

How to beat the S&P 500... with the S&P 500

The secret to using Trend Tracking to increase
your investment profits and limit your losses



Ulli G. Niemann

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*“There are decades where nothing happens;
and there are weeks where decades happen”*

–Vladimir Lenin

Introduction

Yes, you read the title of the e-book correctly; there has been no typo. As an investment advisor, who has been advocating the investment approach of Trend Tracking since the mid-80s, I have finalized a research project covering the past 13 years. It shows that, by following major trends in the market place, and the implementation of trailing sell stops, you can actually improve your investment results. Equally as important, you can control the downside risk so that you don't lose your prior profits along with a good chunk of your principal.

To be clear, this research project is not designed to go back in history and examine every possible time period and the effect of the use of Trend Tracking; that would be far beyond the scope of this report. I have merely attempted to stay in this century and examine its 2 major bear markets to show that there are alternatives to the conventional investment theme of buying and holding forever.

A Practical Alternative to Buy & Hold

Investors have a very short memory and Wall Street is certainly not the entity to remind them of what can happen when bull markets turn into bear markets and how that reversal can and will affect an investment portfolio. No, the motto of the army of Wall Street's salesmen is to buy and hold—no matter what the circumstances.

My intention here is not to belittle the buy-and-hold community but to point out, backed by hard facts, that there are practical alternatives worth considering that may work better with your emotional makeup. After all, anyone can enjoy an uninterrupted bull market, but how do you react to major trend reversals or bear markets such as 2000 and 2008?

Can You Be Happy During a Bear Market?

Having spoken with and emailed thousands of investors as part of my advisory business, I can assure you that the percentage of those who can accept bear markets as a necessary evil of investing is not even measurable. Most are devastated by the events as portfolios are decimated and lives are changed forever.

If you believe that the 2 bear markets of this century were outliers and won't be repeated, then you should stick to your current investment theme. However, if you think, as I do, that the bubble blowing policies of the Fed will continue and result in more turmoil in the financial markets, then this e-book is for you. It offers an easy to implement alternative investment strategy that might just solve some of the issues you have been concerned with, such as "should I invest now," or "should I sell so that I can lock in my profits and won't get hurt too bad once the rally comes to an end."

A Way to Make Intelligent Investment Choices and Respect Your Risk Tolerance

While no one has the perfect answer, using the approach of Trend Tracking will allow you to make better, data-based investment decisions and determine your risk based on your personal risk tolerance. For a quick start, you can always head over to my blog www.TheETFBully.com and watch the posted two videos.

For the sake of disclosure, I have to advise you that we currently have holdings in all ETFs mentioned in this report and that these test results do not guarantee a similar future outcome. The methodology mentioned also should not be construed as personal investment advice.

With that in mind, let's dive right in and first look at terminology and methodology used.

What Is Trend Tracking?

Trend Tracking is a form of investing, predominantly in ETFs/mutual funds. It exposes a portfolio to the markets only when the major trend is up and attempts to get us out of the markets before a major trend reversal takes place. The idea is to sidestep the brunt of devastating bear markets that have repeatedly annihilated investors' portfolios.

How do we identify a major trend? In my advisor practice, I use proprietary Trend Tracking Indexes (TTIs) that I chart and publish every Thursday. For more details, please view my blog at www.TheETFBully.com.

You Can Have More Confidence in When you Buy and When You Sell

For this research project, I used the 39-week SMA (Simple Moving Average). As a general rule, when an ETF crosses above that line, we are in bullish territory and in "buy" mode. Conversely, once it crosses below that line, we have entered bear market territory and will move to the safety of a money market fund.

During the most recent bear market in 2008, a "Sell" signal for all equity funds was generated effective 6/23/08 at which time we sold all positions and moved into cash watching the subsequent market disaster develop from the safety of the sidelines.

We are living in extremely uncertain times and, to my way of thinking, a methodology that can help you reduce the downside risk is an absolute must as Fed policies have created uncertainties the likes of which we have never seen before.

If the bear markets of 2000 and 2008 did a number on your portfolio and you still subscribe to simply buying and holding your investments without the use of an exit strategy, you are not thinking clearly. Bubbles are forming in every investment arena, and it's just a matter of time before they burst. So, be prepared!

Trend Tracking does not attempt to outperform the benchmark S&P 500 index on a monthly or even quarterly basis. It's simply not possible as we attempt to enter the market only once a major trend has been established, and we exit once our [trailing sell stops](#) (free e-book) have been triggered.

Whipsaws Happen

Occasionally, we experience a whipsaw signal, which means the major trend was merely interrupted, and we need to find a new entry point. While that is inconvenient, it's also a cheap price to pay when looking at the big picture as the study shows.

However, longer term, when you include a bull and a bear market, that's where trend tracking truly shines and comes out ahead. It tends to avoid the *major* market drops, due to its sell stop trigger points being executed when necessary and historically before major portfolio damage occurs.

Outperforming the S & P by Investing in the S & P

As this study shows, you can actually outperform buying and holding the S&P 500 *with the S&P 500* when you use my Trend Tracking rules. A truly astounding result!

Methodology

The following study covers a recent period of 13 years starting on 1/1/2000 and ending on 3/28/2013.

For the purpose of this research project, we have used the ETF equivalent (SPY) of the S&P 500, which is heavily traded and best represents the exact product an investor would or could use. For ease of calculations, and to account for dividends, we have used the dividend adjusted closing prices, which are widely available. At the same time, we have not included the customary ETF trading fee, which is currently \$8.95 per trade.

There are two ways to ways to get involved with the Trend Tracking methodology, both have been tested, and the choice for an investor strictly depends on his risk tolerance or preference.

1. TTI Timing Index

A "Buy" signal for SPY is generated once the current price of SPY has crossed its 39-week SMA and has closed above it for 3 consecutive days. Once that has happened, our purchase will be executed on the 4th day at the closing price.

A "Sell" signal to close out the position is triggered once the current price closes below its 39-week SMA for 3 consecutive days. Once that happens, our SELL signal will be executed on the next (4th) day at the closing price.

Using this approach will expose you to more volatility in the short term but, as you will see, it also has its rewards in the long term.

2. TTI plus SL Index (Sell Stop)

With this choice, we use the same entry point, but the exit point will be different in that we want to have more control over our downside risk via the use of trailing sell stops.

Once we have established a new position, we track the "high point" SPY has made since the purchase (based on the closing price only). That high point becomes the basis for tracking our 7.5% trailing sell stop. In other words, once the current price of SPY comes off its high by 7.5% on a closing basis, it will be sold the next day at the close.

At this time, only two things can happen (besides some sideways meandering):

- A. SPY drops further and eventually crosses its long term trend line to the downside confirming the return to bear market territory. That means, we simply got a head start and limited our downside risk considerably.
- B. The pullback was only temporary, and the markets resume their bullish trend forcing us to find a new entry point. That means we received a whip-saw signal. There are now two possible ways for us to establish a new position in SPY, and the choice depends on where the 39-week SMA was at the time we got stopped out:
 - a. If the price of SPY was below its 39-week SMA at the time we got stopped out, the new Buy point would be a crossing of the SMA to the upside as described in #1 above.
 - b. If the price of SPY was above its 39-week SMA at the time we got stopped out, the new Buy point would occur once the old basis for figuring out the sell stop has been taken out. Once that happens, we buy the following day at the close.

I want to make sure you understand that these trading rules are not part of an optimized system. I believe that any investment methodology has to prove itself in any environment where at times you get whipsawed more than you like but, in the long run, you come out ahead with higher returns and/or minimized losses.

In other words, an investment approach should be like a comfortable fitting suit; not too loose and not too tight. So, if you gain or drop a couple of pounds, it should not matter.

