LETTER FROM THE EDITOR

The MTA’s Annual Symposium will be held next month in New York City and this month we are previewing the work of two of the speakers. Ned Davis has been completing some of the most original and useful research in the field for decades and we can see several of his charts and studies included in a short article. He will provide many more charts to study in New York. In a separate article, Dr. Tucker Balch provides insights into how we can turn volatility into profits and he will be providing additional practical insights during his presentation.

In the next few months we will be presenting summaries of speaker presentations but these will capture only a small part of the information available at the Symposium. If you haven’t made plans to attend yet, there is still time. It’s actually not too early to start planning for next year either. The Symposium Committee is already preparing for next year’s Symposium and it is their year-long planning efforts that result in a successful Symposium every year.

I look forward to meeting many MTA members at the Symposium and I will be asking what you’d like to see in Technically Speaking. You can also email your thoughts on how we’re doing and what we should include in future issues to editor@mta.org.

Sincerely,

Michael Carr

Register for the 2014 Symposium
Editors note: This was originally published as a research note for clients if Ned Davis Research on February 10, 2014 and is reprinted here with permission. Ned will be expanding on his work in a presentation at the MTA Annual Symposium in April.

Our work shows that volume (particularly, demand volume) precedes price. Demand volume peaked on 5/21/2013 well before the DJIA peak on 12/31/2013. Then the NDR Volume Demand Index broke an uptrend line going back to the 2011 lows. If volume precedes price, this is a warning sign that the bull market is at risk.

While I consider the violation of the uptrend line on volume demand to be a warning sign, I do not consider it a sell signal yet for two reasons:

1) Demand is still above supply, and

2) As shown in the next chart, on a short-term basis, volume supply so overwhelmed demand last week that the market got very oversold short-term, so a bounce was likely.
**A Reader Question:** I really liked your table on declines into mid-year election year lows showing a median decline of 21% (see table below). But based upon the “overweighted, over-believed, and overvalued” indicators you featured for the last two months, it seems to me that there is the risk of another major bear market, and not just a big correction. Why do you not agree, and what could change your mind?

**Answer:** It is true that I am wary of the crowd at extremes and that is why I moved to a more neutral in strategy in December. But I also do not like to “fight the Fed.” As can be seen in the following table, the major bear markets coincided with Fed tightening, like the tops in 1968, 1973, 2000, and 2007, all were associated with a negative yield curve. These bear markets were generally more severe and lasted much...
longer than bear markets not associated with negative yield curves, which average some 21%. So we have two measures that show average risks of around 20%.

Yet, given what I believe is an ongoing debt bubble, I think there is an outside possibility that financial conditions could tighten even as the Fed stays easy, so I want to be open minded. What could put the Fed on the defensive? One factor would be inflation, and so on 1/31/2014 I suggested watching inflation pressures for commodity prices. As can be seen on the updated chart, the top clip has broken a long downtrend, but the more important CRB Raw Industrial Spot Index (bottom clip) is still well behaved.

The other thing I would watch is financial stocks. If there are systemic risks, Financials generally will sniff them out. This is why Financials nearly always turn down, on a relative basis, before stocks, in general, go into a bear market. Financials relative strength did peak on 7/22/2013. Yet, in the next chart, note that the deterioration has been minor. I have circled this indicator’s readings at the 2000 and 2007 peak areas, along with 1973 and even 1987, and the good news is that thus far Financials don’t seem to sense major problems. If this indicator goes negative, I would be much more concerned.

In conclusion, trend evidence from the Fab Five Tape Component has been neutral ever since 11/12/2013. But since we have no sell signals, I see the
evidence as neutral to mildly bullish. I am unlikely to conclude a bear market until the tape is bearish. Nevertheless, both volume demand and Financials have given warning alerts that we could have a big correction this year.

Ned Davis, Senior Investment Strategist, founded Ned Davis Research Group (NDRG), in 1980. Ned has been professionally involved in the stock market for over 40 years. While arguing that forecasting reliably (“Being Right”) is impossibly difficult, he espouses a philosophy that he feels can consistently win (“Make Money”) through a disciplined strategy of following the weight of objective indicator evidence. Because he also believes flexibility (ability to adapt) is crucial, Ned Davis Research Group also produces many sentiment indicators warning investors to be wary at crowd extremes, and helping them to be open-minded about potential trend changes. A self-proclaimed risk manager, Ned dedicates his research to avoiding major mistakes, cutting losses short, and letting profits run.

