

Fair Value Section

Closing Price: Recent closing price. A **Star** is added if the closing price is less than the "Fair Value Buy Price".

Avg. High Yield Price: Price calculated by dividing current dividend per share by the *average* high dividend yield for each of the last 5-years (dividend per share divided by the year's low share price).

20-Year DCF Price: Price calculated by taking the Net Present Value (NPV) of the next 20 years of dividends and the estimated value of the stock at the end of 20 years. Below are the assumptions used for this company:

Discount rate: 15.0% **EPS growth rate:** 9.0% **Div. growth rate:** 7.3% **Calculated NPV:** \$37.55

Avg. P/E Price: Price calculated by multiplying the EPS (trailing twelve months) times the minimum of: 1.) 5-year average of high and low P/Es or 2.) Last years high P/E.

Graham Number: Price calculated by taking the square root of 22.5 times the tangible book value per share times EPS (lower of trailing twelve months or average last 3 years). Benjamin Graham, Warren Buffett's mentor and the father of value investing, developed rules for the defensively screening stocks. This formula uses his principles to calculate the "maximum" price one should pay for the stock. He believed, as a rule of thumb, the product of P/E ratio and price-to-book should not be more than 22.5 (P/E ratio of 15 x price-to-book value of 1.5). The 15 P/E was a result of Graham wanting his portfolio to have a yield equal yield to that of a AA bond (back then around 7.5%). The inverse of this yield is 1 divided by 7.5%. That works out to 13.3; he rounded up to 15.

Mid-2: and NPV MMA Price: Of the four fair value calculations, "Avg. High Yield Price", "20-Year DCF Price", "Avg. P/E Price" and "Graham Number", the highest and lowest fair values are excluded and the remaining two calculations are averaged to calculate the Mid-2 price. NPV MMA Price is price where NPV MMA equals the NPV MMA target.

Fair Value Buy Price: The lower of the Mid-2 price or the NPV MMA price.

Dividend Analytical Data

Dividend Growth Rate: The minimum dividend growth rate of the 1, 3, 5, 7, 10 year dividend growth rate or 15%, if "Rolling 4-yr Div. > 15%". Metric is True, if the dividend growth rate is 15% or greater.

Years of Div. Growth: Years of consecutive dividend growth. Metric is True for 15 or more uptrend years. An uptrend ignores a decrease if the current year is the current year is greater than 2-years prior.

Rolling 4-yr Div. > 15%: Dividends will double every 5 years if they grow by 15%. This test is TRUE if dividends grew on average in excess of 15% for each consecutive 4 year periods, within the last 10 years of history.

Free Cash Flow Payout: A Star is awarded if the Free Cash Flow Payout is less than 60% and there were no negative free cash flows during the last 10 years.

Debt To Total Capital: Having less debt provides a company more financial flexibility. A **Star** is awarded if the Debt To Total Capital is less than 45%.

Key Metrics: "Dividend Growth Rate", "Years of Div. Growth", "Rolling 4-yr Div. > 15%" and "Years to >MMA" are considered Key Metrics. A **Star** is awarded if 2 of the 4 Key Metrics are true.

Dividend Income vs. MMA

MMA Rate: Estimated 20 year Money Market Account rate. This rate is validated by looking at a 20 year Treasury rate.

NPV MMA Diff.: The basis of this calculation is a hypothetical \$1,000 investment in this stock and a MMA earning the MMA Rate above. The value calculated is the net present value (NPV) of the difference between the dividend earnings of this investment and the interest income from the MMA over 20 years. Other assumptions include: 1.) dividends grow at the Dividend Growth Rate above, 2.) dividends are reinvested, 3.) share price appreciation is not considered, 4.) interest income is reinvested in the MMA. A **Star** is added for amounts in excess of the target amount.

Target MMA Diff.: The Target is determined based on the number of consecutive years of dividend increases. The formula is:
Target = Base - (Years x Increment) + Minimum where Base=3,000, Increment=100, Minimum=500
Thus 0 years yields a **\$3,500** target and 30 years yields a **\$500** target.

Years to >MMA: The number of years until dividend earnings exceed the earnings from a hypothetical money market account earning the MMA rate above, considering the other assumptions listed in "NPV MMA Diff." above. This metric is True if the number of years is less than 5.

Risk Rating: A measure of how risky the investment is with 1 being the least risky and 3 being the most risky. The four factors considered are: 1.) Current Price vs. Calculated Price, 2.) Dividend Yield, 3.) S&P's Qualitative Risk Assessment and 4.) S&P's Quality Ranking. **Low** < 1.67, **Medium** 1.67 to 2.34, **High** > 2.34

S&P 500 | Aristocrat | Achiever:

S&P 500: Widely regarded as the best single gauge of the U.S. equities market, this world-renowned index includes 500 leading companies in leading industries of the U.S. economy. S&P 500 is a core component of the U.S. indices that could be used as building blocks for portfolio construction.

Aristocrat: S&P 500 Dividend Aristocrats is designed to measure the performance of S&P 500 index constituents that have followed a policy of consistently increasing dividends every year for at least **25** consecutive years.

Achiever: The Broad Dividend Achievers™ Index. Eligible companies must be incorporated in the U.S. or its territories, trade on the NYSE, NASDAQ or AMEX, and have increased its annual regular dividend payments for the last **10** or more consecutive years (**5** or more years for the International Achievers).

Disclaimer

The above quantitative stock analysis, including the Star rating, is mechanically calculated and is based on historical information. The analysis assumes the stock will perform in the future as it has in the past. This is generally never true. Material presented here is for informational purposes only. Before buying or selling a security, you should do your own research and reach your own conclusion.