All charts contain the following legend:

- 1. SPY BH – Buy and Hold result for SPY
- 2. TTI Timing Index – Results of investing via trend line crossings
- 3. TTI + SL Index – Results of using trend line crossings with trailing 7.5% Sell Stops

A hypothetical \$100,000 portfolio has been used and invested over the period from 1/1/2000 to 3/28/2013.

It is also important for you to know that while we are out of the market and in cash, other investment opportunities may present themselves. During the early part of this century, money market accounts paid a decent rate of interest and bond ETFs were rallying as equities dropped. For this test project, we have assumed a zero percent return while in cash.

Since this report contains a lot of charts and tables, I suggest you enlarge the document for better viewing of the many details shown. A large monitor will definitely help.

Without further ado, let's look at the summary charts first:

SPY Summary Highlights

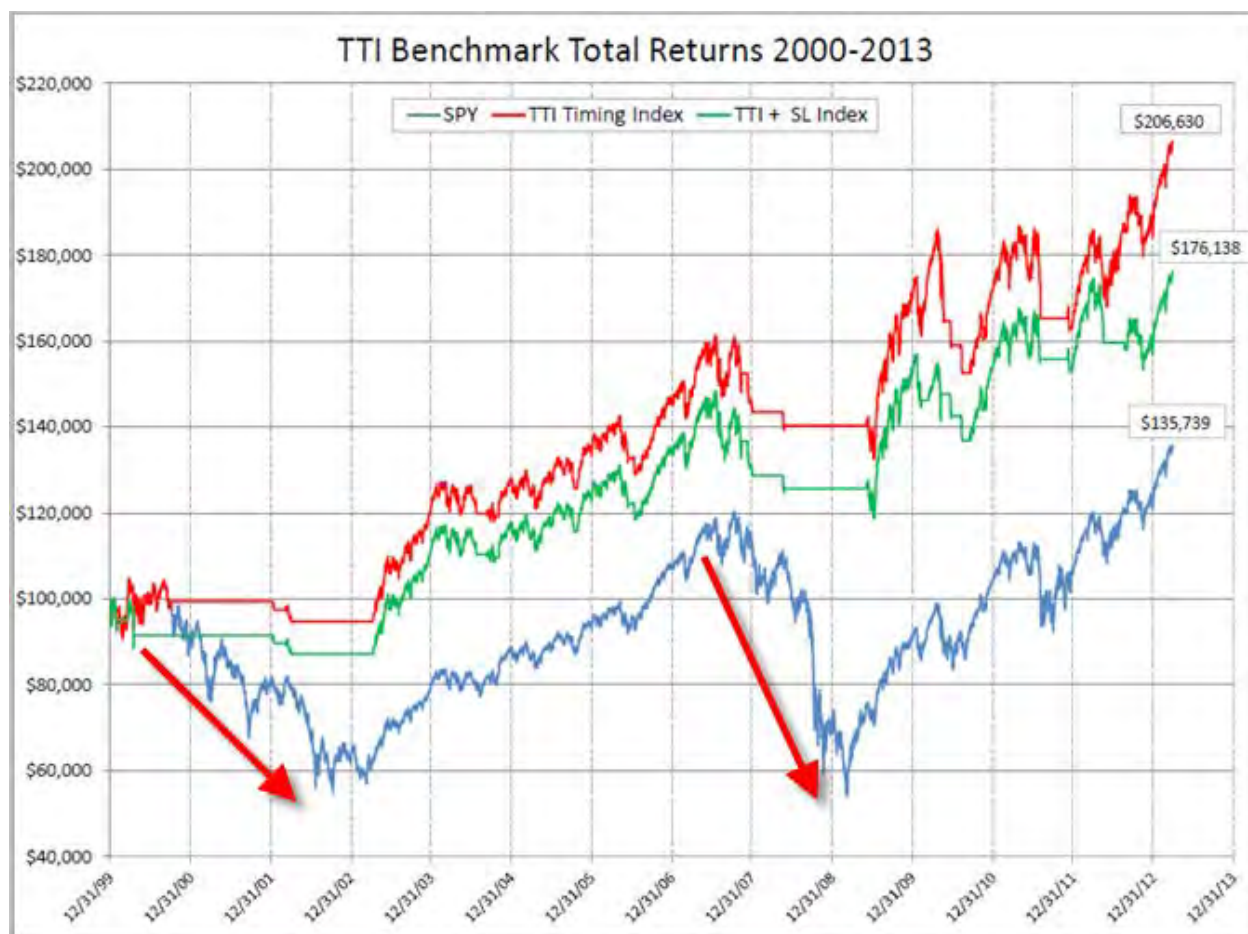


Chart 1

What this chart makes abundantly clear is that being invested during bear markets is to be avoided at all costs. To wit, I know of no methodology that will avoid them altogether, but you can do the next best thing, which is to minimize their effect as we have done via the two Trend Tracking approaches.

Take a look at the effect of the bear market from 2000 to 2002 (left red arrow) and notice how SPY (blue line) slowly deteriorated while, when used with Trend Tracking, where we've spent a good time of that period on the sidelines and in cash, the portfolio was not compromised nearly as much. In fact, during this 2000 to 2002 period, *the SPY B&H portfolio dropped some 40%, while the worst case scenario using trend tracking showed about a 12% loss.*

Getting Back to Even Doesn't Have to Take Forever

If investors would understand math a little better, they would realize that it's very difficult and time consuming to make up major losses. If you lost 40% and your \$100,000 portfolio dropped to \$60,000, you now have to make a return on the \$60,000 of almost 67% just to break even!

Start Getting Ahead Again Sooner

Looking at Chart 1 again, this breakeven level for the buy-and-hold approach was finally reached towards the end of 2006. In other words, in this case, it took about 4 years to recover its losses and reach the breakeven point, while both Trend Tracking approaches had powered ahead reaching the \$130,000 and \$140,000 respective portfolio levels.

What that translates to is that the lower your losses during market setbacks, the quicker you will recover and put your portfolio back on the growth track. The Trend Tracking lines (red and green) make that abundantly clear.

Things got even worse during the 2008 market meltdown. As you can see in Chart 1, the SPY B&H portfolio lost about 50% (red arrow on right) by dropping from \$120,000 in late 2007 to \$60,000 in early 2009. Compare this to the trend tracking portfolios (red and green lines), which came off their highs as well but managed to avoid the brunt of the bear market.

That means once the recovery started, and the bullish trend resumed, the small losses were made up much more quickly and late in 2009, the breakeven point was reached. With the B&H scenario, again, it took some 4 years to get to that level; it was finally reached late in 2012.

Balancing Risk and Reward

Looking at the big picture, you will notice in Chart 1 that the TTI Timing Index outperformed the TTI + SL Index by a considerable margin over the 13 years tested. You might jump to the conclusion that it would be a better investment choice. It seems so on the surface and if you are a more aggressive investor and can handle more DrawDown, you would be right. I'll examine that issue later on.