Ned is the author of Being Right or Making Money and The Triumph of Contrarian Investing. He has been the subject of numerous featured interviews in Barron’s, and has been a featured guest many times on the late Lou Rukeyser’s Wall Street Week. NDRG is widely quoted by various media and Wall Street sources.

Ned is a Phi Beta Kappa graduate of the University of North Carolina at Chapel Hill. He attended the Harvard Business School.
THE FIRST ECONOMIC FORECASTERS AND THEIR LEGACY
BY GEORGE A. SCHADE, JR., CMT


The modern field of economic forecasting traces its beginnings to earlier times, but it sprouted rapidly after 1900. Advancements in science, economic theory, and business data gathering spurred economic forecasting. For example, the term “barometer” was adopted from the science of meteorology to name some early business indicators.

At one time, over 40 companies, most located in New York City, were engaged in forecasting analytics. Mr. Friedman, the HBS Director of the Business History Initiative, focuses on seven forecasters who shaped the field - Roger W. Babson, John Moody, academicians Irving Fisher (Yale) and Charles J. Bullock (Harvard), statistician Warren M. Persons, economist Wesley C. Mitchell, and politician Herbert Hoover.

Babson and Moody owned large publishing enterprises. Bullock and Persons ran the Harvard Economic Service out of the economics department. Mitchell and Hoover worked in public agencies. All used their own methods ranging from Babson’s study of recurrent patterns and Newtonian principles, Fisher’s mathematical models, Moody’s focus on business leaders’ expectations, the Harvard Economic Service’s formulation and charting of index numbers, to Mitchell’s review of mass empirical data and historical trends.

These were highly competitive individuals who not only criticized each other but also were maligned by others. Some succeeded financially more than others. Three were shadowed by tuberculosis. Their efforts to go international were thwarted by the Great Depression and political tumult abroad. By the mid-1930s most had exited the public stage.

These prophets gave the economy “a visual form” conveying their views of business activities in creative and innovative charts, maps, and graphs, a subject Mr. Friedman discusses.

The early forecasters elevated economic forecasting to a professional field that today employs thousands worldwide, made it a part of private business and public policy, and showed that economic studies and forecasting can produce useful insights.

George A. Schade, Jr., CMT is a market historian whose work has been featured in numerous publications.
WHIPSAWS
BY THOMAS VICIAN

Editor’s note: This was originally published at TrendFollowing Trader and is reprinted here with permission. The charts in the article can be enlarged for easier viewing at the web site.

What is it?

Taking a loss is a typical definition of whipsaw. If you manage financial risk using protective stops, you’ve experienced it. People generally don’t like the feelings that arise when whipsawed in the markets. You’re losing money. What’s to like about that? People view these feelings negatively. We tend to avoid what we dislike. People tend to avoid taking losses, fail to re-enter a winning position, or entrain some combination of both in order to avoid whipsaw.

Negative whipsaw feelings intensify through the combination of the following: speed of loss, numbers of losses, and overall loss amount. A negative emotional turbo-boost occurs when you take a loss on a position before it turns tail and trends in your direction. The feeling of being right but missing the move hurts. You were right all along. If you just didn’t sell, you’d be up. Now, you’re left behind and too scared of losing again to rebuy. Does some of this feel familiar? Welcome to trading. Welcome to the emotional difficulties of trend following. Welcome to whipsaw.

Can you avoid it?

There are two ways to avoid whipsaw and the feelings associated with it. Stop trading. No entry, no exit, no whipsaw, no problem.

Second, never sell and take the loss. The portfolio destruction of that idea looms large if you trade individual stocks and/or use leverage. Your risk of ruin is assured at some point in your investing career. If you trade large liquid indices or ETFs without leverage, your risk of ruin is demonstrably lower, but your opportunity cost lost rises proportionately higher. Long term loss holding is dead money. Long hope is poor wealth builder.

