company's business in the last few years. Recently, the company acquired Onshape for \$470 million in cash to enhance Creo and Windchill products with advanced SaaS capabilities. The company's buyout of TWNKLs will strengthen its industrial AR offerings. These along with Frustum (advanced patented desktop and cloud-based generative design software provider), Waypoint Labs and Reality Editor (adding more IoT and AR product development capabilities) acquisitions have enabled the company to offer new and innovative products. We anticipate PTC to pursue tuck-in acquisitions, which will further expand product portfolio in the long term.
- ▲ We also note that it has a diversified customer base, which is evident from the fact that no single customer accounted for more than 5% of revenues in the last three years. Markedly, at the end of fiscal 2019, total deferred revenues (including unbilled deferred revenues and backlog) came in at \$1.135 billion. We also believe that PTC's increasing investments on emerging trends like IoT, AR/VR and autonomous vehicle sub-systems presents significant prospects for the company in the long haul.

Robust adoption driven by high demand for SaaS-based CAD, PLM and IIoT solutions, new business bookings on the back of strategic alliances with Rockwell Automation and Microsoft, are key catalysts.

Reasons To Sell:

- ▼ PTC generated a significant portion (57%) of revenues from the International market in fiscal 2019. Adverse foreign currency exchange rates, particularly the Euro, impacted European revenues unfavorably in 2019 by \$26 million. Unfavorable changes in foreign currency exchange rates impacted Asia Pacific revenues by \$6 million in 2019. This is anticipated to weigh on revenue growth in the near term owing to the strengthening of the U.S. dollar compared with the Euro and other foreign currencies, which is a significant concern.
- ▼ Moreover, Europe continues to remain a major headwind for PTC. Uncertainty related to Brexit, growing data privacy regulations and overall macro-weakness in the region is anticipated to hurt top line in the near term. Notably, the company generated 37% of fiscal 2019 revenues (per ASC 606) from Europe.
- ▼ PTC faces stiff competition in the computer-aided design (CAD) market from Cadence Design Systems (as it recently ventured into the market with 3D Solver offering), Autodesk, ANSYS and Synopsys, to mention a few. Considering IIoT vertical, similar solutions from large established companies like Amazon, IBM, Oracle, SAP, Siemens AG, and GE are likely to affect adoption of PTC's ThingWorx IoT platform. New entrants are likely to pose a threat to the company's market share. This might compel the company resort to competitive pricing to maintain and capture further market share.
- ▼ Frequent acquisitions have escalated integration risks for PTC. We note that the frequent acquisitions negatively impacted the company's balance sheet in the form of high level of goodwill and intangible assets, which accounted for approximately \$1.85 billion or 54.8% of the total assets as of Jun 27. Acquisitions also raise PTC's debt burden, which increases the risk profile of the business. As of Jun 27, the company's net debt was \$665 million. Moreover, total debt to total capital of 49.6% is higher than the industry's figure of 41.7%. Further, times interest earned is 2.5X compared with the industry's figure of 17.6X. Consequently, the company is required to constantly generate adequate amount of cash flows to meet debt requirements.

Uncertainty over Brexit adverse foreign currency exchange volatility, and integration risks from buyouts, are likely to weigh on PTC's financial performance.

Last Earnings Report

PTC Surpasses Q3 Earnings Estimates, Tweaks 2020 Guidance

PTC Inc. reported third-quarter fiscal 2020 non-GAAP earnings of 62 cents per share, up 169.6% on a year-over-year basis. Also, the bottom line beat the Zacks Consensus Estimate by 37.8%.

Revenues came in at \$352 million, up 19% year over year, driven by strength across Core and Growth product groups offset by mid-single digit growth in Focused Solutions Group (FSG). The top line surpassed the Zacks Consensus Estimate by 6%.

Quarter Ending	06/2020
Report Date	Jul 29, 2020
Sales Surprise	6.66%
EPS Surprise	37.78%
Quarterly EPS	0.62
Annual EPS (TTM)	2.42

Top Line in Detail

Recurring revenues of \$310.6 million improved 27.2% year over year. Perpetual license of \$6.77 million declined 26.5% from the year-ago quarter's figure due to end of perpetual license sales on Jan 1, 2019.

Revenues by License, Support and Services

License revenues (33.6% of total revenues) were \$118.2 million, up 87.9% from the year-ago quarter's figure.

Support and cloud services revenues (56.6%) of \$199.1 million improved 4.5% year over year.

Professional services revenues (9.8%) of \$34.3 million declined 18.4% year over year.

Revenues by Product Group

Revenues from Core Product Group — which includes computer-aided design (CAD) & Product Lifecycle Management (PLM) offerings — came in at \$230 million, up 33% year over year (up 34% at constant currency or cc).

