



User Guide for Schwab Equity Ratings Report

■ The Schwab Equity Ratings Report will help you make informed decisions on equities by providing you with important additional information and analysis. Each position in your portfolio, whether you're buying or selling, should use a disciplined strategy regardless of investment style. This report will provide ideas you might consider in developing such a strategy.

The Schwab Equity Ratings Report is designed to support the stock research process described in our approach to stock selection and portfolio management (see our series, Managing a Portfolio Using Schwab Equity Ratings, in the Stocks article library of Market Insight for more details). This User Guide describes the key sections of the Report and corresponds to our step-by-step approach.

This Guide is generally written from a “buy” perspective. So, in considering stocks for purchase, think of this research as a process of elimination. If at any point in your research you identify something that makes you unwilling to consider buying a stock, eliminate it and look for another. For other buy ideas in the same sector, the Sector Stock List on page 2 of the Report displays other highly-rated stocks.

Report Diagram

The collage displays various sections of the Schwab Equity Ratings Report for Boeing Co. (BA NYSE). Key sections include:

- 1. STAR EQUITY RATING:** Shows an overall rating of 'Outperform' with a percentage of 29. It lists sub-ratings for different time periods: 1-10 (Strongly Outperform), 11-30 (Outperform), 31-70 (Market Perform), 71-90 (Underperform), and 91-100 (Strongly Underperform).
- 2. VOLATILITY OUTLOOK:** Rates average price volatility as 'Medium'.
- 3. VALUE BEHIND OUR RATING ON BA:** Provides a 'Value Behind Our Rating' score of 1.0 and a 'Rating on BA' of 'Neutral'.
- 4. VALUATION GRADE:** Rates balance sheet, income statement, and quality as 'Neutral'.
- 5. QUALITY GRADE:** Rates capital intensity and sentiment as 'Neutral'.
- 6. SENTIMENT GRADE:** Rates price momentum, analyst sentiment, and investor sentiment as 'Positive'.
- 7. RISK & VOLUME HISTORY:** Shows a 'Risk & Volume' score of 1.0 and a 'Volume History' of 'Up'.
- 8. MESS SUMMARY:** Summarizes the overall rating as 'Outperform'.
- 9. OVERVIEW:** Lists the sector as 'Aeronautics' and provides a brief company description.
- 10. METRICS:** Displays financial metrics such as revenue, earnings, and dividends over time.
- 11. OPINIONS:** Shows various analyst and institutional opinions, including a 'Recommendation' of 'Outperform'.
- 12. MESS DESCRIPTION:** Provides a detailed description of the company's business and its position in the market.

1 Start your Evaluation Process by Looking at the Schwab Equity Rating

What You're Seeing and Why

The "Schwab Equity Rating" section gives an overview of the current and prior week's Rating and percentile rank. Below the Ratings, you'll see a graphic view of the distribution of the Schwab Equity Rating and percentile ranks. The guidance corresponding to the stock's current Rating (A =

Strongly Outperform / Buy, B = Outperform / Buy, etc.) appears to the right of the graph, along with sources for additional information about Schwab Equity Ratings. This information about the Rating can help you quickly decide if a stock is a buy (or sell) candidate.

How to Use This Information

To begin your evaluation, examine the current Rating. Consider purchasing stocks rated A or high B (see the explanation of a high B below), with a preference for A-rated stocks, while considering D- and F-rated stocks as potential sell candidates. C-rated stocks can be considered as holds, or as a neutral opinion.

Lower percentile ranks for A and B-rated stocks are considered better buy candidates, while higher ranks are considered stronger sell candidates within D and F-rated stocks. For example, a Schwab Equity Rating with high B-rated stocks – those with percentile ranks between 11 and 15 – are generally expected to outperform B-rated stocks with percentile ranks between 25 and 30.

The percentile ranks can be used to refine your decisions by selecting stocks based on their percentile ranks and not just the Rating's letter

2 What is the Expected Price Volatility of This Stock?

What You're Seeing and Why

The Price Volatility Outlook section gives an overview of the current and prior week's Outlook. This information can help you set your expectations regarding a particular investment. Stocks that rank "high" are expected to experience above average

price volatility over the next 6 months. Stocks that rank "low" are expected to have below average price volatility over the next 6 months. This supplemental information is intended to help you select stocks that will help you meet your risk and return objectives.

