

## VALUATION SUMMARY

Stocks Undervalued	63.42%	Stocks Overvalued	36.58%
Stocks Undervalued by 20%	28.97%	Stocks Overvalued by 20%	12.15%

ValuEngine currently finds the markets attractive with the majority of stocks covered undervalued according to the research.

## INDEX OVERVIEW

Index	Date	Last Close	MTD	QTD	YTD
S&P 500	11/21/2019	3,103.54	2.17%	6.05%	23.80%
Dow 30	11/21/2019	27,766.29	2.66%	5.16%	19.03%
Nasdaq	11/21/2019	8,506.21	2.58%	6.82%	28.20%
Russell 2000	11/21/2019	1,583.96	1.38%	5.96%	17.46%

## PERFORMANCE HISTORY



## SECTOR AVERAGE COMPARISON

Sector Name	Valuation	Momentum	P/E Ratio	Sharpe Ratio
Oils-Energy	31.94% undervalued	-22.80%	15.71	-0.5113
Consumer Discretionary	11.97% undervalued	-1.34%	23.44	-0.0648
Basic Materials	11.27% undervalued	2.90%	23.00	-0.1084
Consumer Staples	8.60% undervalued	3.00%	23.95	0.0422
Business Services	6.88% undervalued	7.43%	25.39	-0.0551
Retail-Wholesale	6.42% undervalued	-0.34%	21.92	-0.1061
Medical	5.69% undervalued	5.15%	28.64	-0.2661
Multi-Sector Conglomerates	5.67% undervalued	2.48%	15.20	-0.0350
Industrial Products	3.81% undervalued	8.64%	20.68	0.0454
Finance	3.36% undervalued	5.67%	15.98	0.1428
Transportation	2.89% undervalued	3.27%	18.24	-0.1267
Auto-Tires-Trucks	1.66% undervalued	5.22%	14.27	-0.1161
Construction	0.43% undervalued	15.00%	21.11	0.0695
Utilities	0.78% overvalued	9.69%	23.10	0.1958
Aerospace	2.31% overvalued	19.71%	25.39	0.2223
Computer and Technology	4.78% overvalued	17.08%	32.75	0.0581

## TOP INDUSTRIES

Industry Name	Valuation	Momentum	P/E Ratio	Sharpe Ratio	Market Cap (bil)
Solar	-14.38%	21.47%	37.27	-0.4166	0.9708
Medical Information Systems	-0.79%	20.91%	25.24	-0.3563	1.7251
Internet Software	9.91%	24.31%	47.75	-0.0550	4.7768
Retail-Drug Stores	-20.09%	-29.20%	13.63	-0.3508	22.8493
Real Estate Development	-2.61%	20.60%	13.21	0.2976	1.0762
Protection-Sfty Eq & Svc	29.54%	41.48%	23.48	0.0372	4.2391
Mining-Misc	-20.07%	-1.72%	24.18	-0.1881	3.0840
Medical-Biomed/Genetics	-1.11%	5.58%	28.72	-0.3649	2.1313
Medical Instruments	-1.69%	15.56%	38.65	-0.1640	4.2845
Computer-Services	-4.74%	32.52%	29.69	0.3559	4.2858

## STOCK OF THE WEEK - PTC

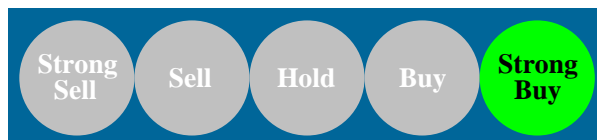
Company Name: Ptc Inc

Sector: Computer and Technology

Industry: Computer-Software

## ValuEngine Recommendation

ValuEngine recommendation covers more than 5000 companies. The recommendations are based on the proprietary ValuEngine one-year forecast return model output for each individual equity. ValuEngine's Five-Engine rating stocks have an averaged annual return of 11.17% since 2002.