Revenues from Growth Product Group (which includes IoT, AR & Onshape) totaled \$40 million, up 9% year over year (10% at cc).

Revenues from Focused Solutions Group (FSG) amounted to \$47 million, up 8% year over year (9% at cc).

ARR Performance

Annualized recurring revenues (ARR) were \$1.205 billion, up 9% year over year, driven by strong renewals performance and higher-than-expected new ACV bookings.

ARR from Core Product Group (CAD & PLM) came in at \$869 million, up 9% year over year (up 10% at cc). Growth was driven by strength in PLM.

ARR from Growth Product Group (IoT, AR & Onshape) came in at \$160 million, up 23% year over year (24% at cc). Year-over-year growth can be attributed to improvement in AR as well as strength across Europe and Japan. However, performance was dampened by decline in transaction at the end of quarter due to the COVID-19 outbreak.

ARR from FSG came in at \$177 million, down 1% year over year (0% at cc). The low growth rate reflects America region's weak performance.

Operating Details

Non-GAAP gross margin expanded 510 basis points (bps) on a year-over-year basis to 80.3%.

Non-GAAP operating expenses were \$179 million. GAAP operating expenses increased 3% year over year to \$209 million. This can be attributed to the company's restructuring efforts to control expenses.

Operating income on a non-GAAP basis increased 173.7% year over year to \$103.4 million.

Consequently, operating margin on a non-GAAP basis was 29.4% compared with 12.8% reported in the year-ago quarter.

Balance Sheet & Cash Flow

As of Jun 27, cash, cash equivalents and marketable securities were \$435 million compared with the prior-quarter's figure of \$84 million.

Total debt, net of deferred issuance costs, was \$1.12 billion, up from the prior-quarter figure of \$1.63 billion.

Cash provided by operating activities came in at \$105 million compared with the prior-quarter figure of \$87.8 million.

Free cash flow was \$99 million compared with \$82.3 million reported in the previous quarter.

Guidance

Due to weakening macroeconomic conditions induced by the coronavirus pandemic, the company revised its guidance for fiscal 2020.

Fiscal 2020 revenues are now projected between \$1.40 billion and \$1.43 billion compared with the earlier guidance of \$1.415-\$1.43 billion. Further, non-GAAP earnings are now expected between \$2.20 and \$2.35 per share compared with the prior range of \$2.28-\$2.35 per share.

ARR is now expected to be \$1.220-\$1.255 billion, which indicates rise of 11-12% year over year. The prior guidance for ARR was in the range of \$1.235-\$1.255 billion.

Adjusted free cash flow is projected to be \$200 million compared with the prior figure of \$210 million.

Recent News

On Aug 14, PTC rolled out Onshape Education Suite's Enterprise Plan for K-12 affiliated schools and universities to assist students as they adapt to online learning owing to coronavirus outbreak, for no additional cost.

On Jul 29, PTC announced that the U.S. Navy has selected its Windchill product lifecycle management (PLM) Software as a Service (SaaS) offering to support its Model Based Product Support (MBPS) digital transformation initiatives, aimed at improving the Navy's operational readiness.

On Jul 8, PTC announced that it expects to deliver third quarter fiscal 2020 ARR growth of 9% year over year, 10% in constant currency. The company also anticipates delivering double-digit growth in revenues and free cash flow on a year-over-year basis in fiscal third quarter.

On Jun 17, PTC announced that the Vuforia Chalk remote experience software has been selected by BID Group to advance its digital transformation strategy. BID Group, which provides innovative wood processing solutions, will leverage Vuforia Chalk remote experience software's AR capabilities to enable its remote service teams to provide real-time assistance to customers.

Valuation

PTC shares are up 27.4% in the year to date period and 50.3% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 40.4% and 14.6% in the year-to-date period, respectively. In the past year, the Zacks sub-industry and the sector are up 56.8% and 30.3%, respectively.

The S&P 500 index is up 3.1% in the year-to-date period and 14.6% in the past year.

The stock is currently trading at 7.2X forward 12-month sales compared with 8.3X for the Zacks sub-industry, 4.34X for the Zacks sector and 3.93X for the S&P 500 index.

In the past five years, the stock has traded as high as 9.96X and as low as 2.61X, with a five-year median of 5.5X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$100 price target reflects 7.54X forward 12-month sales.

