

VALUATION SUMMARY

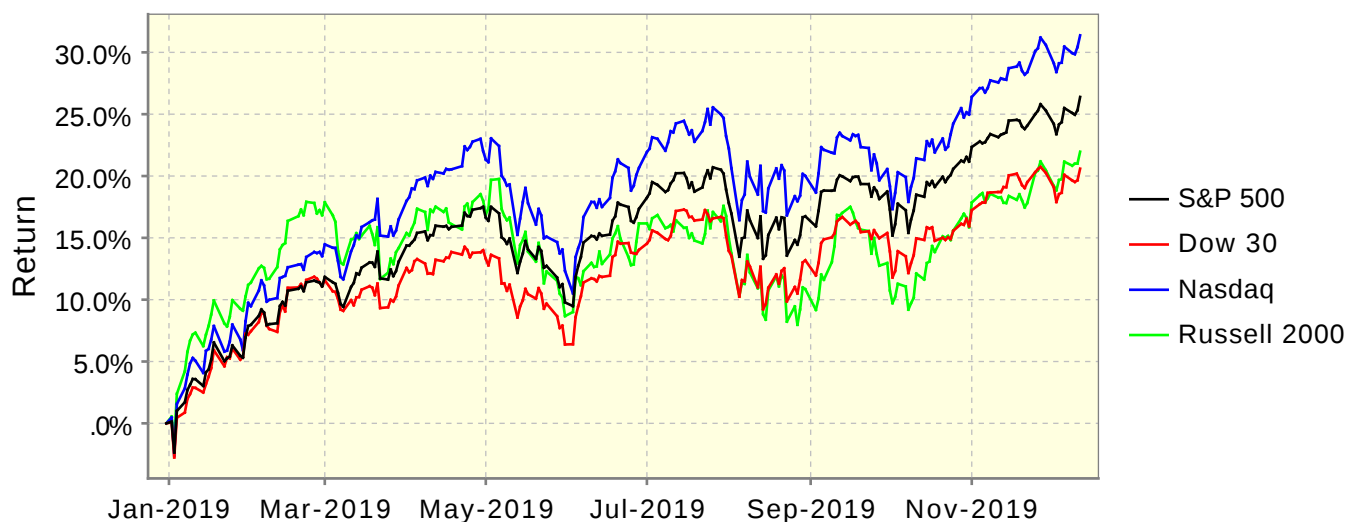
Stocks Undervalued	57.56%	Stocks Overvalued	42.44%
Stocks Undervalued by 20%	26.43%	Stocks Overvalued by 20%	13.21%

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	12/12/2019	3,168.57	0.88%	0.47%	26.40%
Dow 30	12/12/2019	28,132.05	0.29%	-0.11%	20.60%
Nasdaq	12/12/2019	8,717.32	0.60%	0.14%	31.38%
Russell 2000	12/12/2019	1,644.81	1.25%	0.66%	21.97%

PERFORMANCE HISTORY



SECTOR AVERAGE COMPARISON

Sector Name	Valuation	Momentum	P/E Ratio	Sharpe Ratio
Oils-Energy	32.15% undervalued	-12.81%	19.00	-0.4658
Consumer Staples	8.25% undervalued	8.37%	23.88	0.0709
Consumer Discretionary	7.54% undervalued	4.31%	24.29	-0.0539
Basic Materials	7.52% undervalued	10.28%	22.54	-0.1035
Business Services	4.21% undervalued	12.82%	25.41	-0.0499
Multi-Sector Conglomerates	2.83% undervalued	14.42%	14.83	-0.0296
Finance	1.70% undervalued	9.28%	16.08	0.1634
Transportation	0.92% undervalued	9.47%	18.09	-0.1259
Retail-Wholesale	0.82% undervalued	6.98%	22.61	-0.1219
Aerospace	0.03% undervalued	23.57%	25.39	0.2095
Industrial Products	2.07% overvalued	16.81%	20.94	0.0511
Utilities	2.35% overvalued	7.53%	23.31	0.1905
Medical	2.41% overvalued	9.32%	29.34	-0.2187
Construction	3.44% overvalued	22.02%	20.38	0.0770
Computer and Technology	6.56% overvalued	17.12%	33.59	0.0669
Auto-Tires-Trucks	10.66% overvalued	17.04%	15.76	-0.0782