Intentional failure to use stop loss risk management is a way to avoid and deny the feelings of whipsaw. For that temporary emotional palliative the investor stores up all the smaller negative feelings of whipsaw loss into one gigantic reservoir of a pain trade. Cracks in the emotional denial-dam occur when you pick the stock (law of large numbers) in your career that trends against your position for an extreme percentage move. It’s your “black swan” floating on that pain reservoir. You choose to ride a stock long from 80 to 15 because you hate the feeling of whipsaw, mask it with hope, and fail to cut the loss. “It’ll come back.” The ones that don’t are the ones that matter.
Cisco hasn’t. Now, you have a huge loss in your book and erode the time value of money by holding it. The loss can be emotionally devastating if the position and need to be "right" is large enough. Ironically, you end up getting a lot of time to experience loss if you go bust - the exact feeling you wanted to avoid. Denial of the pain associated with loss keeps the individual trapped in the trading behavior that created the massive loss in the first place. Accept whipsaw pain earlier and faster. It’s cheaper.

How do you mitigate portfolio damage if you hate the feeling of whipsaw?

If you hate the feeling of whipsaw, you have polarizing options in order to survive.

Stop trading or eventually get carried out with a toe-tag. Sometime in your career, you will pick one or more stocks that trend against your portfolio to such a huge extent that it destroys your book, devastates your ability to trade, or both. Whether it’s from idiosyncratic risk or the systematic risk of a brutal bear market, it will occur. Ironically, the psychological devastation from such enormous losses can have the positive outcome of making you
mentally incapable of trading while you learn and fix the problem that got you there in the first place. The pain is too great. You’ve lost your nerve. It’s hardwired emotional risk management and inherently self-correcting if you are willing to feel that pain. Ignore it and repeat the error. This only occurs if the trader takes personal responsibility for the error and does the work to fix it.

Second, if you decide to trade or invest without protective stops, your only real option is large diversification. Index funds, diversified funds, or ETF are broad vehicles to mitigate the loss any one (or even a few) underlying position catastrophes will have on your overall portfolio. The broader you diversify, the "safer" your investment from catastrophic loss. Understand you are still subject to occasional huge portfolio declines like the bear markets of 2001-2003 and 2008 or individual sector downdrafts if you hold narrower funds. You have full exposure to opportunity cost – if you can hold your position and take the heat. And that is a very large “if” and a separate paper in its own right. But this does address the fatal portfolio destruction one’s distaste for whipsaw crates. Yet, the opportunity cost can get quite large as can the losses you must withstand:

![Chart showing market behavior and investor decisions](chart.png)

1. Buy and hold breakout, no protective exit
2. Market strength bails out the investor failing to use a protective stop and entrains a financially deadly habit
3. The bull market bailout of bad trading behavior finally fails our investor. He experiences the huge 2001-03 bear market decline to point 3 due to his unwillingness to experience the feeling of whipsaw and cutting his loss.
4. Our investor nearly gets back to breakeven at point 4 only to ride the 2008 waterfall decline to point 5. Lucky guy. “I’m in it for the long term,” he says.
5. Indeed – thirteen years of buy and hold opportunity cost.
6. Our investor finally gets back to breakeven if he manages the herculean feat of holding through the dual fury of the 2001-03 and 2008 bear markets.

Or one might consider accepting feelings surrounding whipsaw and cutting the initial loss.
If our above investor “chickens out” (most do) and sells in a bear market, why not take the small whipsaw loss to begin with? Moreover, taking the huge loss in the midst of a swooning bear market decline pairs and operantly conditions loss cutting with massive pain, discouragement, and fear among other untenable emotions people hate feeling. Taking losses feels like the worst thing in the world. Therefore, it is. This is especially so when the majority end up selling into the final capitulation move down and a new bull market begins. “If only I would have held it.” This entrains and conditions losing investing behavior.

The further away from indexing diversification you construct your portfolio, the more accepting of whipsaw and loss cutting you must become in order to lower your risk of ruin. Keeping position sizes so small to avoid catastrophic loss tends to risk making wins financially meaningless. High performance trading requires full whipsaw acceptance. Greater acceptance of whipsaw allows more portfolio-building options and profit potential, but it gives zero guarantees. If you can’t stand the feeling of whipsaw and cutting losers out of your portfolio, broad diversification lowers your risk of ruin.

**Whipsaw: Profit from Acceptance**

Previously, I defined whipsaw in terms of loss and the associated feelings. I explained how to avoid whipsaw loss, the costs associated, and one effective risk management technique. Now let’s turn the table. What if you accept some level of whipsaw as emotionally "O.K." and intelligent as a risk management tool? How does this help your trading? How can it increase profits? What are some of the pitfalls you still must contend and address?