How to Use This Information

Every investor is unique. We all have different financial goals and different levels of risk tolerance associated with achieving those goals. The classic example which highlights the differences between risk appetites compares someone close to retirement, guarding their nest egg, versus a young professional pursuing a selection of more risky positions to invigorate their portfolio. Schwab Equity Ratings' Price Volatility Outlook metric provides

some beneficial insights into the projected volatility of a particular stock to help you assess the goodness of fit for their unique financial goals.

We do NOT suggest you use the Price Volatility Outlook independently to make buy or sell decisions. Rather, it provides a process for projecting the future price volatility of a stock to arm the intelligent investor in his or her decision making.

3 Understand the Rationale for the Rating

What You're Seeing and Why

This section shows the Schwab Equity Ratings Component grades (Valuation, Quality, and Sentiment) and the Research Concepts associated with each Component. The Components and Research Concepts can help you make more effective use of the Ratings by providing an understanding of the basis for a stock's rating and why it changed (if it did). For more information on the Components and Research Concepts, see our Schwab Equity Ratings Foundations document in the Stocks article library.

This section provides two levels of perspective. At the first level, the "Rationale" section displays the current grades for the three Components. Component grades can be interpreted in the same

manner as the A/B/C/D/F grades for the overall Rating. Moving to the next level of detail, under each Component you will see the Research Concepts which form the basis for each Component grade. To the right of each Research Concept are the current and prior week's scores. Positive/Neutral/Negative scores are equivalent to A or B (Positive), C (Neutral), and D or F (Negative). Declines from the past week are indicated by downward-pointing arrows, improvements by upward-pointing arrows. The importance of each Research Concept is shown in the column on the far right. To see a more detailed explanation of the Research Concepts on schwab.com, enter a ticker, click on the **Ratings** tab and the **Schwab's Viewpoint** tab, and click on the "Expand All" link.

How to Use This Information

We do NOT suggest that you allow Component grades to override the overall Schwab Equity Rating. Instead, consider each Component grade as illustrating various aspects of a stock's overall Rating.

Valuation: This Component is based on several value-oriented investment criteria. Valuation grades may change at any time, since the Research Concepts used employ financial statement data, market prices, and information about the behavior of short sellers.

Quality: This Component is based on financial performance and earnings quality measures drawn from recent financial statement data. In general, the release of new financial statement data may cause a change in a stock's Quality grade, though the grade may change at any time.

Sentiment: This Component uses several measures of short-term changes in investor expectations, including the sentiment of brokerage firm analysts and the overall market. Sentiment grades can change at any time and will generally change more frequently than the grades of the other Components.

If a stock's grade has changed since last week, the "Rationale" section may help you understand what drove the change. For example, in the Quality component, changes in operating profitability may indicate a company's potential to increase profits through margin expansion or the possible erosion of profits through price competition. In the Sentiment component, recent changes in the earnings estimates and ratings of brokerage analysts may be an early sign of changing market sentiment.

4 Suitability: Is This Stock Appropriate for Your Portfolio?

What You're Seeing and Why

This section is intended to allow you to quickly determine whether or not the stock you're considering is appropriate for your portfolio, given your investment objectives and strategy. There are four parts of this section:

Business Summary: Provides a brief description of the company's key business or businesses, economic activities (manufacturing, distribution, etc.), and geographic scope if applicable. Information is provided by Standard & Poor's. An expanded description, provided by Reuters, is shown on page 2 of the Report.

Overview: Classifies the stock in terms of price (the closing price as of the date listed), market capitalization (based on most recent quarterly shares outstanding and closing price), the stock's

capitalization-based asset class (large-, mid-, small-, or micro-cap), and its beta (a measure of the stock's co-movement with the market in general, with higher values generally considered as riskier).

Sector/Industry: Displays the stock's Sector (the economic category of its primary business activities), industry, and sub-industry. This section also displays the Schwab Sector Viewpoint, representing Schwab's outlook for the company's sector in the intermediate term.

Metrics: This section displays measures that generally describe the company's performance characteristics, grouped into Value, Growth, Momentum, and Financial metrics. For comparison, the company's values are shown relative to those of the Standard & Poor's 500 Index whenever possible.

How to Use This Information

Based on the financial and other data presented here, you can determine suitability by assessing the stock's characteristics relative to your investment objectives, risk tolerance, strategy, and current portfolio holdings. Here are some general guidelines for each category of metrics.

Business Summary: Understanding what a company does can help you interpret how recent news may affect the company. If the company's business or activities seem hard to understand, consider eliminating the stock from consideration and searching for another.

Overview: If you are currently overexposed to a capitalization category, or you believe the stock is not consistent with your investment objectives or

your portfolio based on its capitalization or beta, eliminate it and look for another (check the Sector List for stocks in the same sector).

