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Where To Focus Your Efforts

What type of analysis is likely to benefit the active trader? Which field of research is more suited for seeking market outperformance? Which is more tailored for those looking for consistent returns? Let's find out.

by Stephen Beatson

Time is a valuable commodity. So expending time and effort on R&D in areas that hold little or no promise of financial reward is in essence just wasted time, assuming you're not in the game only for academic enlightenment.

In this article I'll look at a few categories of financial analysis to try and determine which one is most likely to be of benefit to the active investor or aspiring trader. I'll also try to ascertain which field of research is more suited for those seeking market outperformance and which is more tailored for those looking for consistent returns.

THERE'S FUNDAMENTAL ANALYSIS

Most mutual funds use fundamental analysis to select stocks for their portfolios. Fund managers and financial advisors pour over financial statements and attempt to find what others may have missed. Those who are more directly familiar with the day-to-day operations of a company might use this additional insight to help place their bets. However, considering that these days only a small minority of funds manage to consistently outperform the market, you have to wonder if trading profitably using fundamental analysis is a realistic goal for the self-directed trader. If the brightest minds in the largest financial institutions can't consistently beat the market, who are we to think that we can do better?

The financial statements of your average large or medium cap stock have all been sliced and diced to death by countless analysts, so you can safely assume its price is the product of a large consensus. Finding additional actionable data, barring insider or privileged information, is therefore unlikely. Small caps and penny-stocks, however, receive considerably

BASIC TECHNIQUES

less scrutiny, so it could be argued that fundamental analysis may be more useful here. However, small caps tend to be very volatile and often move based on anything but fundamentals (news, rumors, pump & dump, etc). This makes it difficult to structure a solid small-cap portfolio around fundamental research alone.

MACROECONOMIC ANALYSIS

Traders with a strong background in economics may be tempted to seek outperformance by looking at the big picture—analyzing the relative strengths of different market sectors, economies, or even continents (comparing emerging markets vs. Europe vs. North America, for example). Domestically, the smart money has been known to find outperformance by predicting macroeconomic changes (for example, the US housing crash) or to profit from the market bias that can result from government intervention (for example, quantitative easing).

Macroeconomic analysis is often used by hedge funds, which have the ability to tap into a multitude of investment vehicles both at home and abroad, and which can profit from both long and short positions. A number of these funds do manage to consistently outperform the market. However, trades based on macroeconomics are few and far between, plus the investment timeframes tend to be long. So I don't believe that trading macroeconomic strategies can provide consistent positive returns, year in year out, for the average independent trader.

SECTOR ANALYSIS

Traders interested in sector analysis seek to exploit major shifts in market segments, often driven by technological innovation and a resulting change in consumer behavior. Traders bet on companies, or groups of companies, that show promise and bet against those that don't. These decisions are not based on fundamental analysis, although this may also be used, but rather on the expectation that a major market shift is taking place.

An example of a pair trade based on sector analysis in the bookselling industry is to have gone long Amazon (AMZN) and short Borders. Another example, this one in the entertainment industry, is to have gone long Netflix (NFLX) and short Blockbuster. Betting on the (now obvious) shift from brick & mortar trade toward online sales would have made the insightful speculator very rich.

Trading profitably using sector analysis is within reach of most people. What is needed is the ability to see the big picture, plus the conviction and self-confidence required to put these trades into play. Unfortunately, similarly to bets based on macroeconomic research, sector analysis trade setups tend to be infrequent, so it's not realistic to expect predictable and recurring returns from this style of trading.

TECHNICAL ANALYSIS

Technical analysis is a concept undoubtedly known to anyone reading these pages. It offers a useful way to graphically represent market events: recent highs, bullish periods, areas of support & resistance, changing trends, and so on. Moreover, technical analysis provides a practical way to categorize otherwise subjective market conditions. For example, a bull market could be defined as an S&P 500 close above the 200-day moving average (MA), or as a 50-day MA above the 200-day MA. A *breakout* could be defined as a close above a specific Bollinger Band, or maybe a close above a 50-period high. This ability to clearly define market conditions allows the trader to use technical analysis systematically, that is, as a trigger or filter in mechanical systems.

One of the major strengths of technical analysis is that most

market participants either actively use it, or at the very least, keep a close eye on it, making it something of a self-fulfilling prophecy. For example, traders holding long positions will often choose to take profits at a key resistance level (yesterday's high, pivot point,

10-day moving average, and so on) because they expect prices to hit a ceiling and possibly revert downward. These traders will therefore sell their positions at those levels, thereby applying downward pressure on price. So in this example, the mere expectation of resistance has helped create the resistance itself.

At its worst, technical analysis is considered the astrology of finance by those who don't follow technical analysis, who think of it as a world full of gurus with a colorful lexicon (shooting star, inverted hammer, dead-cat bounce), all experts at explaining market movements after the fact through their analysis of charts. Indeed, the problem with using charts alone is that it can rarely be used to generate actionable trading signals. Moreover, people will see what they want to see in a chart. So it's important to not get caught up in the mumbo jumbo, but rather focus on what can truly add value to a trading plan, such as determining trend and recognizing some key resistance levels.

In summary, while a discretionary trader may well be profitable using technical analysis as a tool, I don't believe that traditional (that is, chart-based) technical analysis alone can be used as the cornerstone of a profitable mechanical trading system.