**How does accepting whipsaw help your trading?**

The only way to have a chance at trading or investing success is to ride winners, cut losers, and manage risk with consistent autonomic intention. Cutting losses helps prevent massive portfolio declines. Avoiding that helps keep you mentally clear to ride winners, cut losers, and manage risk continually in order to survive and thrive long term.

Cutting losses short supports the time value of money. Riding a loser long term burns capital and time. Time is scarce. Accepting whipsaw and cutting losses frees capital and allows the trader to find a profitable investment opportunity quicker. A small loss in a short time is diametrically opposed to huge loss over a long time. You never know which position will end up being the massive loser. Stop large losses early in their tracks.

Accepting whipsaw makes it automatic to rebuy stopped out positions that reconfirm their original trend. You avoid leaving yourself behind on large trends. Sometimes it takes more than a few attempts to catch and ride a big wave. I offer an example of this shortly.

**How can accepting whipsaw increase profits?**
Accepting whipsaw allows a trader to tighten stops and achieve larger risk/reward ratios. An exit stop that is one point from cost basis entry is half the size of a two point stop. If the stock rallies 10 points, your risk reward for the two point stop is five to one. But it’s ten to one for the one point stop. If you keep position size constant, say 25 basis points of cash equity, you make twice as much with the tighter stop if it wins.

As you trade with tighter stops, your win/loss ratio will decrease as you give less wiggle room for price to naturally vacillate. Despite this, you can still come out ahead if you’re willing to accept whipsaw and keep pulling the trigger on a trend following approach. Risk a dollar on a position and lose six straight times. The seventh time you ride the stock for fifteen points for a fifteen to one winner. You net seven to one on your trade series (15-6) and have a win ratio of only 14.3%. The big winner with the large risk/reward ratio pays for all the losers and generates the bulk of profits. This is common for trend following systems. Some trend following systems hunt for large, long term breakouts with tight stops to catch big, persistently trending moves. This can only occur if the portfolio manager accepts whipsaw. Here is a real world example from my 2013 portfolio:
What are some of the whipsaw issues which you must address?

In order to have a profitable system and maintain emotional balance when executing it, there are three whipsaw issues to address:

- The number of whipsaws
- The speed of whipsaws
- The amount of whipsaw loss

Numbers of whipsaws

Trade with stops that are too tight, and you run the risk of system degradation as your loss percentage reaches an extreme. You risk your big winner(s) being unable to pay for all the losers. High numbers of whipsaws grind emotionally. All traders have a personal whipsaw resilience set-point where they can cut losses, stick to their system, and keep pulling the trigger on new entries. Resilience between individuals varies like fingerprints. At some personal threshold, too many whipsaws degrades a trader’s ability to execute his system. He reaches an emotional uncle point where he jumps his system, stops pulling the trigger, gives up on a profitable system, and/or avoids cutting his losses to stop the feeling of whipsaw. When trading a profitable trend following system, it's typically darkest before the dawn. If our trader jumps his system, how does he catch the big trending winners that make up for the string of losses? He doesn’t. He’s lost his nerve. High risk reward ratios are tough to achieve for a reason.

While it is possible to recalibrate your whipsaw resilience set point. That’s beyond the scope of this paper.

Speed of whipsaws

Speed of whipsaw acceptance is mostly dependent on your trading time constant. Day traders have a system with a much shorter time constant than a mutual fund manager. The former cuts losses at an astronomically higher rate than the latter. But each has their own whipsaw resilience set-point. That set-point is likely one key underlying factor on their choice of time constant. A rare breed is the long term trend follower who trades with tight entry stops to catch and ride big trends for enormous risk-reward ratios. Very few can do it.

Amount of whipsaw loss

For the benefit of emotionally accepting whipsaw, cutting losses, and sticking to a trend following system, traders can use tighter stops that offer much larger risk-reward ratios - sometimes dramatically so – when big trending moves unfold. But traders must address key systemic and emotional factors around whipsaw to find their own optimal blend for the trend following system and time constant they trade. This is tough stuff that requires honesty, introspection, and commitment to trade profitably long term. Shortcuts lose.
Bet too heavy and performance degrades. At a large enough position size, you are assured ruin mathematically even if you can theoretically keep pulling the trigger. On the flip side, bet too small to minimize losses and wins become meaningless. Congratulations, you picked a stock that tripled in six months but owned ten shares. Welcome to the delicate balance of risk and reward.