Right now, let's look at Chart 2:

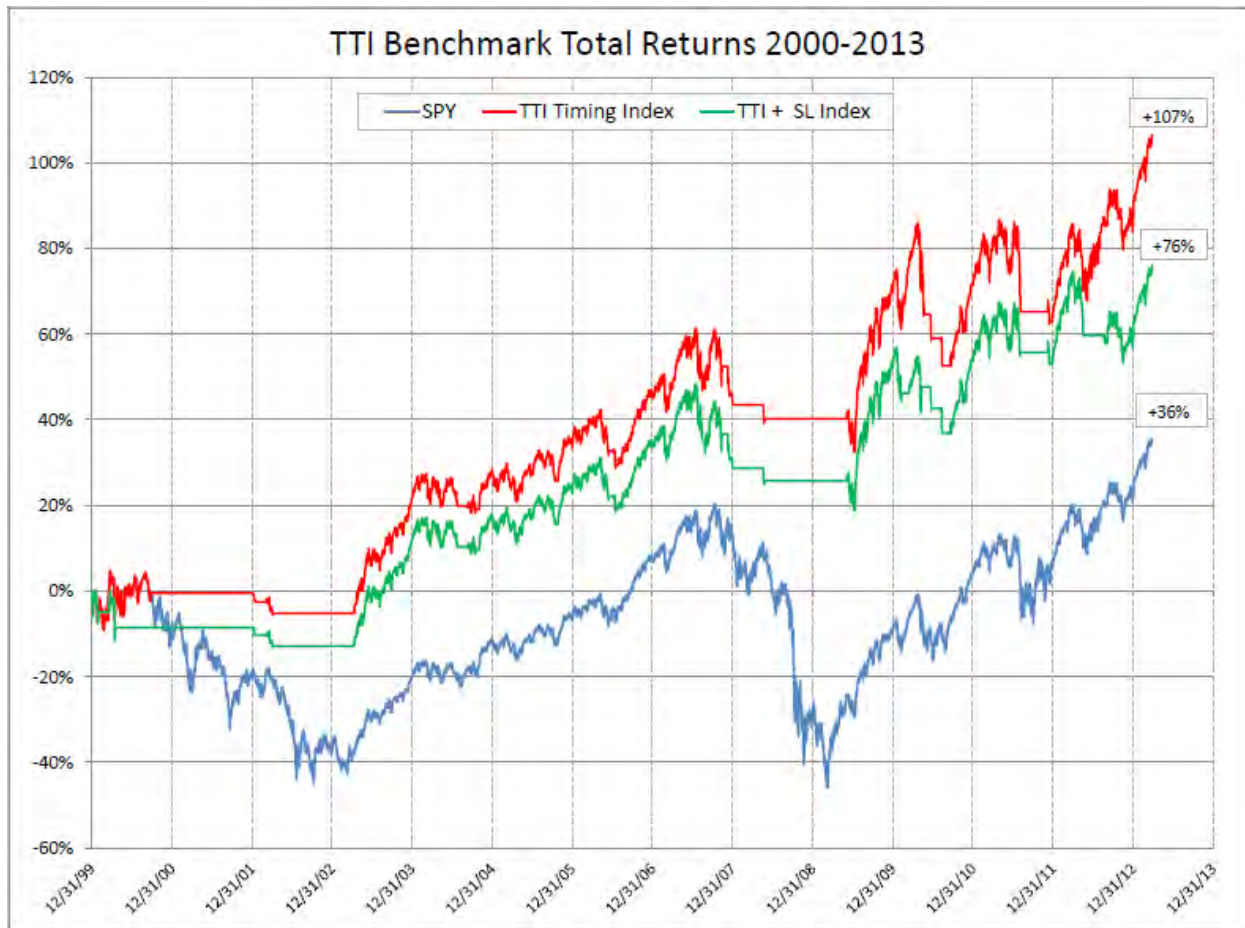


Chart 2

This merely repeats the display of Chart 1 and shows the portfolio returns as a percentage.

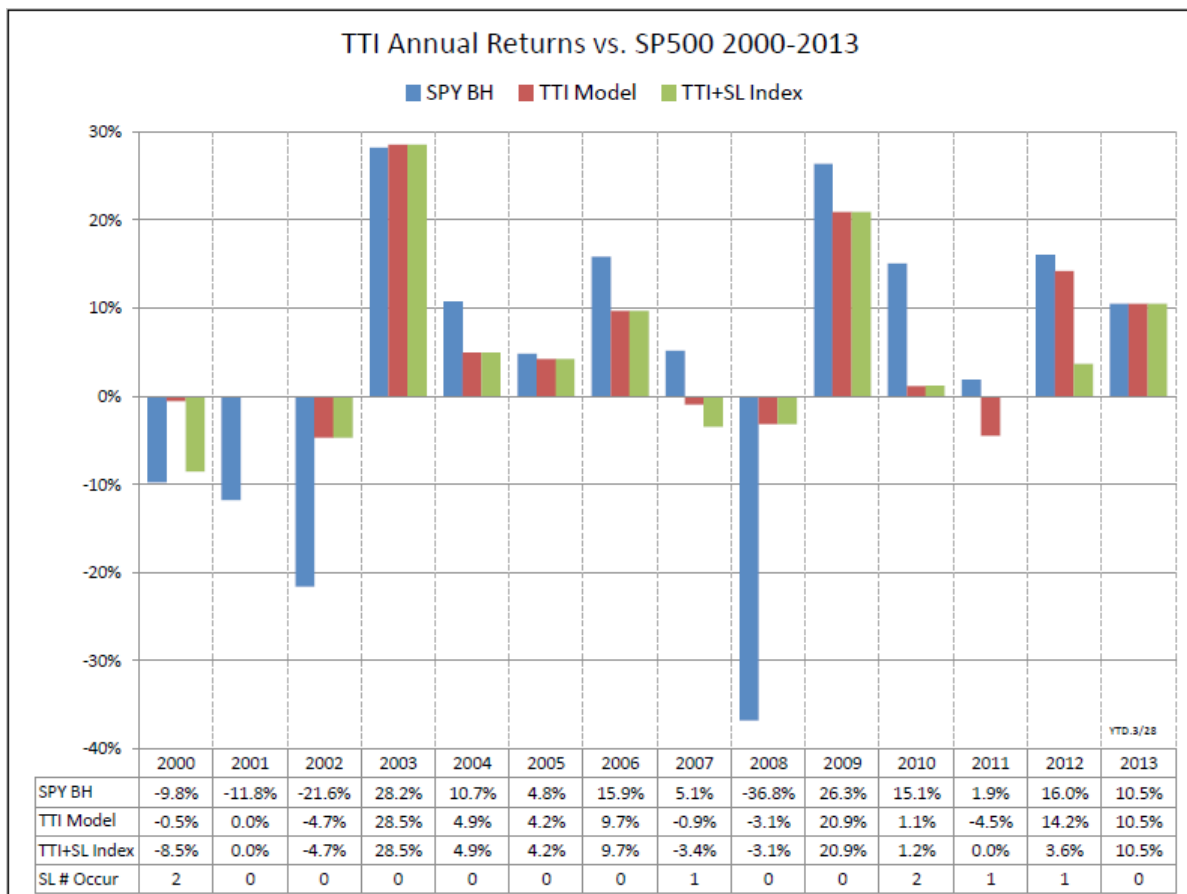


Chart 3

Chart 3 breaks down the test period by years and yearly returns as well as the number of times any sell stops were triggered (SL # Occur).

Take the Longer View

What is noteworthy is the fact that during the years 2004, 2006, 2007, 2009 and 2010, SPY B&H (blue) outperformed the trend tracking method; during 2010 even by a large margin. However, in the larger scheme of things, when including the abysmal bear market results, those outperforming years were simply not enough to mitigate the steep losses of 2002 and 2008.

And that is my point. *It is more important to protect your portfolio from the ravages of a bear market than being a few percentage points ahead during the bullish periods.*

Why?

Two reasons: 1. It takes too long to make up losses and 2. You'll give back a good chunk of your profits via buying and holding anyway once the next bear market occurs.

Keep in mind that your investing life is much shorter than your physical life; and spending a good part of it struggling to reach your portfolio breakeven point over and over is simply a waste of time.

