Standard & Poor’s Stock Reports present an in-depth picture of each company’s activities, development, performance and outlook. With their vast array of analytical, factual and interpretive data, Stock Reports are an essential resource for identifying investment opportunities to fuel portfolio performance.

Each Stock Report is comprised of several proprietary features and quantitative measures that can be used to enhance the investment process, including STARS, Fair Value/Outlook, and Earnings/Dividend or Quality Rank. This guide will provide users with a more in-depth understanding of these proprietary features and give a framework for synthesizing the equity evaluations in a coherent manner.

**Using Standard & Poor’s Opinions**

Standard & Poor’s STARS (Stock Appreciation Ranking System) is designed to meet the needs of investors looking to put their investment decisions into perspective. STARS, which evaluates stocks according to their potential for price gains over the next six- to 12- months, are intended to summarize Standard & Poor’s recommendations into a decision-oriented format, ideally suited for building portfolios.

Standard & Poor’s STARS boasts an impressive historical performance, having beaten the market by a wide margin over the years. Since inception on 1/1/87 through 12/31/01, STARS outperformed the S&P 500 index on a calendar year basis 11 times, underperformed three times and tied the index once. In that same period, 5-STARS are +1152% versus +374% for the S&P 500 and -18% for 1-STARS. An investment of $10,000 in 5-STARS on 1/1/87 would be worth $125,200 at the end of 2001.

**Using Fair Value/Outlook Rank:**

In general, if other signals are mixed, we would recommend holding a stock if the Fair Value/Outlook rank is high or selling if the rank is low. The Timing Index, which further refines the ranking, is intended to help identify the right time to buy stocks, but its most important function is to indicate when it may be time to sell. Because stocks with a Fair Value/Outlook rank of 5 have historically produced the best results, Standard & Poor’s recommends buying only Group 5 stocks with a positive Timing Index. Then each stock should be held for as long as it remains in a positive timing trend - even if the ranking falls as the stock appreciates toward overvalued status. This will reduce transaction costs and, Standard & Poor’s believes, increase the chances of outperforming the market in the long run. It should also increase the number of transactions that will qualify as long-term capital gains for tax purposes.

**Using Fair Value/Outlook Rank & STARS:**

STARS is the analyst-driven, forward-looking assessment of a company and its objective counterpart is the Fair Value/Outlook rank, a quantitative measurement derived by a proprietary model incorporating artificial intelligence. Typically, the Fair Value/Outlook rank confirms the analyst’s STARS assignment and when used together with STARS to identify investment opportunities, the potential for superior return should improve. But because the two assignments come from different
perspectives, contradictions between the signals may arise. One of the primary reasons for this are the different measures used to determine the rankings.

When designating STARS, Standard & Poor’s analysts assess many factors that cannot be reflected in a model, such as risks and opportunities, management changes, recent competitive shifts, patent expiration, litigation risk, etc. In certain situations, the STARS assignment, provided by a Standard & Poor’s equity analyst, may have an advantage over the Fair Value/Outlook rank.

The Fair Value/Outlook model emphasizes a company’s history of earnings. This sensitivity to wide variations in reported earnings creates a confidence factor that may at times, result in too conservative a valuation, but its overall effect, Standard & Poor’s believes, is to make the model more reliable. Indeed, the Fair Value/Outlook rank has had a very good backtesting history.

A subset of the overall neural fair value universe, the Neural Fair Value 20 Portfolio consists of those 20 stocks with the greatest potential for short-term price appreciation. Backtested to 1995, the portfolio was officially launched in September 2000, making 2001 the first full year of actual “live” publication. For the twelve months ending December 31, 2001, the NVF20 Portfolio scored a 29.7% gain while the S&P 500 Index declined 13.0%. Since its inception at the end of 9/00 through the end of 2001, the portfolio has risen 42.8% versus a 19.6% drop in the S&P 500.

* Past performance is not a guarantee of future results. It should not be assumed that recommendations made in the future will be profitable. Performance calculations do not take into account reinvestment of dividends, taxes, brokers commissions and fees or other transaction costs. For a list of all stock recommendations made by Standard & Poor’s during the last 12 months and a description of the performance of these recommendations, please contact your Standard & Poor’s sales representative.
Because the Fair Value/Outlook model was designed to be sensitive to earnings history, companies with an inconsistent earnings history are penalized. Over time, earnings deviations will cause the model to skew the rankings and it takes awhile for the cumulative effect of earnings shifts to stop skewing the model's results. In other words, the model does not forgive but takes a "prove it to me" approach. Also, the model cannot be used with companies that are driven almost exclusively by prices, such as companies that deal in commodities.

While it may reduce risk to make stock selections where the Fair Value/Outlook rank and STARS agree, a discrepancy does not preclude an investment opportunity. Standard & Poor's believes a conflict should be seen as a reason for further investigation. To properly assess the anticipated movement of a stock, look at the other quantitative measures, such as Wall Street's Consensus Opinion, also available in the Stock Report.