Scared money loses. Betting less than the guaranteed risk of ruin but still too heavy for the emotional resilience of the trader causes growing feelings of insecurity. When insecurity reaches a critical mass, the trader stops pulling the trigger, abandons his system and/or stops cutting losses hoping his underwater position will win. If he stops cutting losses, his account gets taken out on a financial stretcher. He's over-betting for his emotional state and ability to execute.

**To Conclude**

If you want a chance of sustained success trading financial markets and you hate whipsaw, stop trading and use broadly diversified, long term vehicles for your buy-and-permanently-hold investments. Otherwise, embrace whipsaw as a fact of trading life and cut losses. Know the risk management trade-offs associated with rejecting or accepting whipsaw. Understand yourself emotionally. Work within your personal psychological tolerance. Research ways to expand your tolerance. Confront and dissolve uncomfortable, dissonant feelings surrounding loss cutting and rebuying previously stopped positions. Doing so may create meaningful change in your trading system profitability and smooth your emotional investment process.

Tom Vician, CMT, has been a financial professional since 1993 when he began his financial career with Merrill Lynch. Tom started his statement-auditable trading track record in 1994 when he apprenticed with one of the world’s top traders. From 2006 to 2010, Tom managed a $20 million book of accredited investors for an emerging hedge fund/CPO. Currently, he trades professionally and manages a portfolio of private assets. Tom is quoted in the revised edition of the book “Trend Following” by Michael Covel, has been quoted in Reuters, and has been published in the Market Technicians Association newsletter (Nov 2013). Tom has the following licenses: Series 3, 63, 65 and a clean U-4. He is a Chartered Market Technician Level 3 candidate. Additional information about Tom’s methods can be found at [http://www.trendfollowingtrader.com](http://www.trendfollowingtrader.com)
A sample of a growing list of fundamental and technical courses is shown below. The courses are associated with global destinations and dates, both for open and private client formats. They are produced by various knowledge vendors throughout the world. Details can be provided by contacting NYIF.COM, or John Palicka (palicka@pipeline.com).

**FUSION ANALYSIS**
This is a professional approach that blends fundamental, technical, behavioral and quant strategies.

**EQUITY PORTFOLIO MANAGER**
Serious managers will utilize this course to analyze leading Wall Street valuation models and investment strategies for equities using fundamental, behavioral/technical and quant approaches, and then study how these are modified by the best performing equity portfolio managers to produce risk-adjusted excess returns.

**INVESTMENT FUND SELECTION**
This is a must-attend course for all professionals involved in the selection and management of third-party investment managers.

**TECHNICAL ANALYSIS CMT 1**
A must-attend course for investment professionals wishing to gain the CMT Level I professional qualification in Technical Analysis from the Market Technicians Association (MTA).

**INTRODUCTION TO STEALTH TRADING USING FUSION, ALGORITHMS, AND DERIVATIVES FOR PROFESSIONALS**
Today, portfolio managers increasingly must use stealth trading in order to disguise their intentions and thus benefit from best execution.

**ADVANCED CAPITAL MARKETS ANALYSIS**
Spot, forwards, futures, swaps, options, and statistical issues are discussed in dynamic capital market strategies.

**STRATEGIC GOLD INVESTING**
Gold has been one of the very few assets to have created wealth in the past several years. Gold offers investment opportunities for investors, traders, and financial engineers.

**GLOBAL SMALL CAP INVESTING**
Global small cap stocks offer investors the ability to participate in the world’s future big winners.

**PORTABLE WEALTH INVESTING**
Portable Wealth (PW) management offers investment opportunities for wealthy investors and their advisors. PW can generate attractive risk-adjusted excess returns to traditional and alternative investments.

Instructor John Palicka CFA CMT is a top-ranked portfolio manager of Global Emerging Growth Capital (WWW.GLGEGC.COM) with over 30 years experience of managing $ billions. He has doubled client money, on average, every 4 1/2 years since 1980*.

His high course ratings from major investment firms reflect clear interpretations and practical applications of complex topics; knowledge applied to examples and cases found in the current worldwide and GCC marketplace; his experience with specific situations actually encountered in his career and consulting contracts that parallel the learning topics. John has an MBA from Columbia University and also teaches these courses for leading training institutions, including The New York Institute of Finance (WWW.NYIF.COM).

*Past performance is no guarantee of future results.*
INTERVIEW WITH R. BERNARD CLAY
BY AMBER HESTLA-BARNHART

How would you describe your job?