Impact of the TTI Model Buy/Sell signals

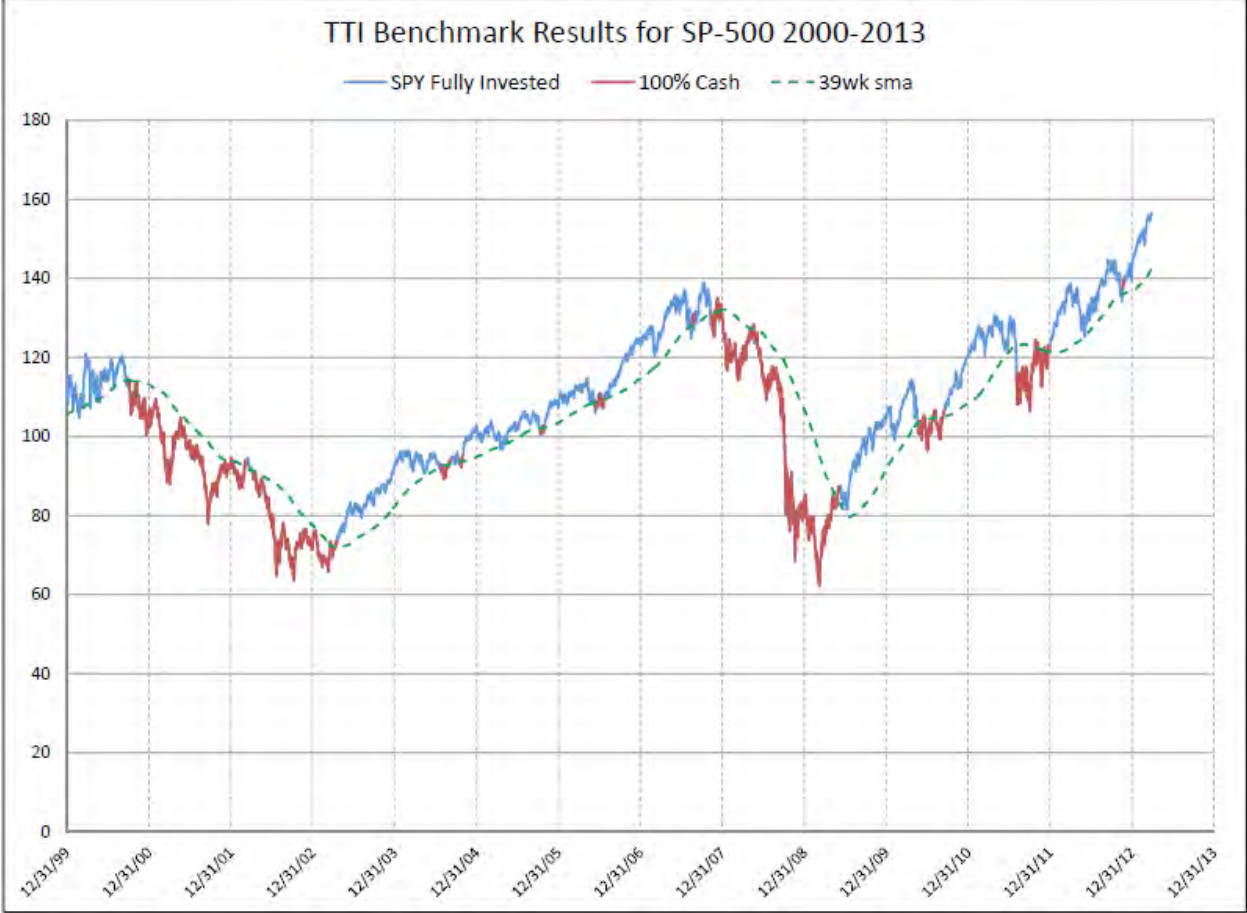


Chart 4

Chart 4 shows SPY from 2000-2013 with the impact of the TTI Buy/Sell signals based on their 39-week SMA. The fully invested time periods based on the trading rules are shown in blue and the 100% cash time frames are shown in red.

It gives you a quick glance of the importance of moving your portfolio to the safety of the sidelines when bear markets strike. And yes, at times there will be whipsaws signals, which are identified as the small red blips occurring close to the trend line. As I said before, short-term, they are an annoyance but long-term, they will make sure that you won't go down when a serious market setback occurs.

If you had followed the Trend Tracking indicators for the period stated, you would have been invested 63% of the time and had been in cash the remaining 37%.

Year by year details of the TTI Model signals

The following charts detail each portion of the year showing a close up view of the trend line crossings so that you can better analyze the behavior of the various signals.

Again, the blue line shows the Trend Tracking model in the market and the red line shows the cash positions, which match the big picture view in Chart 4.

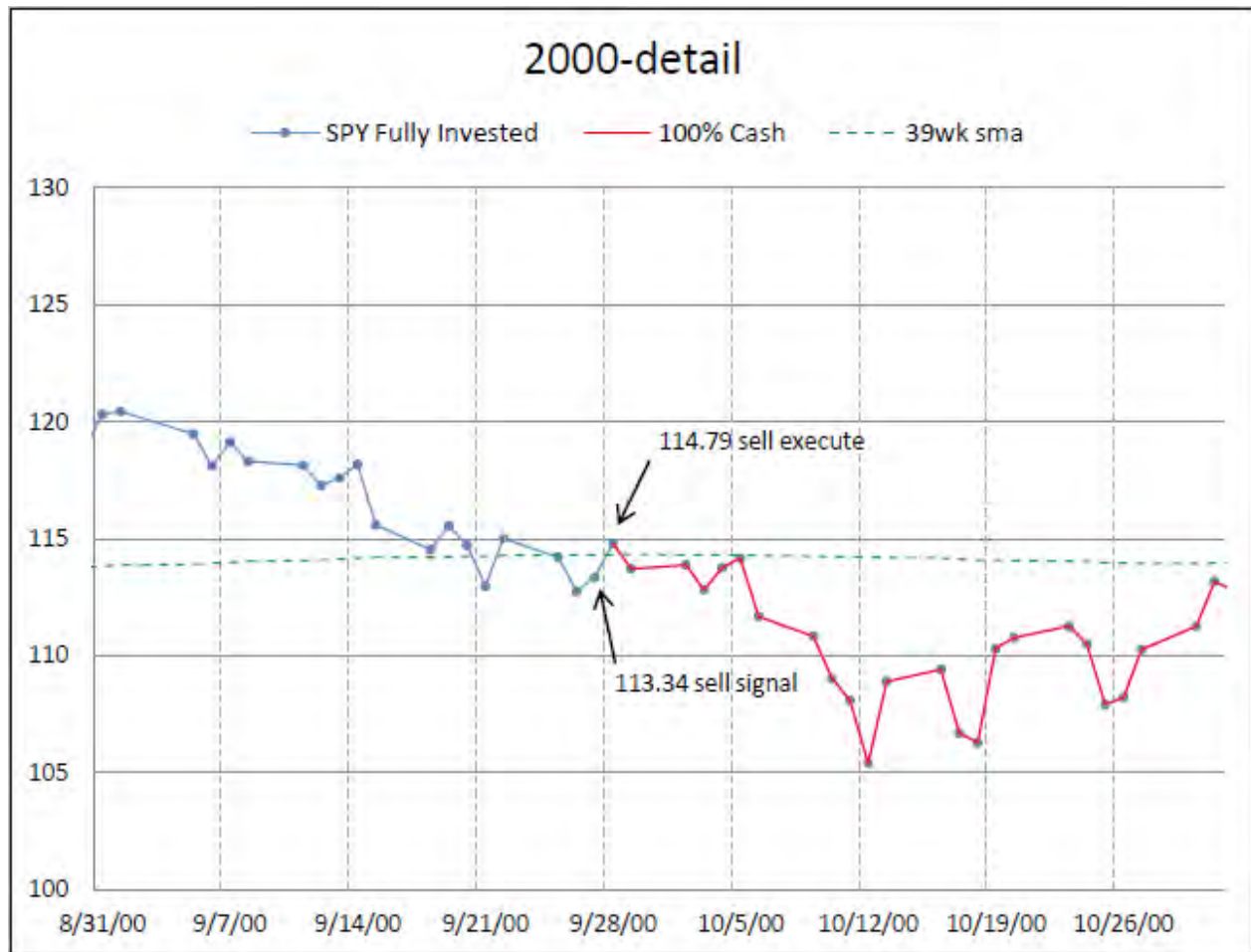


Chart 5

This was the first major "Sell" signal at the start of the 2000 Bear Market. It moved us safely into cash, and protected us from much of the 2000-2002 decline.