QUANTITATIVE ANALYSIS: EXECUTION EDGE

In tandem with the rise of the machines, the past two decades have witnessed the rise of the *quants*. Quantitative analysts, who used to fill back-office or risk-management support roles for trading desks, have seen their influence grow substantially. In fact, their role has grown so much that there are now many firms whose trading activities are

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based exclusively on algorithmic trading.

Algo trading outfits make their money predominantly by exploiting *execution edges*. The market inefficiencies behind these edges are often extremely short-lived and can only be exploited using high-speed trading. The competition for these small but recurring profits is fierce and the resources employed by market participants are huge. But even some of the most potent names in the industry have at some point been humbled by the very technology they employ, either because they got overrun by the complexity of the system (for example, Knight Capital in 2012) or because their trading algorithms fell apart during times of extreme volatility (for example, Citadel Tactical Trading and many other firms in 2008).

It has also been suggested that algorithmic edges are getting increasingly difficult to exploit as more and more players have gotten into the game. Moreover, some of the more controversial techniques used by algo trading firms such as spoofing came under scrutiny and were deemed illegal after the Dodd-Frank financial regulatory law of 2010.

Realistically, this arms race is simply beyond reach of the average trader, however clever and well-equipped he may be. Statistical arbitrage, high-speed trading, market making, and other execution-edge trading techniques are best left to those with the resources needed to execute them. So getting a faster DSL line for your home office or upgrading your computer's CPU isn't going to help you win this game!

QUANT ANALYSIS: STATISTICAL EDGE

Another major field of quantitative analysis focuses on finding statistically significant patterns in historical data. The objective here is to identify a recurring setup (either empirically or by testing a hypothesis) and to quantify its statistical relevance through backtesting. Once you identify an *edge*, the next step is to determine whether the setup is actually *tradable*, that is, whether it can be used profitably going forward after allowing for commissions and slippage. The patterns that quantitative analysts look for can be seasonal, trending, breakout, or mean-reverting in nature. The more common metrics used in pattern analysis are price action, volume, breadth, and relative strength.

Statistical edges are surprisingly prevalent in stock market time series. Seasonal bullishness or bearishness, for instance, can be found in monthly charts (some months are more bullish than others), daily charts (some days have a tendency toward *continuation*, others toward *reversal*), and even 30-minute or five-minute charts (different periods of the day have their own trading profiles). Recognizing these bearish or bullish tendencies allows traders to know the general direction in which the wind is blowing and adjust their trading plan accordingly. Moreover, compounding these small seasonal edges—going

short when the market is in a downtrend during a generally bearish month during a generally bearish weekday during a generally bearish time of day—can result in an attractive risk/reward proposition. Statistical edges can also be found when studying recurring events, such as option expiration weeks, FOMC days, macroeconomic announcements, and so forth.

Besides seasonality, the three major concepts used to find statistical edges are trend-following, momentum, and mean-reversion. Some work best with equities, others with forex or commodities. Mean-reversion strategies, in general, are best suited to swing trading timeframes on stocks, while trend-following strategies tend to work better on longer timeframes. But some traders are able to adapt these techniques to different timeframes and financial instruments.

Statistical edges in financial data series can be fickle. Some edges will weaken over time, others will strengthen.

Sometimes a strategy that has worked consistently for 10 years will suddenly stop working for no apparent reason. However, since the bulk of statistical edges are based on nothing more than psychology and human behavior, many edges remain intact over decades. The

emotions governing the stock market, that is, greed & fear, and the reactions they generate (bubble buying and panic selling) are as present today as they were 50 years ago.

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MAKE THE EFFORT COUNT

It is generally understood that it's almost impossible for an independent stock picker using fundamental analysis alone to consistently outperform the market, let alone to consistently increase his account balance during both bullish and bearish periods. So spending time dissecting financial reports is probably pointless. Most longer-term investors are probably better off buying into a mirror fund or a low-fee S&P 500 exchange traded fund. And by buying the market, they will have the satisfaction of knowing they will be consistently outperforming the vast majority of mutual funds.

Macroeconomic and sector analysis are both important for seeing the bigger picture and can at times yield some masterful trades. So staying informed and reading financial and economic publications is important. But these fields alone do not provide sufficient trades to generate the smooth upward-sloping equity curve all traders are looking for. Trade durations are often measured in years, and the drawdowns can be hard to bear by even the most patient speculator.

Technical analysis is a field that many people struggle with. It's all too easy to get caught up in the jargon and the focus on the charts, which will rarely yield actionable trades. Technical analysis is a tool, like a measuring stick, best used in conjunction with some other form of quantitative analysis.

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As we have seen, execution-edge systems are simply beyond the reach of most people, leaving quantitative statistical analysis as the one field truly worth pursuing by the average independent trader. The good news is that many trading platforms these days offer advanced development, backtesting, and modeling tools previously only available to large financial institutions. You'll need a basic understanding of mathematics and statistics plus a fair amount of research, but the rewards well outweigh the effort. Those willing to put in the time will find that just a few compelling statistical edges, systematically executed

using adequate risk management, can result in a highly effective mechanical trading system.

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FURTHER READING

Beatson, Stephen [2016]. "Identifying Short-Term Bottoms In Bull Markets," *Technical Analysis of STOCKS & COMMODITIES*, Volume 34: April.

____ [2015]. "Mean Reversion And The S&P 500," *Technical Analysis of STOCKS & COMMODITIES*, Volume 33: May.

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