I am the owner of a Registered Investment Advisory Firm. As the Advisor I work with clients on income planning. The average age of my clients is around 55. I work with managed money and fixed products to help them achieve realistic returns so that they do not outlive their Income. I use technical analysis to provide alpha and trend analysis to determine when to go on defense with any moneys they have that would be subject to market risk.

What led you to look at the particular markets you specialize in?

I work with baby boomers, because they are at a time in their life when they are nearing retirement. They have spent decades saving and investing and now they have a large pile of money. Now they need advice on how to keep that pile of money and create a stream of income that will grow and provide guaranteed income.

Do you look at any fundamental or economic inputs to develop your opinions?

I think it would be foolish to not to look at any fundamental or economic reports. That being said I think fundamentals and economic information can be flawed. Why? Because of vested interests and conflicts of interest. It’s hard to believe that people will cook the books, but they do. My final decision or opinion will be based on the forces of supply and demand. I know of no other way to get a clearer picture of what a company or stock is doing, than to look at a good old fashioned chart.

What advice would you have for someone starting in the business today?

Start with the simplest form of technical analysis and learn it well. My recommendation would be to start with point and figure charting. Once you have a good understanding and application of point & figure, then and only then, would I learn candlesticks and some very basic oscillators.

As far as succeeding in this business today, I would contend that the best chartist or technicians are probably not recognized or are hardly compensated for their technical analysis, but more for their marketing skills. I don’t believe that there is much correlation between being a craftsman or expert in technical analysis and being financially successful in this business.

What is the most interesting piece of work you’ve seen in technical analysis recently?

I would say that I am very impressed with Bullish Percentages and trend analysis using certain moving averages.
What research area do you think offers the greatest potential in technical analysis at this time?

I will give you my 3 favorites; Mobo Bands (Bollinger Bands), Bullish Percent Indexes and Crossing Moving Averages.

R. Bernard Clay has been in the financial services industry since 1978 when he started with Prudential. His unending curiosity and desire to best serve his clients led him finally to technical analysis and to Dorsey Wright & Associates, and ultimately, to form his own company, Clay Capital Management, LLC which operates your401kadvice.com. He has been studying technical analysis since the 1990's and is a CMT level 1 candidate. He is currently NSSA (National Social security Advisor) certified and works with retirees seeking to solidify their retirement through the proper use of Social Security, pensions, fixed income and managed money investments. He is also a professional speaker on topics such as Social Security Maximization and the Stock Market.
Low volatility stocks and ETFs seem to perform better than they ought to. In recent years they have provided similar returns to the overall market, but with lower risk. This phenomenon is referred to as “the low volatility anomaly.” We take a statistical look at the question to see if we can find clues to explain it.

What is the Low Volatility Anomaly?

Everybody knows that higher rewards can only come from higher risk, right? That principle is enshrined in one of the most respected models of stock pricing: The Capital Assets Pricing Model (CAPM). This model says, essentially, that in an up market, the excess return of a portfolio is proportional to the Beta of the portfolio to the market. Higher Beta equates to higher risk, or volatility, in the price or value of a portfolio or stock.

In general we should see higher returns as we dial up risk and lower returns as we dial it down. The low volatility anomaly arises from the fact that this principle is often violated in the market. Low volatility stocks often provide more significant return than they should according to the CAPM.

Performance of two low volatility ETFs (USMV, yellow and SPLV, blue) versus the market (red). Note that total returns are similar for all three, even though USMV and SPLV are much less volatile.

The chart of USMV and SPLV illustrates “the anomaly” for two low volatility ETFs. If you look carefully at the chart you’ll see that all three ETFs, including SPY, provide about the same total return (since SPLV’s inception in mid-2011), but that SPLV and USMV are less volatile. This implies that their risk adjusted return is superior.

In an earlier post I analyzed SPLV versus the market (SPY) and showed how SPLV indeed provided stronger risk-adjusted returns.
In this article we want to take a closer look to see if we can explain what is going on.

**Beta and Volatility**

Beta is a measure of how an equity responds to a market up or down move. Volatility is a measure of how much the price of an equity changes each day on average. A Beta of 1.0 implies that the equity will move up just as much as the market. Beta lower than 1.0 implies that the equity will not move as much. In general lower Beta stocks are less volatile as well.