Chart 6:

As you can see, our “Sell” signal kept us safely on the sidelines in cash for the entire year, while the SP-500 continued to decline another 12%.

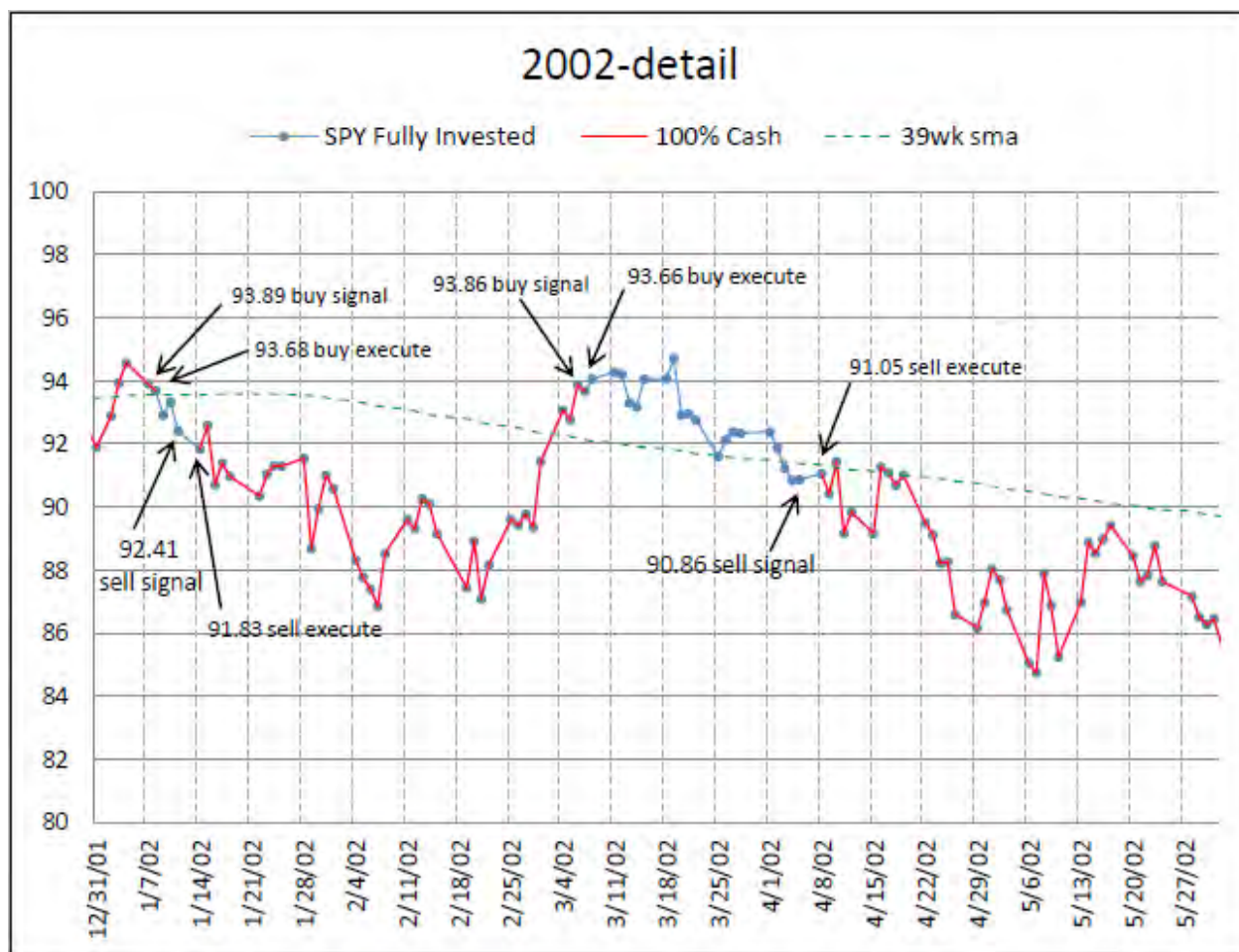


Chart 7

Two brief whipsaws, but we remained mostly in cash while the SP-500's lost another 22% for 2002.



Chart 8

The start of the new Major 2003 Bull Market – and we're in.