The table below shows summary valuation data for PTC

Valuation Multiples - PTC					
		Stock	Sub-Industry	Sector	S&P 500
P/S F12M	Current	7.2	8.3	4.34	3.93
	5-Year High	9.96	8.3	4.34	3.93
	5-Year Low	2.61	3.88	2.32	2.53
	5-Year Median	5.5	5.69	3.15	3.07
P/B TTM	Current	8.32	11.98	5.31	4.50
	5-Year High	15	11.98	5.96	4.76
	5-Year Low	3.8	4.24	3.16	2.83
	5-Year Median	7.4	7.39	4.45	3.76
EV/Sales TTM	Current	8.39	9.24	4.56	3.25
	5-Year High	10.45	9.24	5.02	3.44
	5-Year Low	2.95	3.31	2.56	2.11
	5-Year Median	6.39	5.99	3.64	2.86

As of 09/01/2020

Industry Analysis Zacks Industry Rank: Top 30% (75 out of 251)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
ANSYS, Inc. (ANSS)	Outperform	2
Blackbaud, Inc. (BLKB)	Outperform	1
Autodesk, Inc. (ADSK)	Neutral	3
Cadence Design Systems, Inc. (CDNS)	Neutral	2
CommVault Systems, Inc. (CVLT)	Neutral	3
Nuance Communications, Inc. (NUAN)	Neutral	3
Pegasystems Inc. (PEGA)	Neutral	3
Verint Systems Inc. (VRNT)	Neutral	3

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

Industry Comparison Industry: Computer - Software				Industry Peers		
	PTC	X Industry	S&P 500	ANSS	CDNS	VRNT
Zacks Recommendation (Long Term)	Neutral	-	-	Outperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	2	2	3
VGM Score	C	-	-	F	C	B
Market Cap	11.08 B	1.73 B	23.95 B	29.50 B	31.78 B	3.17 B
# of Analysts	7	4	14	5	6	4
Dividend Yield	0.00%	0.00%	1.61%	0.00%	0.00%	0.00%
Value Score	D	-	-	F	D	C
Cash/Price	0.04	0.08	0.07	0.03	0.04	0.20
EV/EBITDA	83.61	18.34	13.32	48.23	49.77	18.32
PEG F1	1.26	2.62	3.05	NA	3.26	1.09
P/B	8.32	6.99	3.21	8.56	14.08	2.65
P/CF	59.12	23.67	12.92	52.43	28.67	11.69
P/E F1	40.87	36.59	21.84	56.06	44.76	15.25
P/S TTM	7.90	4.92	2.52	19.40	13.05	2.48
Earnings Yield	2.46%	2.57%	4.39%	1.78%	2.24%	6.56%
Debt/Equity	0.85	0.24	0.70	0.12	0.15	0.90
Cash Flow (\$/share)	1.61	1.19	6.93	6.56	3.98	4.20
Growth Score	A	-	-	D	B	B
Historical EPS Growth (3-5 Years)	4.68%	9.39%	10.41%	14.28%	33.78%	6.79%
Projected EPS Growth (F1/F0)	43.55%	10.11%	-4.75%	-6.78%	15.76%	-10.38%
Current Cash Flow Growth	-3.70%	6.56%	5.22%	8.84%	138.95%	10.44%
Historical Cash Flow Growth (3-5 Years)	-9.76%	9.63%	8.49%	7.79%	24.55%	0.84%
Current Ratio	1.27	1.51	1.35	2.38	1.42	1.64
Debt/Capital	45.86%	27.95%	42.92%	10.97%	13.31%	47.46%
Net Margin	6.21%	6.61%	10.25%	26.17%	41.74%	1.65%
Return on Equity	16.99%	10.54%	14.66%	12.91%	50.84%	12.14%
Sales/Assets	0.43	0.60	0.50	0.35	0.71	0.42
Projected Sales Growth (F1/F0)	8.87%	2.10%	-1.40%	5.67%	11.49%	-5.40%
Momentum Score	D	-	-	F	C	D
Daily Price Change	4.41%	0.40%	0.29%	1.44%	2.77%	3.17%
1-Week Price Change	4.34%	0.76%	2.59%	3.76%	0.26%	4.48%
4-Week Price Change	10.21%	2.69%	3.53%	11.37%	4.43%	10.78%
12-Week Price Change	17.05%	8.27%	2.09%	20.55%	23.14%	-1.56%
52-Week Price Change	50.28%	22.16%	4.31%	66.93%	67.27%	-7.36%
20-Day Average Volume (Shares)	618,527	162,150	1,816,754	350,533	1,297,021	411,908
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	1.86%	0.00%	0.20%	1.97%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	4.03%	4.47%	3.86%	2.18%	16.77%	-3.50%
EPS Q1 Estimate Monthly Change	-7.72%	0.00%	0.00%	-16.74%	0.00%	0.00%

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	A
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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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