Finally, because twice as many stocks are covered by the Fair Value/Outlook model as are covered by STARS, the Fair Value/Outlook rank provides guidance when there is no STARS coverage.

**Using Earnings/Dividend (Quality) Rank:**
Standard & Poor's Earnings/Dividend or Quality Rank is an evaluation of past performance as measured by the historical growth of a company's earnings and dividends over the past 10 years. This unique combination of proprietary calculations and qualitative measures is, in Standard & Poor's opinion, critical to the investment process. Standard & Poor’s believes the two most important factors in determining the price of a stock are earnings and dividend growth because this growth will most likely cause stock prices to rise over time. Earnings growth is important because it allows a company to pay higher dividends and these increasing dividends help offset the effects of inflation.

The model-driven quality rankings, which range from A+ to C, provide a snapshot view of a company's growth and stability of earnings and dividends; they are not intended to predict future stock movements or to represent specific buy, hold or sell recommendations. However, a special study by the Standard & Poor's Quantitative Analysis group found that over the years, on a risk-adjusted basis, the stocks that turned in the best performance, tended to be those with high quality rankings.

Scrutiny of our extensive database revealed that the single category with the top return relative to risk is A-, two notches below the highest in quality rank. The implication is that strong earnings and dividend histories do point to an increased likelihood of above-average long-term market performance. Stocks with the very best records, though, may command more of a price premium than issues a little below the top tier and therefore provide somewhat less room for appreciation, in Standard & Poor's view.

Remember that the ranking model penalizes companies that do not pay cash dividends or are in an embryonic stage without an established record of earnings or dividends. Therefore, it is possible for a company to have a low ranking yet be a desirable investment. Nor do the rankings take into consideration the price of a stock. An above-average ranked company can be overpriced just as a low-ranked company can be undervalued. For all these reasons, the Quality Ranking should be used not as a market recommendation but to help synthesize the other Standard & Poor’s quantitative and qualitative measures.
Standard & Poor’s
Stock Reports
Defined

Standard & Poor’s Opinion
Standard & Poor’s Opinion is an analyst-driven recommendation presented in the form of a buy, hold or sell signal. It is assigned in keeping with Standard & Poor’s proprietary system, the Stock Appreciation Ranking System or STARS, which ranks stocks according to forward-looking projections. The STARS selection process relies on a disciplined investment approach that combines fundamental security and technical analysis, sector weightings, reasonable turnover, performance-based bonus system, and a “top-down” overlay with influence from Standard & Poor’s Investment Policy Committee.

Standard & Poor’s Stock Appreciation Ranking System (STARS)
Standard & Poor’s began ranking a universe of common stocks in 1987 using a proprietary measure of potential for future performance over a six- to 12-month period. Equity analysts assign a one-to five-star rank according to their analysis of a company’s historic earnings, sales, products, management and other market indicators. STARS is based on the parameters as listed at right.

Unlike equity ratings from other financial firms, STARS is a forecast of a company’s future capital appreciation potential versus the expected performance of the S&P 500 before dividends. Analysts currently assign STARS rankings to approximately 1,100 U.S.-listed stocks in 122 sub-industries.

Standard & Poor’s Quantitative Evaluations
The quantitative evaluations offered by Standard & Poor’s Quantitative Analysis group are based on models using artificial intelligence that incorporate historical numbers and forward-looking growth projections. These impartial measures consist of Fair Value/Outlook Rank, Fair Value Price, Risk, Earnings/Dividend (Quality) Rank, Technical Evaluation, Relative Strength and Insider Activity.

Fair Value/Outlook Rank
This ranking is a signal based on the market price of a company’s stock versus the Fair Value price, Standard & Poor’s assessment of the price at which a stock should sell. If a company has a trading price greater than the Fair Value price, Standard & Poor’s assigns a low outlook (1 being the lowest, 5 being the highest) and considers the stock to be overvalued. Conversely, a stock that is trading lower than its Fair Value price is considered undervalued and assigned a relatively high outlook. Stocks with a rank of 5 are expected to generally outperform all other stocks and those rated 1 are expected to underperform all other stocks on average. Current coverage is 2,500 U.S.-listed stocks.
When possible, the model is based on 10 years of historical data but allows a minimum of 10 quarters to be used with newer companies. For companies that have been operating more than 10 quarters but fewer than 10 years, the analysis is based on all available data.

The Fair Value/Outlook rank is further refined with a Timing Index, a signal which indicates positive or negative momentum based on Standard & Poor’s studies of factors that affect trend direction. A stock that is in a strengthening or weakening position is identified with either a positive (+) or negative (-) symbol next to the ranking. For example, a 5+ Outlook indicates that the stock has a high outlook, is undervalued and has positive momentum, all good reasons, in Standard & Poor’s opinion, to buy that stock. A seemingly mixed rating, such as 4-, indicates that the company has a high outlook and is undervalued, but that its market timing evaluation may have weakened, thus indicating a possible reason for caution.