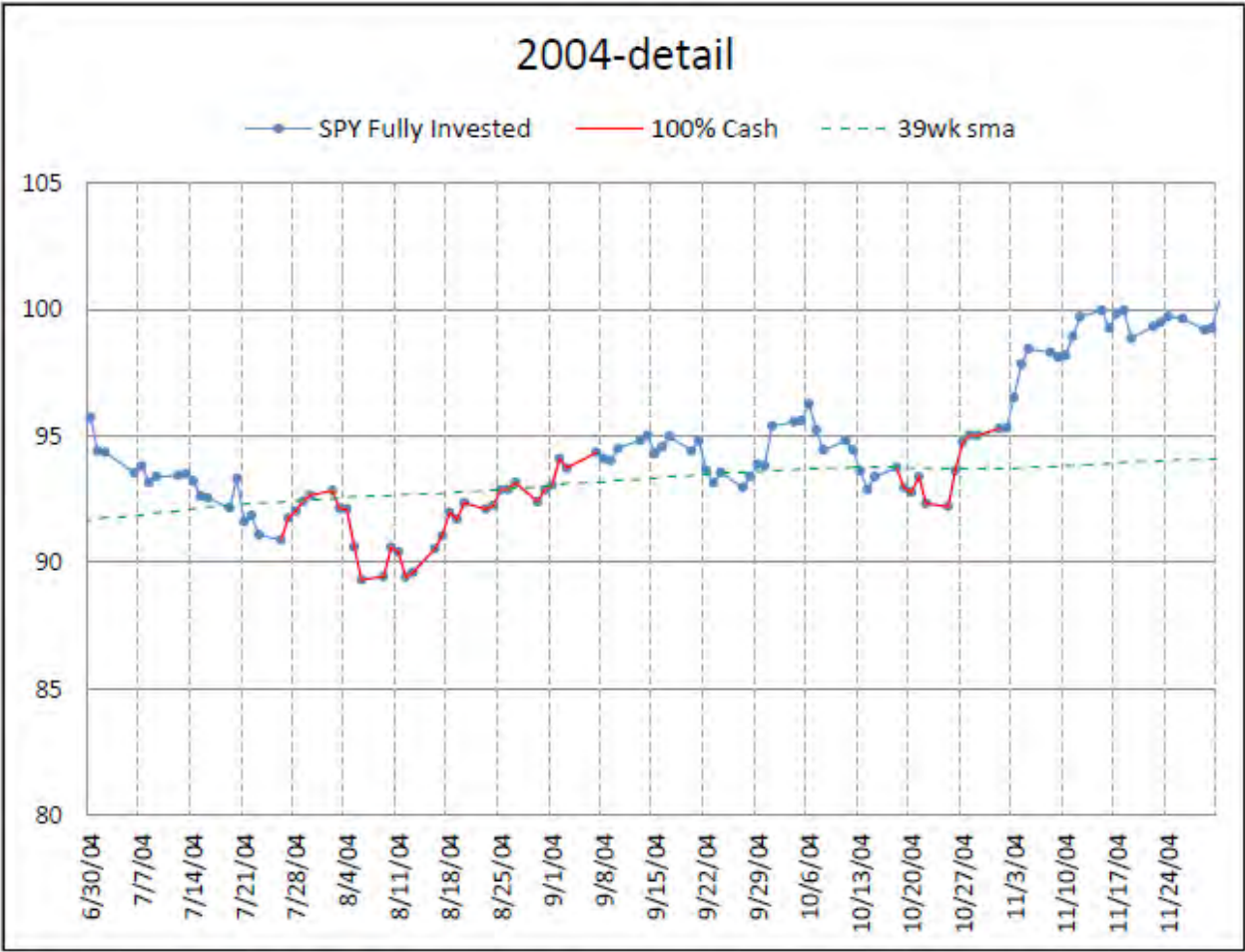


Chart 9

Some quick insurance whipsaws



Chart 10

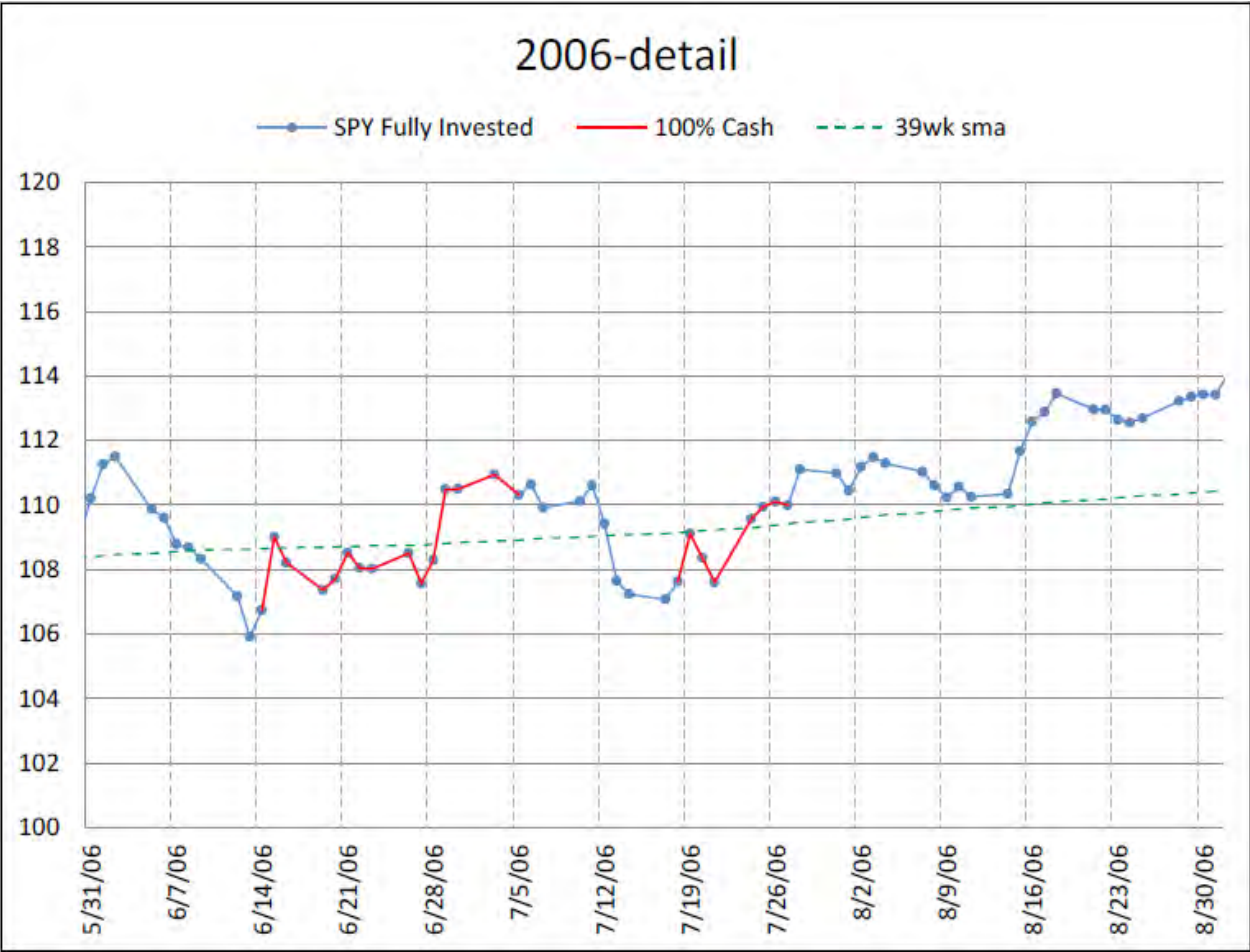


Chart 11

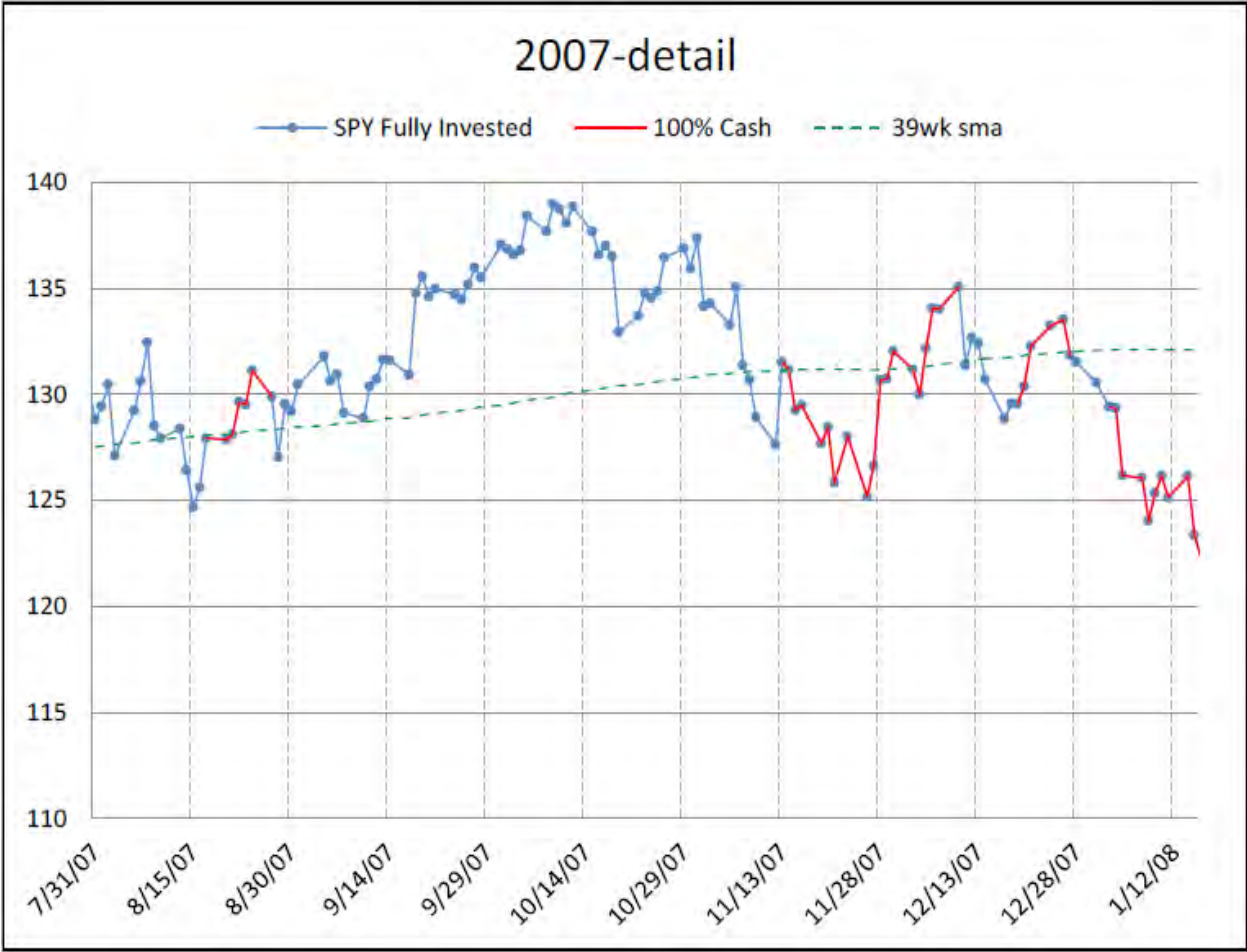


Chart 12

The Market Top in 2007, just before the start of the 2nd worst Bear Market in US history. Our "Sell" Signal gets us safely into cash in Dec 07 - Jan 08.