Sector/Industry: You should know the sector in which the company operates in order to maintain your portfolio's sector diversification. Proper diversification across sectors is vital because it can help reduce your portfolio's expected risk without reducing expected returns.

Metrics: If your investment objectives and strategy specifically seek out stocks with particular characteristics (e.g., strong price momentum, high earnings growth forecasts, positive dividend yields), use the appropriate metrics to assess whether a stock is consistent with your preferences.

5 Check the Market's Sentiment

What You're Seeing and Why

Schwab believes that the stock market is relatively efficient at incorporating news and significant events into a stock's price. The purpose of a market sentiment check is to look for evidence of recent changes in investor perception as reflected in the stock's price history, earnings reports, and performance relative to the market, as the market's reaction to this evidence is believed to be indicative of future performance. The price chart in the upper portion of this section shows the stock's price over the past year, relative to its 200-day moving average.

How to Use This Information

At the individual company level, markets react for a reason, so try to determine the reason for any unusual price or volume behavior. Price changes are most informative when viewed relative to a broader market index, such as the S&P 500 index. Check for recent spikes, up or down, in relative prices and volume as possible evidence of a market reaction to an earnings announcement, including those with positive or negative surprises. Other price changes may indicate the release of news that merits further research. If such evidence appears, check the company's earnings and news as described below.

The stock's price performance relative to its own historical prices, as measured by the 200-day moving average, provides a view of intermediate-

The company's quarterly earnings per share reported during that period, the positive (green up arrow) or negative (red down arrow) earnings surprise generated by those earnings if applicable, and the stock's weekly trading volume included in this chart. The price chart in the lower portion section shows the stock's price over the period in percentage terms, relative to the Standard & Poor's 500 stock index. Both price lines begin at 0%, making it easier to evaluate the stock's relative price performance.

term price trends. If you observe a downward trend in the current price relative to the moving average, eliminate the stock and look for another.

The expected date of the company's next earnings announcement is worth noting. If an earnings report is expected within 1-2 weeks, we recommend that you consider waiting until after the report to assess the market's reaction. An earnings announcement, and the market's reaction to it, is a "known unknown" – a source of risk that can potentially be reduced by waiting for more information. If a company's earnings report is late, eliminate the stock and look for another – late reporting may indicate negative news.

6 Check the Company's Earnings

What You're Seeing and Why

This section displays the company's earnings, revenues, and dividends (if paid). Reported earnings, revenues, and dividends are shown for the past 4 fiscal quarters and years. Estimated earnings and revenues are shown for the current quarter and

year if available. In addition, this section provides information about the consensus forecasts of brokerage analysts for earnings for the current and following fiscal years and the consensus long-term

EPS growth rate estimate. It also provides the recent change (if any) in these consensus forecasts, the number of estimates for all three measures, and their range from minimum to maximum.

Schwab believes there is useful information in a company's quarterly and annual earnings announcements, and the earnings forecasts of

brokerage analysts. Thus the predictive aspects of many of these measures have already been incorporated in the Schwab Equity Ratings. The data in this section, therefore, is provided purely to give you a better understanding for the stock's overall Rating.

How to Use This Information

You should not use information about earnings, revenues, and dividends in this section to override the stock's Schwab Equity Rating. Instead, consider each section as illustrating various aspects of a stock's overall Rating.

Under the Earnings Per Share Section

EPS history and forecast: Among other factors, Schwab Equity Ratings considers the history of a company's earnings surprises, and prefers companies with a pattern of positive surprises.

of analysts: Companies followed by relatively large numbers of sell-side analysts are generally believed to offer fewer opportunities for "surprise anticipation" (one of the foundational principles of Schwab Equity Ratings), possibly because those analysts have done exhaustive and careful research on the company.

Expected earnings announcement dates: An earnings report represents a potential "event risk" - the chance that reported earnings will be significantly worse than the market's expectations. If an earnings report is expected within 1-2 weeks, we recommend that you consider waiting until after the report to assess the market's reaction. If a company's earnings report is late, eliminate the stock and look for another - late reporting may potentially indicate negative news.

Under the Revenue Section

In general, a firm's revenues have less predictive power than its earnings. As with earnings, many of the predictive aspects of revenues have already been incorporated into Schwab Equity Ratings. A pattern of positive revenue growth (the "vs. prior year (%)" row), both quarterly and annual, is usually preferred.