TOP INDUSTRIES

Industry Name	Valuation	Momentum	P/E Ratio	Sharpe Ratio	Market Cap (bil)
Technology Services	10.76%	7.42%	31.01	-0.3476	3.5800
Elec Power	33.88%	87.22%	20.16	0.5821	6.2108
Transportation-Ship	-16.52%	4.02%	19.98	-0.4193	1.4012
Rubber & Plastic Products	-11.23%	-7.30%	26.25	0.0220	1.1414
Pollution Control Eq & Svs	2.39%	17.77%	36.85	-0.0394	1.1384
Oil & Gas-Cdn Exp & Prod	-53.83%	-17.99%	21.38	-0.5721	1.8379
Movie/Tv Production/Distrib	-31.45%	-16.92%	28.57	-0.3159	3.0429
Medical-Drugs	6.71%	3.00%	24.86	-0.3197	1.8124
Medical-Biomed/Genetics	7.06%	11.86%	30.27	-0.2828	2.2394
Computer-Software	14.00%	25.84%	44.34	0.3216	15.5266

STOCK OF THE WEEK - BAK

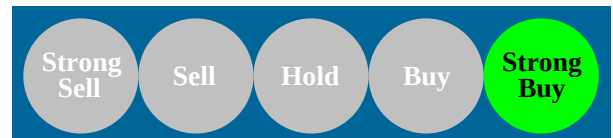
Comapny Name: Braskem Sa

Sector: Oils-Energy

Industry: Oil & Gas-Intl Integrated

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 11.96% since 2002.



Data Summary

Trade Date: Dec 12, 2019	Last Close: \$14.31	Avg Volume: 97066
1-Yr Forecast: 19.66%	Valuation: 118.78%	1-Yr Momentum: -43.59%
Forward P/E: 34.62	PEG Ratio: 0.29	Market Cap (bil): \$5.70
EPS Growth: 616.67%	Beta: 1.01	5-Yr Avg Return: -2.54%
Volatility: 44.77%	Sharpe Ratio: -0.06	P/S Ratio: 0.40
M/B Ratio: 6.54	Forward Dividend: \$0.37	Dividend Yield: 2.55%

Forecast Analysis

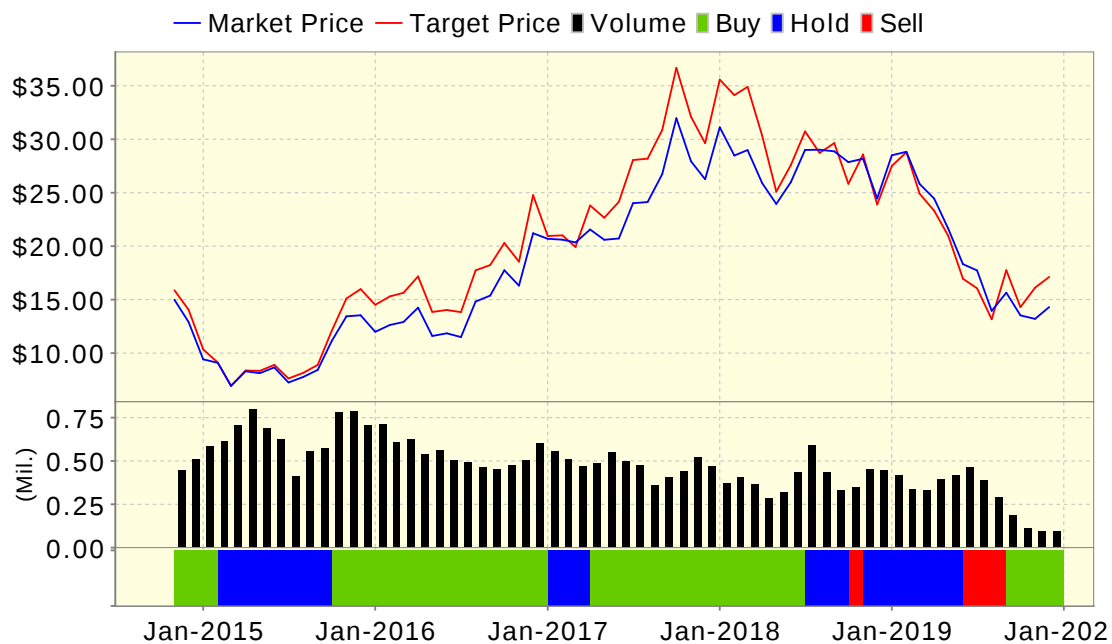
The predictive variables used in Valuengine's forecast model include both proprietary and well-established variables derived from credible financial studies and publications. We use a distinct forecasting model for each time horizon and apply the most advanced statistical/econometric techniques to ensure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