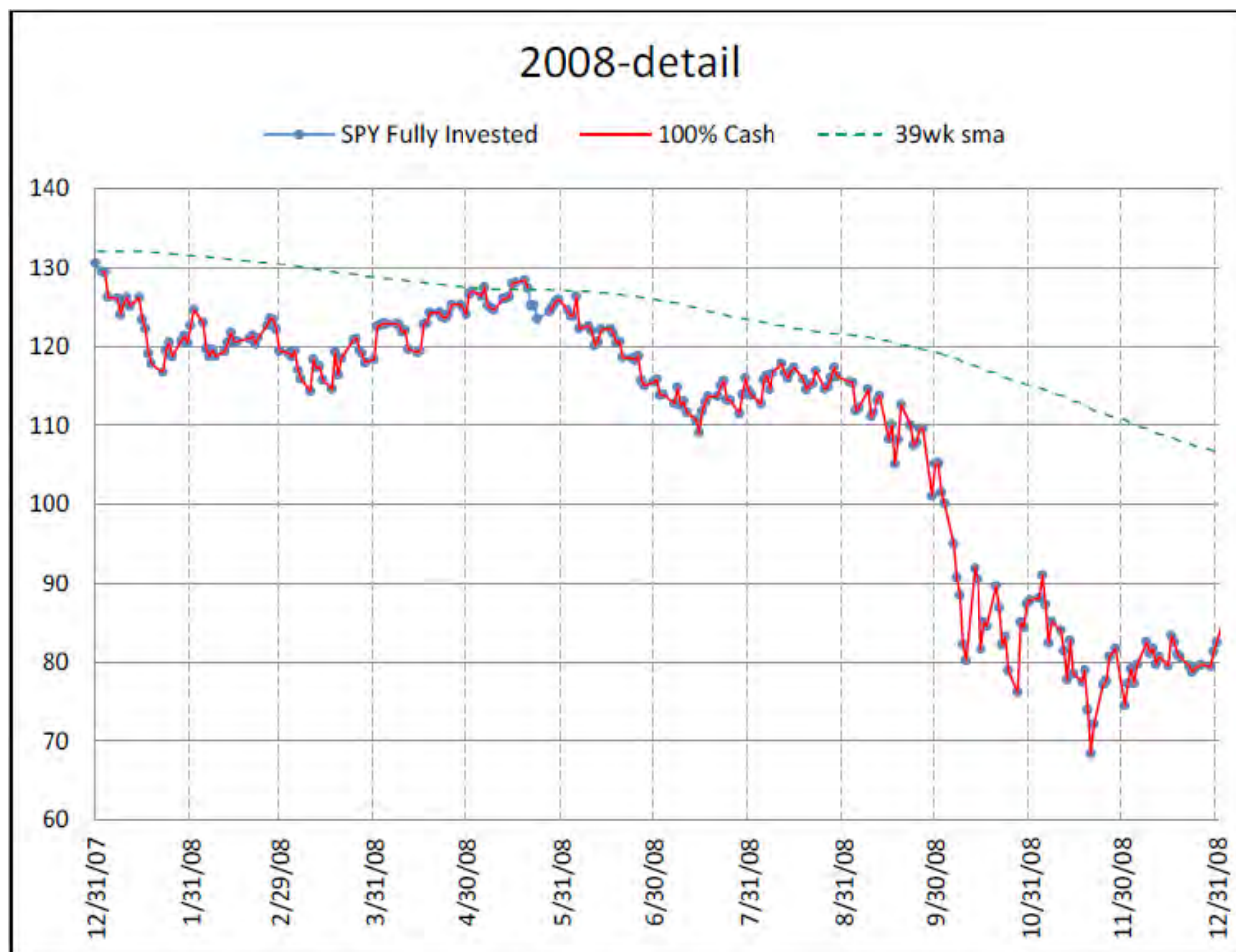


Chart 13

The Bear Market accelerates, and the market crashes in 2008, with a huge 37% loss. You can see that our TTI strategy keeps us safely on the sidelines in cash for the entire year, except for just a few days. We escaped almost entirely unscathed.