Together, the Fair Value/Outlook rank and Timing Index provide a buy, hold or sell signal to the investor. These are the suggested actions:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>5+</td>
<td>Buy</td>
</tr>
<tr>
<td>5</td>
<td>Hold if in portfolio</td>
</tr>
<tr>
<td>4+</td>
<td>Hold if in portfolio</td>
</tr>
<tr>
<td>4-</td>
<td>Sell</td>
</tr>
<tr>
<td>3+</td>
<td>Hold if in portfolio</td>
</tr>
<tr>
<td>3-</td>
<td>Sell</td>
</tr>
<tr>
<td>2+</td>
<td>Hold if in portfolio</td>
</tr>
<tr>
<td>2-</td>
<td>Sell</td>
</tr>
<tr>
<td>1+</td>
<td>Hold if in portfolio</td>
</tr>
<tr>
<td>1-</td>
<td>Sell</td>
</tr>
</tbody>
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**Fair Value Price**

The Fair Value price is a reflection of the price at which a stock should sell according to Standard & Poor’s quantitative analysis of what the stock should be worth. Fair Value price is intended to help investors quickly determine if a stock is a good buy and aims to identify undervalued stocks and signal when they reach price appreciation targets. This calculation, which is based on the company’s price-earnings ratios, price-to-book value, profit growth potential, return on equity relative to the S&P 500 and its industry group, and other factors, is run weekly. The Fair Value price can provide further guidance for stock selection when other signals are mixed.

**Risk**

Risk rates the volatility of the stock’s price over the past year. This volatility is correlated with the S&P 500 index.

**Earnings/Dividend Rank (Quality Rank)**

An evaluation of past performance, the Earnings/Dividend or Quality rank is another useful measure of a stock’s underlying strength. This ranking reflects Standard & Poor’s appraisals of growth and stability of earnings and dividends over the past 10 years for individual companies. These are the quality ranks:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Highest</td>
</tr>
<tr>
<td>A</td>
<td>High</td>
</tr>
<tr>
<td>A-</td>
<td>Above Average</td>
</tr>
<tr>
<td>B+</td>
<td>Average</td>
</tr>
<tr>
<td>B</td>
<td>Below Average</td>
</tr>
<tr>
<td>B-</td>
<td>Low</td>
</tr>
<tr>
<td>C</td>
<td>Lowest</td>
</tr>
<tr>
<td>D</td>
<td>In reorganization</td>
</tr>
<tr>
<td>NR</td>
<td>Not ranked</td>
</tr>
</tbody>
</table>
Quality rankings are derived from a computerized scoring system plus input from qualitative factors. Companies with high growth in earnings and dividends receive a higher rank than the ones whose earnings and dividends grow more slowly or not at all. Because these common stock rankings are based on historical data, they are not designed as a buy, hold or sell recommendation nor should they be confused with bond quality rankings. On a risk-adjusted basis, the stocks that turned in the best performance over the years, on average, were those with A+, A, and A-, the highest quality rankings. Current coverage is 3,500 U.S.-listed stocks.

**TECHNICAL EVALUATION**

Standard & Poor’s employs artificial intelligence to analyze past market history of stock prices and trading volumes to identify and project price trends for each stock. The models evaluate how the price of the stock is moving and the interrelationships between moving averages to ultimately determine buy or sell signals and decide whether the trends are bullish, neutral or bearish. The date the signals were initiated is also provided so users can take advantage of a recent or ongoing uptrend in price or see how a stock has performed over time since the last technical signal was generated.

**RELATIVE STRENGTH**

This measure shows, on a scale of 1 (lowest) to 99 (highest), how the stock has performed, as compared with all other companies in Standard & Poor’s universe of companies on a rolling 13-week basis.

**INSIDER ACTIVITY**

Gives an insight as to insider sentiment during the most recent six months by showing whether directors, officers and key employees are buying or selling the company’s stock.

**PERFORMANCE CHART**

The Performance Chart shows three or more years of price performance for the stock, presented in a logarithmic format that illustrates true percent changes in price. Upward arrows indicate an increase in reported quarterly earnings, downward arrows signal negative reports and arrows to the side indicate unchanged earnings. For those interested in momentum, the 10- and 30-day moving averages are also provided.

**ANALYST’S REPORT**

The Overview section of the analyst's report, which conveys the analyst's opinion and projections from a forward-looking perspective, provides a textual explanation of the company's income statement and how that translates into anticipated net growth or decline. Other important information such as competitive position and anticipated changes in the corporate structure are discussed. The Valuation section provides the justification for the buy, hold or sell recommendations. It expands on the information in the Overview section by incorporating quantitative analyses to provide further estimation of a stock's valuation. For companies not assigned a STARS ranking, the analyst's report will provide stock selection guidance.