We can measure Beta by computing the daily returns for an equity and for the market, plot the result and fit a line to the resulting scatter plot. When we do this for SPLV (shown in the nearby chart), we find that it’s Beta versus the market is 0.68.

This means that for any particular day, we expect SPLV to move about 68% as much as the market.

Now, what if Beta for an equity isn’t constant? We know actually that it isn’t. The Beta value for a particular stock or ETF evolves over time. In fact Betas are recalculated for stocks versus the market on a daily basis.

I’ve lately wondered about a specific way that Beta might change: What if the Beta for an equity was different on market up days than on down days?

**Asymmetric Beta**

A comparison of daily returns for the market (SPY) versus a low volatility ETF (SPLV). The slope of the fitted line is Beta for SPLV.

A comparison of daily returns for the market (SPY) versus a low volatility ETF (SPLV). The slope of the fitted line is Beta for SPLV.
We fit a line to the data for market down days only. Beta for SPLV on down days is 0.66.

It turns out that for SPLV Beta does differ according to whether the market is up or down (see charts at right). On up days Beta is 0.683; on down days Beta is 0.666. So Beta is slightly lower on down days. I refer to this difference as Asymmetric Beta.

Why does this matter? How does that affect performance?

This difference in Beta provides a very interesting effect. It enables SPLV to exhibit a subtle “ratchet” behavior with regard to the market. For instance, when the market goes down 1%, SPLV only loses .67%, but when the market does up 1%, SPLV gains .68%. So SPLV’s Beta responds asymmetrically to the market in just the right way.

Calculation of Beta for SPLV on market up days.

Why does this occur? Theory 1: Preference for lotteries

We don’t know for sure what causes the low volatility anomaly, but here are a few theories. One possibility can be found in Standard and Poor’s white paper. They suggest:

Perhaps the simplest and most intuitive comes from behavioral finance, specifically from the cognitive bias that behavioral economists call the “preference for lotteries.” Their argument is that no rational person would ever buy a lottery ticket, since the expected return of such a purchase is negative. But we know that billions of lottery tickets are sold all over the world every day. Why do so many people behave in a way that classical economics can only regard as completely irrational? The behavioral argument is that some people are willing to risk a known amount of money in exchange for the possibility, however slim, of a gigantic payoff.

The stock market’s lottery tickets are the stocks of highly volatile, potentially untested companies. Ultimately, they may not amount to much, but one of them could be the next Apple. Some investors are willing to pay up for the chance of that sort of large reward. This tendency, which amounts to buying volatility for volatility’s sake, drives the price of lottery-like stocks above their fair value. And this means that a portfolio that systematically excludes the most volatile stocks—
exactly what our low volatility indices do—is likely to outperform over time, globally.

Essentially, S&P is suggesting that more volatile stocks may be overvalued in general, and therefore susceptible to significant drawdowns (consider Twitter’s recent stock market performance for example). Conversely, low volatility stocks are more likely to be priced correctly.

**Why does this occur? Theory 2: Flight to safety**

---

![Four low volatility mascot.](image)

Another possibility, and this is my own theory, is that “safe” and “defensive” stocks are often low volatility as well. When the market drops, folks are likely to rotate into these stocks, or they are at least less likely to sell them. So in a downturn, the drop is cushioned by this factor.

Consider for example, a current list of stocks that our volatility forecaster at Lucena predicts will have the lowest volatility in the next month (as of January 2014):

<table>
<thead>
<tr>
<th>MCD</th>
<th>CTAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTU</td>
<td>MMM</td>
</tr>
<tr>
<td>PAYX</td>
<td>JNJ</td>
</tr>
<tr>
<td>LO</td>
<td>SYK</td>
</tr>
<tr>
<td>KO</td>
<td>USB</td>
</tr>
</tbody>
</table>

Some of these symbols are among the who’s who of blue chip defensive stocks. McDonald’s for instance — you’ve always got to eat.

**Exploiting Low Volatility**

Back tested performance of Lucena’s CalmSea strategy (green line) applied to the S&P 500 stock universe. The purple line is the S&P 500 benchmark.
At Lucena Research we’ve been looking for opportunities to take advantage of this behavior. One example is our CalmSea strategy.

The CalmSea algorithm predicts future volatility for a stock universe, then invests in the lowest forecast volatility stocks. We’ve tested the approach for the DOW 30, the S&P 500 (shown in the chart above) and the NASDAQ 100.

