



## Fundamental vs. Technical Analysis

Controversy between the two schools is still alive and well

BY CYNTHIA HARRINGTON, CFA

Sometimes the truth of a matter isn't so obvious. A South American historian once remarked that despite the rapid spread of Catholicism among indigenous peoples in the New World, people continued to celebrate the rituals that brought good weather, plentiful crops, and healthy lives. As the writer said, "Under every Catholic altar in South America lurk the pagan gods of the ages." According to some, technical analysis tools are similarly hidden under stacks of financial statements in the desk drawers of fundamental analysts.

"It's an old Wall Street tale," says John Bollinger, CFA, CMT. "Fundamental analysts would get their list of top stocks and, when no one was looking, would pull out their charts to decide when to buy or sell. Yet most fundamental analysts tend to think of technical analysis as chicanery and charlatanism."

Bollinger runs the Manhattan Beach research and asset management firm that bears his name. He is one of the 380 investment professionals who have straddled the subjects of fundamental and technical analysis and achieved both the designation of chartered financial analyst as well as chartered market technician. The Market Technicians Association administers the CMT designation.

"In general, I believe that fundamental analysis has more value than technical analysis because it provides a much deeper framework for valuing stocks or bonds than just looking at patterns in past price movements," says Andreas Sauer, Ph.D., CFA, managing director & CIO of UNION PanAgora in Frankfurt, Germany.

Sauer belongs to the community of fundamental analysts who readily admit the use of both sets of tools. "We employ

momentum and reversal factors in all of our own equity and bond models."

Christopher Orndorff, CFA, managing principal, head of equity strategy, Payden & Rygel, Los Angeles, Calif., USA, is also an unabashed member. "We use both technical and fundamental analysis for both fixed income and equity," he says. "Fundamental analysis really drives the decision of which securities we want to own. But the timing of purchase and sale decisions is split pretty evenly between technical and fundamental."

Like Sauer, Orndorff's group at the US\$40 billion asset and mutual fund manager employs a couple of technical indicators. "We try not to outsmart ourselves," says Orndorff. "We use moving averages, moving average crosses, and oscillators. We believe that with just these three factors we get 80 percent of the usefulness of technical analysis."

Bollinger coined the term for the juncture of technical and fundamental analysis almost 20 years ago. He calls it "rational analysis." "If you've got two toolboxes, one labeled 'tools for red cars' and the other 'tools for blue cars,' what would you do if you wanted to work on a white car? The rational approach would be to use the best tools from each box," he says. "Rational analysis is made up of the finest fundamental tools and the finest technical tools."

Not all professionals stand in the middle where technical and fundamental analyses coexist, however. Adherents to one school of thought assume a much more warlike stance toward the other. "There are forces polarizing fundamental and technical analysts," explains Bollinger. "The whole idea of the efficient market hypothesis is most often what fundamentals use to attack technicals. If the market is efficient after all, then there is no opportunity to

### KEY POINTS

- Technical analysis is based on the belief that the market is not efficient.
- Technical analysts use indicators that are independent of the company's financial condition.
- Fundamental analysts focus on the financial health of companies.
- Fundamental analysis chooses stocks to buy; technical analysis chooses when to buy for analysts who use both.
- Proponents of strong form efficient market theory and technical analysts are at opposite ends of the philosophical spectrum.

find the inefficiencies that technical analysts look to find."

"Sure, we bump into the controversy between the two schools," says Orndorff. "There are investors who adhere to the strong form of the efficient market and believe that all information is reflected in the current price, and it's impossible to make any above-average returns.

"We don't think that's entirely accurate. We think all markets are sometimes inefficient. People miss things. The last couple of years are a great example, both the up and down movements."

Technicians are also faced with a new opponent — that of quantitative analysis. "The technical analysis community has split in the last 20 years with a great big piece cleaving off and calling themselves quants," says Bollinger. "If you go down the halls in big institutions today, you will find lots of doors labeled 'quantitative analyst.' They're getting highly paid, unlike technical analysts.