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

	Target Price	Exp. Return
1-Month	\$14.54	1.62%
3-Month	\$14.99	4.75%
6-Month	\$15.13	5.73%
1-Year	\$17.12	19.66%
2-Year	\$13.85	-3.20%
3-Year	\$11.24	-21.45%

STOCK OF THE WEEK - BAK

Price And Recommendation History



ValuEngine Evaluation & Rankings

	Value	Ranking
1-Yr Forecast	19.66%	100
Valuation	118.78%	3
1-Yr Momentum	-43.59%	9
P/E Ratio		30
Market Cap(bil)	5.7041	81
EPS Growth	616.67%	98
5-Yr Avg Return	-2.54%	42
Volatility	44.77%	37
Sharpe Ratio	-0.0568	45
P/S Ratio	0.40	85
M/B Ratio	6.54	23
Surprise	-34.66%	15

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 100: 0% of stocks have higher forecast returns.
- * Valuation rank 3: 97% of stocks are more undervalued.
- * Momentum rank 9: 91% of stocks have higher momentum.
- * P/E rank 30: 70% of stocks have lower P/E ratios.
- * Size rank 81: 19% of stocks have higher market capitalization.
- * Volatility rank 37: 63% of stocks have less volatility.

Business Summary

Braskem SA figures as the largest petrochemical operation in Latin America and among the five largest private companies in Brazil. With industrial facilities located in Alagoas, Bahia, S?o Paulo and Rio Grande do Sul, Braskem produces primary base petrochemicals such as ethylene, propylene, benzene, caprolactam, DMT and termoplastic resins (polypropylene, polyethylene, PVC and PET) gas and GLP.

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VALUENGINE'S METHODOLOGY

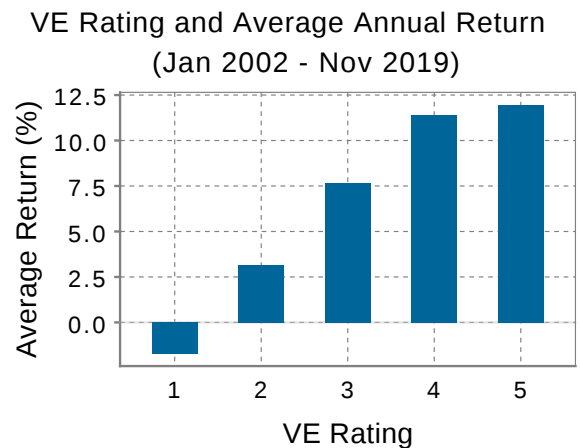
ValuEngine's research combines the most advanced academic concepts with real world Wall Street practice. The result is state-of-the-art fair market valuation and price forecasting technologies.

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



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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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