Under the Annual Earnings Forecasts Section

Brokerage analysts revise their forecasts and ratings when they receive new information about companies, and those revisions frequently move stock prices in the same direction. But Schwab research has found that often the analysts, and the market as a whole, initially tend to underreact to new information, leading to follow-on effects on performance. Positive recent revisions of earnings and growth forecasts, along with a moderate range of values for analysts' estimates are preferred.

Under the Dividends Section

If a company has paid a dividend, look for stable to increasing dividend growth on an annual basis. Under normal circumstances, rising dividends may be a signal of a healthy, growing company.

7 Check the News

What You're Seeing and Why

Schwab Equity Ratings are generally available by Monday mornings. You should always check for recently released news on any stock before you make a decision to buy or sell, because recent news may not be reflected in the current Rating. Page 4 of

the Schwab Equity Ratings Report displays news stories that have occurred over the period shown in the price chart at the top of the page. Each news story is identified by a number that corresponds to the numbers shown at the top of the chart.

How to Use This Information

Review news about the company with your understanding of its business, industry, and recent price and volume behavior in mind. Look for news items that are both material and recent. Earnings restatements, divestitures or acquisitions, product news (recalls, product releases), legal issues (product-related lawsuits, antitrust developments), company-specific news (auditor or senior

management changes) and other factors may be relevant. Concentrate on recent news that may not yet be incorporated into the Schwab Equity Rating via price movements or analysts' sentiment. If you observe news that seems to explain a price and/or volume spike and makes you unwilling to consider the stock for purchase, eliminate it and look for another stock in the Sector List.

8 Check for Other Opinions

What You're Seeing and Why

In keeping with Schwab's goals of objectivity and transparency, we make available access to the research and recommendations of independent research firms (Standard & Poor's, Credit Suisse, Ned Davis Research, Argus Research, Reuters, and Market Edge). The use of independent third-party research is optional – Schwab believes that Schwab Equity Ratings are the most useful source of information for our clients, since we believe them to be objective,

consistently applied, and equally balanced between low and high ratings. But independent third-party research may provide an additional perspective a company and its industry, allowing you to better evaluate news and company or industry developments.

To access a third party's independent research, click on the "Reports" tab of the **Research >>> Stocks** page and view the vendor's research report for the company.

How to Use This Information

You should neither expect nor require a stock's Schwab Equity Rating to conform to a third-party opinion, and a third-party opinion should generally not override a stock's Rating. Studying the third party research firm's rationale for its rating may give you a better understanding of the company's operations

and the potential performance risks of its stock.

Buying a stock: For stocks with Ratings of A or high B, research the basis for a third-party recommendation of "sell" or "underperform," by

clicking on the “Reports” tab of the **Research >>> Stocks** page and viewing the vendor’s research report. If you see what seems to be a compelling reason for a negative rating on a stock rated A or B by Schwab Equity Ratings, eliminate it from consideration and look for another.

Selling a stock: In general, consider selling stocks with Schwab Equity Ratings of D or F in spite of “buy” or “outperform” opinions from third-party research providers.

Schwab Equity Ratings use a scale of A, B, C, D and F, and are assigned to approximately 3,000 stocks headquartered in the United States and certain foreign nations where companies typically locate or incorporate for operational or tax reasons. Schwab's outlook is that A-rated stocks, on average, will strongly outperform, and F-rated stocks, on average, will strongly underperform the equities market during the next 12 months. Schwab Equity Ratings are not personal recommendations for any particular investor. Before buying, investors should consider whether the investment is suitable for themselves and their portfolio. Schwab Equity Ratings should only constitute one component in your own research to evaluate stocks and investment opportunities.

The information provided is for general informational purposes only and should not be considered as an individualized recommendation or personalized investment advice. The investment strategies mentioned here may not be suitable for everyone. Each investor needs to review an investment strategy for his or her own particular situation before making any investment decision.

All expressions of opinion are subject to change without notice in reaction to shifting market conditions. Examples provided are for illustrative purposes only and not intended to be reflective of results you can expect to achieve.

4 week price change: Percentage change in the price of a security from the day's closing price 4 weeks prior to the most recent closing price.

52 week price change: Percentage change in the price of a security from the day's closing price 52 weeks prior to the most recent closing price.

3 year EPS growth: A measure of growth in a company's net income over a 3 year period. The term can apply to actual data from previous periods or estimated data for future periods.

3-5 years EPS growth forecast: The consensus value (arithmetic mean or average) of all long-term earnings growth estimates provided by contributing sell-side analysts.