In all cases, CalmSea provides stronger risk adjusted returns compared to the relevant benchmark. In most cases it also provides the same or better total return as well.

**Disclosure:** Tucker Balch manages a fund that held a long position in SPLV when this article was published.

*Tucker is a former USAF F-15 pilot, and current professor of Interactive Computing at the Georgia Institute of Technology. Dr. Balch’s research centers on Machine Learning. He teaches courses in Artificial Intelligence and Finance. Balch has published over 120 research publications related to Robotics and Machine Learning. His work has been covered by CNN and by New York Times. His graduated students work at Goldman Sachs, Morgan Stanley, Citadel, AQR, and Yahoo! Finance. He can be reached at tucker@lucenaresearch.com

---

**2014 BOARD NOMINATIONS**

For the fiscal year commencing July 1, 2014, all four (4) Officer positions are up for consideration for a 2-year term (President, Vice-President, Secretary and Treasurer), and two (2) At-large Board positions are up for consideration for a 3-year term.

Members, Honorary Members and Emeritus Members in good standing are invited to submit recommendations for consideration to nominations@mta.org. Individuals may nominate themselves or others. For complete details on the Nominating Process, please visit the appropriate sections of the MTA Constitution and MTA By-Laws.
2014 SYMPOSIUM – AGENDA ANNOUNCED

Day 1 – April 3, 2014

• 7:00 AM – Registration and Breakfast
• 8:00 AM – Topic to be Announced with Steve Leuthold, CMT
• 9:10 AM – Institutional Money Management Panel: “Fusion – Technical Analysis Drives Strategy for These Managers in Multiple Analysis Frameworks” with Charles Trafton, CMT and Duke Jones, CMT
• 10:40 AM – Networking Break
• 11:10 AM – Interactive Session #1: “Machine Learning, Artificial Intelligence and Trading Systems Design” with Tucker Balch, Ph.D
• 11:55 AM – Interactive Session #2: “Information Theory” with Dr. Ben Hunt
• 12:35 PM – Lunch Session and Professional Networking Opportunity
• 1:05 PM – Working Lunch and Panel Discussion: “25th Anniversary of 1st CMT” with David Keller, CMT, Barry Sine, CFA, CMT, David Krell, CMT, and Ralph Acampora, CMT
• 2:20 PM – Interactive Session #3: “Investing with the Trend” with Greg Morris
• 3:10 PM – Closing Keynote Presentation with Ned Davis and Jeff DeGraaf, CFA, CMT

Day 2 – April 4, 2014

• 7:00 AM – Registration and Breakfast
• 8:00 AM – Strategist Panel Discussion with Tony Dwyer and Jurrien Timmer, CMT
• 10:20 AM – Networking Break
• 10:50 AM – Interactive Session #5: Sponsor Track
• 11:30 AM – Working Lunch and Presentations: 4 Breakthroughs in Technical Analysis with Mathew Verdouw, CMT and Carson Dahlberg, CMT
• 1:00 PM – Keynote Presentation: East Meets West – “Real” New York DOW Analysis from the Japanese Perspective with Hiroshi Okamoto
• 1:45 PM – Interactive Session #5: “NDR 360 Model – Linking Quant Technical and Fundamental Data” with Ned Davis Research Team
• 2:25 PM – Networking Break
• 2:45 PM – What have we learned from the 2007 Credit crisis? with Larry McDonald
• 4:00 PM – Keynote Presentation: “Intermarket Analysis” with John Murphy, CMT
• 5:00 PM – Professional Networking and Cocktail Reception
• 5:30 PM – Women in Technical Analysis Meeting – Register Here
AUTHOR GUIDELINES

The Market Technicians Association serves a global community and the organization’s publications strive for articles that can be easily understood by readers around the world. To meet that objective, all submissions to Technically Speaking should be in English and minimize the use of vernacular phrases and references. This is necessary to improve the readability for international members who may not understand phrases commonly used in one region but unknown in most of the world.

In Technically Speaking, we want to publish articles that use simple language whenever possible. Specific terms associated with financial analysis in general and technical analysis specifically should be defined unless they are found in the MTA’s Body of Knowledge. The editors may have to make changes to any work that is published for clarity and consistency.

Submissions should not use text boxes or advanced text formatting, as they make it more difficult for our staff to implement into our newsletter layout.

Please send any material you would to have considered for publication before the 20th of the month. We will work to include anything received by that date in the next issue.