## Data Summary

Trade Date: Nov 21, 2019	Last Close: \$75.08	Avg Volume: 1022612
1-Yr Forecast: 14.55%	Valuation: 16.31%	1-Yr Momentum: -11.38%
Trailing P/E: 58.96	Forward P/E: 48.97	PEG Ratio: 2.89
Market Cap (bil): \$8.65	EPS Growth: 20.42%	Beta: 1.15
5-Yr Avg Return: 11.24%	Volatility: 28.66%	Sharpe Ratio: 0.39
P/S Ratio: 6.89	M/B Ratio: 7.19	Alpha: -0.34

## Forecast Analysis

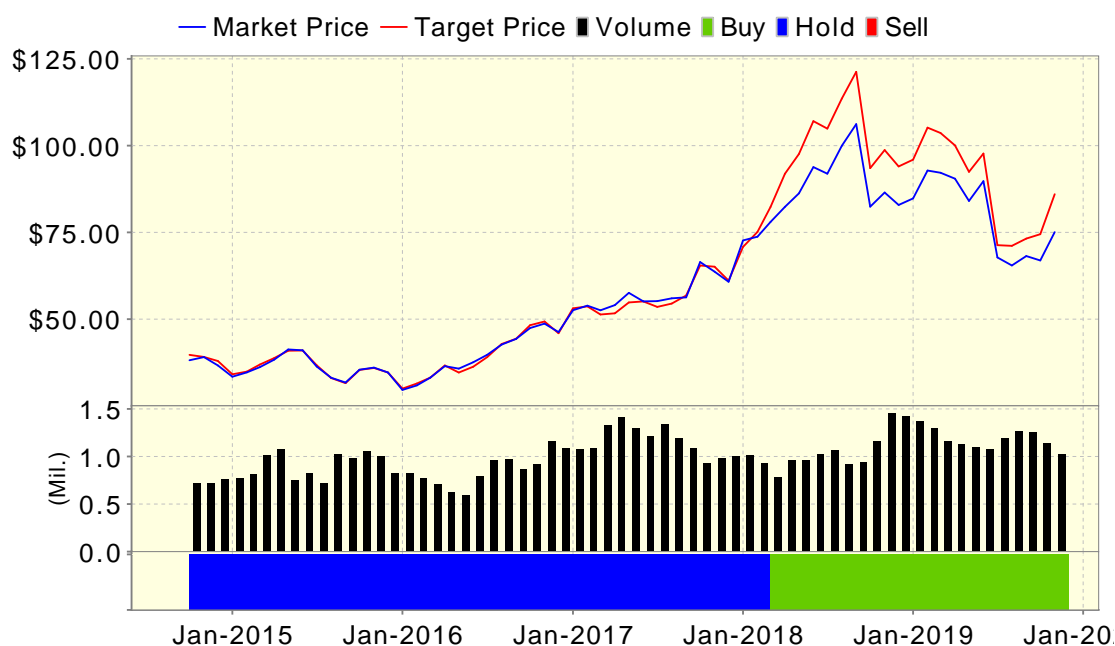
The predictive variables used in Valuengine's forecast model include both proprietary and well-established variables derived from credible financial studies and publications. We use a distinct forecasting model for each time horizon and apply the most advanced statistical/econometric techniques to ensure that our stock return forecasts are as reliable as possible.

	Target Price	Exp. Return
1-Month	\$75.99	1.21%
3-Month	\$77.12	2.72%
6-Month	\$77.94	3.80%
1-Year	\$86.00	14.55%
2-Year	\$74.75	-0.44%
3-Year	\$67.11	-10.61%

[Click for more information on ValuEngine's models.](#)

## STOCK OF THE WEEK - PTC

### Price And Recommendation History



### ValuEngine Evaluation & Rankings

	Value	Ranking
1-Yr Forecast	14.55%	99
Valuation	16.31%	15
1-Yr Momentum	-11.38%	28
P/E Ratio	58.96	36
Market Cap(bil)	8.6477	86
EPS Growth	20.42%	60
5-Yr Avg Return	11.24%	84
Volatility	28.66%	54
Sharpe Ratio	0.3920	80
P/S Ratio	6.89	17
M/B Ratio	7.19	20
Surprise	51.29%	90