Announcement Date: The date on which a company's directors meet to announce the date and amount of the next dividend payment. Once the payment has been authorized, it is called a declared dividend, which is a legal liability. Compare with Earnings Announcement Date and Expected Earnings Announcement Date.

Book Value: The value of the shareholders' equity, or net worth, of a company, calculated by subtracting the company's total liabilities from its total assets. Total assets and total liabilities are generally measured at their historical costs rather than at current market values. Consensus Forecast: Generally, the arithmetic mean (average) of all sell-side stock analysts' forecasts of a company's earnings, revenues, etc. for a particular period.

Dividend Yield: The company's Indicated Annual Dividend divided by the current market price of its common stock.

Earnings Surprise: The amount by which a company's reported earnings differ from the consensus analyst earnings forecast, expressed as

a percentage of the consensus forecast. Earnings surprises may be positive or negative, and are often followed by corresponding positive or negative movements in the stock's price.

EPS: Earnings per share, or the company's income divided by the average number of common shares outstanding over the period when the income was earned. Income may be measured in various ways (e.g., before or after "extraordinary gains or losses," before or after adjusting for the possible conversion of convertible bonds or convertible preferred stock, etc.)

EPS % Change: Average estimate for the current time period compared with actual earnings from an equivalent previous time period. Comparisons can be made with equivalent changes in the stock's own industry as well as the broader market as a whole.

Forecast Range: The difference, in absolute value, between the highest and lowest forecasts of a group of earnings or other forecasts.

Indicated Annual Dividend: Generally, a company's most recent quarterly dividend multiplied by 4, effectively converting the quarterly dividend to an annual amount.

Long-Term Debt/Capital: Long-term debt capital, including capital leases, divided by total assets. This ratio describes the company's reliance on debt to finance its assets. When calculating this ratio, it is conventional to consider both current and non-current debt and assets. In general, the lower the company's reliance on debt for asset financing, the less risky the company is believed to be, since excessive debt can lead to heavy interest and principal repayment burdens.

Market Capitalization ("market cap"): The total market value of the company's outstanding common stock, measured as the current market price times

the number of common shares outstanding as of the end of a fiscal period, usually a quarter.

Net Margin: Net profit divided by net revenues, usually expressed as a percentage. This number is an indication of how effective a company is at cost control. The higher the firm's net margin, the more effective the company is at converting revenue into actual profit. The net margin is a good way of comparing companies in the same industry, since such companies are generally subject to similar business conditions.

Number of Forecasts: The number of sell-side analysts contributing to the Consensus Estimate. **P/E, forecast EPS:** A Price/Earnings ratio defined as the current stock price divided by a consensus EPS estimate. Most commonly, the ratio uses the EPS estimate for the current fiscal year. Less commonly, a Forward Four Quarters (FFQ) version divides current stock price by the sum of the mean EPS estimates for the next four fiscal quarters.

PEG Ratio: The Price/Earnings ratio, based on EPS of the last reported fiscal year, divided by the average estimated long-term (3-5 year) growth rate. Lower PEG ratios are believed to represent growth stocks selling at better valuation multiples.

P/E Last 4Q: A variant of the Price/Earnings ratio defined as the current price divided by the sum of reported earnings per share for the latest four quarters.

Price/Book (P/B) ratio: A company's market capitalization divided by its book value. Price/Book is the same whether the calculation is done for the whole company or on a per-share basis, calculated as the stock's current price divided by book value per share. This ratio compares the market's valuation of a company to the value of that company as indicated on its financial statements. Stocks with low Price/Book ratios are frequently described

as undervalued.

Price/Earnings (P/E) ratio: the ratio of a company's current stock price to an earnings per share measure. Price/Earnings is the same whether the calculation is done on a per-share basis or for the whole company, calculated as the stock's current income divided by its market capitalization. This ratio compares the market's valuation of a company to the earnings of that company as indicated on its financial statements. Stocks with low Price/Earnings ratios are frequently described as undervalued.

Price History chart: A visual representation of the closing share price of the company over time and relative to a 200-day moving average of its prices. The earnings for the quarters that were reported during that period are also shown.

Return on Assets (ROA): A measure of a company's profitability, equal to the latest twelve months' or fiscal year's earnings divided by its total assets, expressed as a percentage.

Return on Equity (ROE): A measure of how well a company used reinvested earnings to generate additional earnings. ROE is equal to the latest twelve months' or fiscal year's after-tax income (after preferred stock dividends but before common stock dividends) divided by book value, expressed as a percentage. It is used as a general indication of the company's efficiency by measuring in percentage terms the profit the company generated using the resources provided by its stockholders.