"They took a large body of knowledge from the technical approach, made it rigorous, fired it up with higher math and statistical power, and incorporated parts of fundamental analysis. Some use relative strength with ideas like alpha, earnings growth, and cash flow."

Edward Best, CFA, managing director and senior analyst for Trusco Capital Management, Atlanta, Ga., USA, is one of those in the new camp. "We

don't use technical analysis, we use quantitative," says Best of the decision-making process for the US\$47 billion under management for institutions and the STI Classic Family of Mutual Funds. "Technical analysis is related to stock price and volume, things like charting price momentum. Quantitative is statistically based. We use excess return forecasting and fundamental indicators such as earnings, earnings trends estimates, and growth rates."

Sauer admits to using technical indicators but sets his work in the broader context of quantitative modeling. "In general, quantitative analysis is based upon the idea that an investment philosophy can be expressed as a statistical model. A quant model may be built on a variety of different sources of information or factors to find undervalued securities," he explains.

"A pure 'technical analyst' is looking for specific price patterns in the past to predict the future and builds his analysis solely on these factors. A quant usually relies on a more diversified set of information. I'm a strong proponent of quantitative analysis based on a diversified set of information because

I believe that relying on one kind of information to find superior stocks or bonds carries too much risk."

Researchers are looking for connections between the statistical rigor of the quantitative world and the potential of technical indicators. One study published in the *Journal of Finance* in August 2000 by Andrew Lo, Harry Mamaysky, and Jiang Wang concluded that a bridge over the gulf between technical analysis and quantitative finance could be built on the smoothing technique of "non-parametric kernel regression." The statistical method "identifies regularities in time series of prices by extracting nonlinear patterns from noisy data," which expands on the otherwise linear data series in technical analysis. The authors concluded that "traditional technical analysis can be improved by using automated algorithms, and theirs is one of many possible techniques." (Joseph D.V. Vu, CFA, *The CFA Digest*, February 2001)

Nor are the quants the only defectors. Bollinger says the new field of behavioral finance broke away from the technical analysis fold as well. "Right at the heart of the matter is that a market

technician is nothing more than a psychologist looking to determine and describe the mood of the market," he says. "In many cases, the behavioral finance practitioners cleaved off technical analysis and renamed the work they do. They just wrap the old in different wrapping paper."

While the controversy continues to grow, at least one person believes that more fundamental analysts are checking their charts these days. "Lots of analysts are more cynical today. More are agreeing with the technical analysts who say that financial numbers don't mean a thing and the books have always been cooked," admits Orndorff.

"But to say that all they need to pick stocks and bonds is to see price movements doesn't seem to be enough either. That method is no different than trading wheat, corn, or cattle futures," he says. "Most CFA charterholders differ with that approach, or we did all that studying for nothing." //

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## TOOLS OF THE TRADE

### Technical Analysis Trading Rules and Indicators

- Trend channels
- Support and resistance levels
- Moving average lines
- Relative strength
- Charting of prices and volume
- Contrary opinion indicators
  - Mutual fund cash positions
  - Credit balance brokerage accounts
  - Investment advisory opinions
  - OTC versus NYSE volume
  - CBOE put/call ratio
  - Traders bullish on stock index futures
- Follow the smart money
  - Barron's confidence index
  - T-bill/euro spread
  - Short sales by specialists
- Breadth of market
- Short interest
- Stocks above 200-day moving average
- Block uptick-downtick ratio

### Fundamental Analysis Valuation Models and Factors

- Dividend discount models
- Free cash flow models
- Residual income models
- Price to earnings ratio
- Price to book ratio
- Price to sales ratio
- Price to cash flow ratio
- Enterprise value to EBITDA
- Dividend yield
- Return on equity
- Operating and profit margins
- Asset turnover ratios
- Leverage ratios
- Earnings growth rates
- Free cash flow growth rates
- Growth rates of dividends, cash flow, and earnings
- Risk free rate and risk premium

Sources: *Investment Analysis and Portfolio Management*, 6th edition  
*Analysis of Equity Investment: Valuation*