Just as important as the percentages shown for our predictive variables for each stock is the way they are ranked against @7000 stocks in our database. This is sometimes confusing to newcomers to ValuEngine. Each of these quantitative measurements is ranked on a scale of 1 to 100. Generally the higher the ranking, the more positive the influence each measurement has on the overall attractiveness of the stock. In other words a high rank is always better. For example:

- \* Forecast rank 99: 1% of stocks have higher forecast returns.
- \* Valuation rank 15: 85% of stocks are more undervalued.
- \* Momentum rank 28: 72% of stocks have higher momentum.
- \* P/E rank 36: 64% of stocks have lower P/E ratios.
- \* Size rank 86: 14% of stocks have higher market capitalization.
- \* Volatility rank 54: 46% of stocks have less volatility.

### Business Summary

PTC Inc. develops, markets, and supports software solutions. The company offers enterprise solutions and desktop solutions. Its principal Enterprise Solutions are Windchill, Arbortext, Creo View and Integrity. The Company's Desktop Solutions include its integrated Creo software suite, its Mathcad engineering calculations software and its Arbortext document authoring tools. It also offers consultation, implementation, training, and maintenance services. PTC Inc., formerly known as Parametric Technology Corporation, is headquartered in Needham, Massachusetts.

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- Other customized services

**Please call (321) 325-0519 or contact support@valuengine.com**

## VALUENGINE'S METHODOLOGY

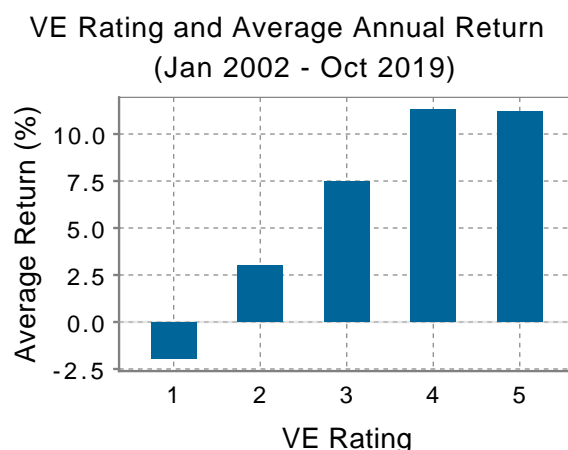
ValuEngine's research combines the most advanced academic concepts with real world Wall Street practice. The result is state-of-the-art fair market valuation and price forecasting technologies.

ValuEngine's stock valuation employs a sophisticated, three-factor approach. Fundamental variables, such as a company's trailing 12-month Earnings-Per-Share (EPS), the analyst consensus estimate of the company's future 12-month EPS, and the 30-year Treasury yield, are all used to create a more accurate reflection of a company's fair value. Together with eleven additional variables, ValuEngine paints a detailed picture of a company's fair value, represented by the model price.

ValuEngine's stock forecasts capture several important tendencies that stock prices consistently exhibit over six time horizons to ensure forecasts are established relative to a stock's proper peer groups. Advanced statistical/econometric techniques are used to run thousands of simulations estimating the probability of a double in stock price, as well as the probability of meeting and exceeding any given portfolio or stock investment target.

VE Engine Rating is an assessment of a stock's overall attractiveness. It is based on the one year forecast target price, which is the final evolution of VE's equity modeling. On average, only 2 percent of ValuEngine's 5,500 stocks under coverage achieve a 5 rating. 5 and 4 rated stocks are expected to outperform the overall markets, 3 rated to roughly match market performance, and 2 and 1 rated are expected to underperform.

For additional information about ValuEngine's financial research and financial modeling, please click [www.valuengine.com](http://www.valuengine.com)



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ValuEngine offers equity recommendations and related return estimates to investors and their advisors. It uses a three-class Buy-Hold-Sell rating system. This is a consolidated version of the firm's five class rating system: most favorable and favorable ratings are buys; neutral ratings are holds and the categories unfavorable and most unfavorable are sells.

**STOCK RATINGS:** The terms below are used to rate a stock's 12-month performance:

1. Buy: Expected to outperform the SP500 producing above average returns.
2. Hold: Expected to perform in line with the SP500 with average returns.
3. Sell: Expected to underperform the SP500 producing below-average returns.

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