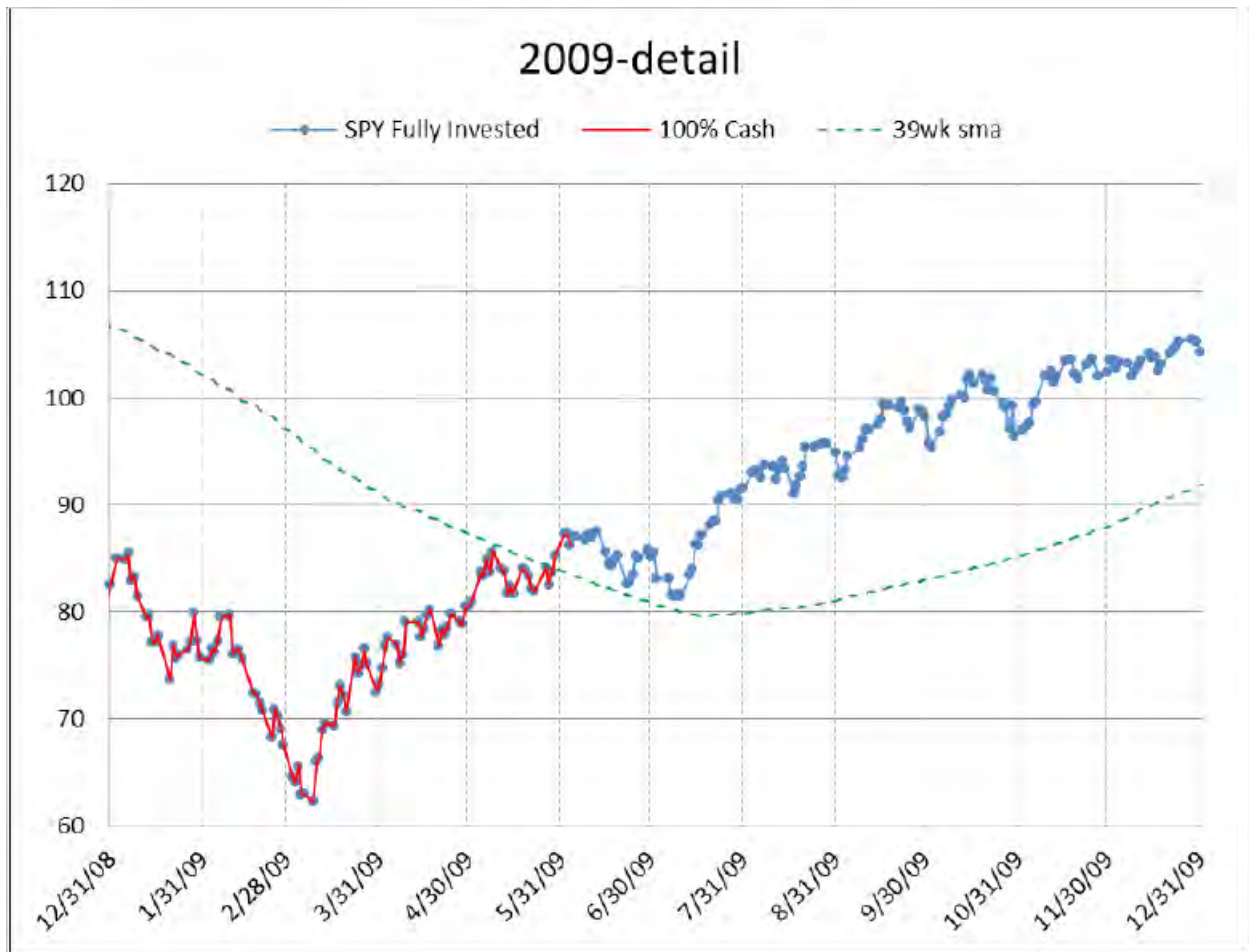


Chart 14

The Bear Market crashes further and finally bottoms in March 2009, while we watch safely from the sidelines.

The TTI signal finally signals our re-entry "Buy" point. The New 2009 Bull Market begins, and we are fully invested.

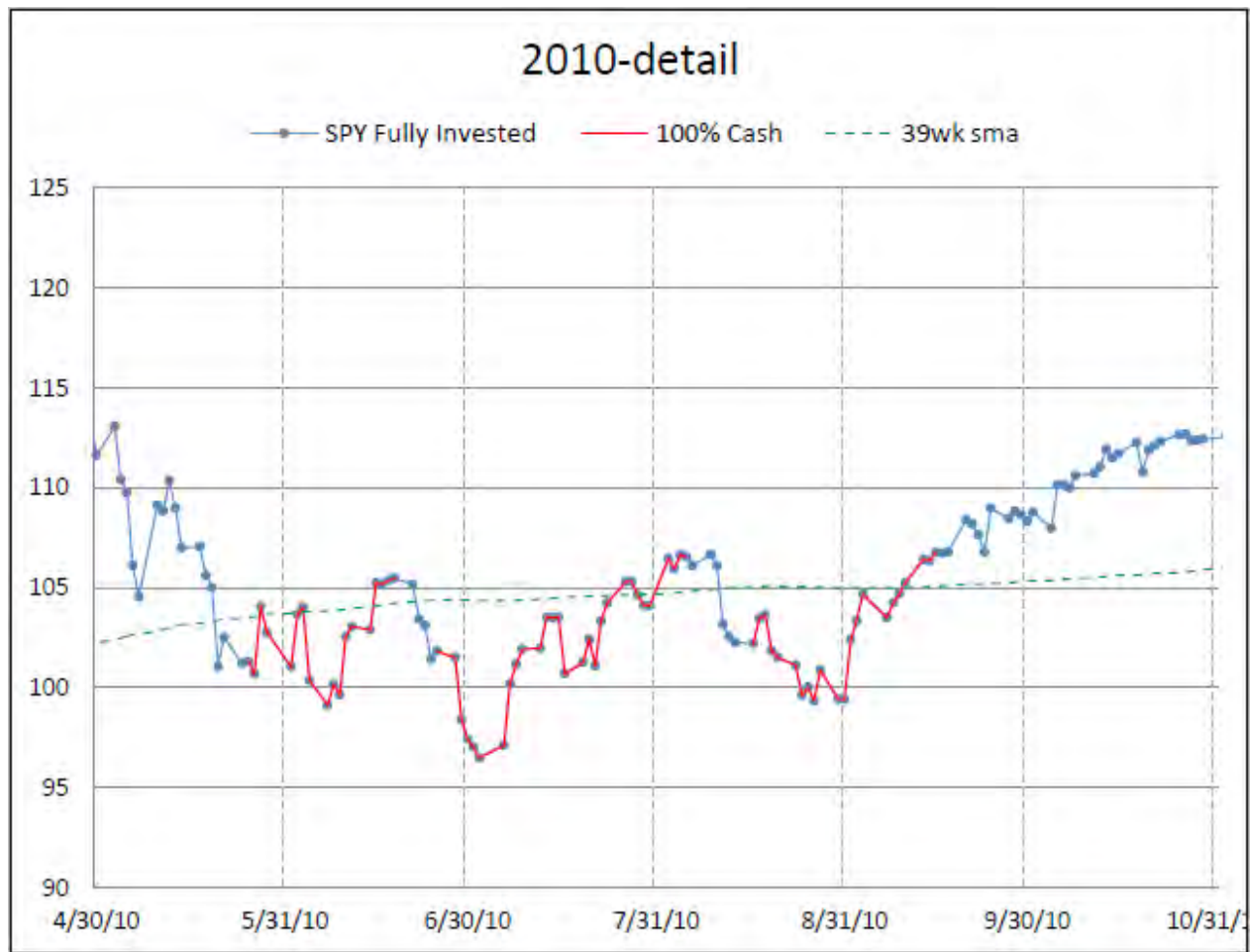


Chart 15

Some volatility and a correction, as the Bull Market continues.



Chart 16

A market correction, we re-enter, and the Bull Market continues



Chart 17

The Bull Market continues through 2012 into 2013, as we monitor the trend.

Stop Loss Summary

STOP LOSS RESULTS

Based on -7.5% SL Trigger, executing on close of next day.

Nine Stop-Loss Signals triggered, but 2 were exactly simultaneous with TTI SELL signal, as shown – so net 7 executions.

Re-entry rules: Re-Buy when/if it rebounds past the original SL basis (when in TTI BUY cycle).

STOP-LOSS RESULTS
2000- 2013

SL = -7.5%

Year	Occur	SL SELL		SL Re-BUY		Net SL G/L	Days out	NOTES
		Signal Date	Ex. Date	Signal Date	Ex. Date			
2000	1	1/28/00	1/31/00	3/17/00	3/20/00	-5.0%	34	
2000	2	4/14/00	4/17/00	-	-	-3.5%	114	--> Lead into TTI Sell Signal of 9/27/00
2006	3	6/13/06	6/16/06	SIMUL W/TTI SELL			0	Exactly coincide w/TTI Sell Signal of 6/13/06 - default to TTI Sell
2007	4	8/14/07	8/15/07	-	-	-2.6%	3	--> Lead into TTI Sell Signal of 8/16/06
2007	5	11/12/07	11/13/07	SIMUL W/TTI SELL			0	Exactly coincide w/TTI Sell Signal of 11/12/07- default to TTI Sell
2010	6	2/8/10	2/9/10	3/11/10	3/12/10	-7.7%	22	
2010	7	5/7/10	5/10/10	-	-	7.2%	11	--> Lead into TTI Sell Signal of 5/24/10
2011	8	8/2/11	8/3/11	-	-	4.8%	2	--> Lead into TTI Sell Signal of 8/4/11
2012	9	5/17/12	5/18/12	8/16/12	8/17/12	-8.3%	62	

Chart 18

The Stop Loss was triggered 9 times from 2000 to 2013. Two Stop Losses coincided exactly with the TTI major Sell signal, so actually only 7 Stop Losses were executed.

Looking at DrawDowns

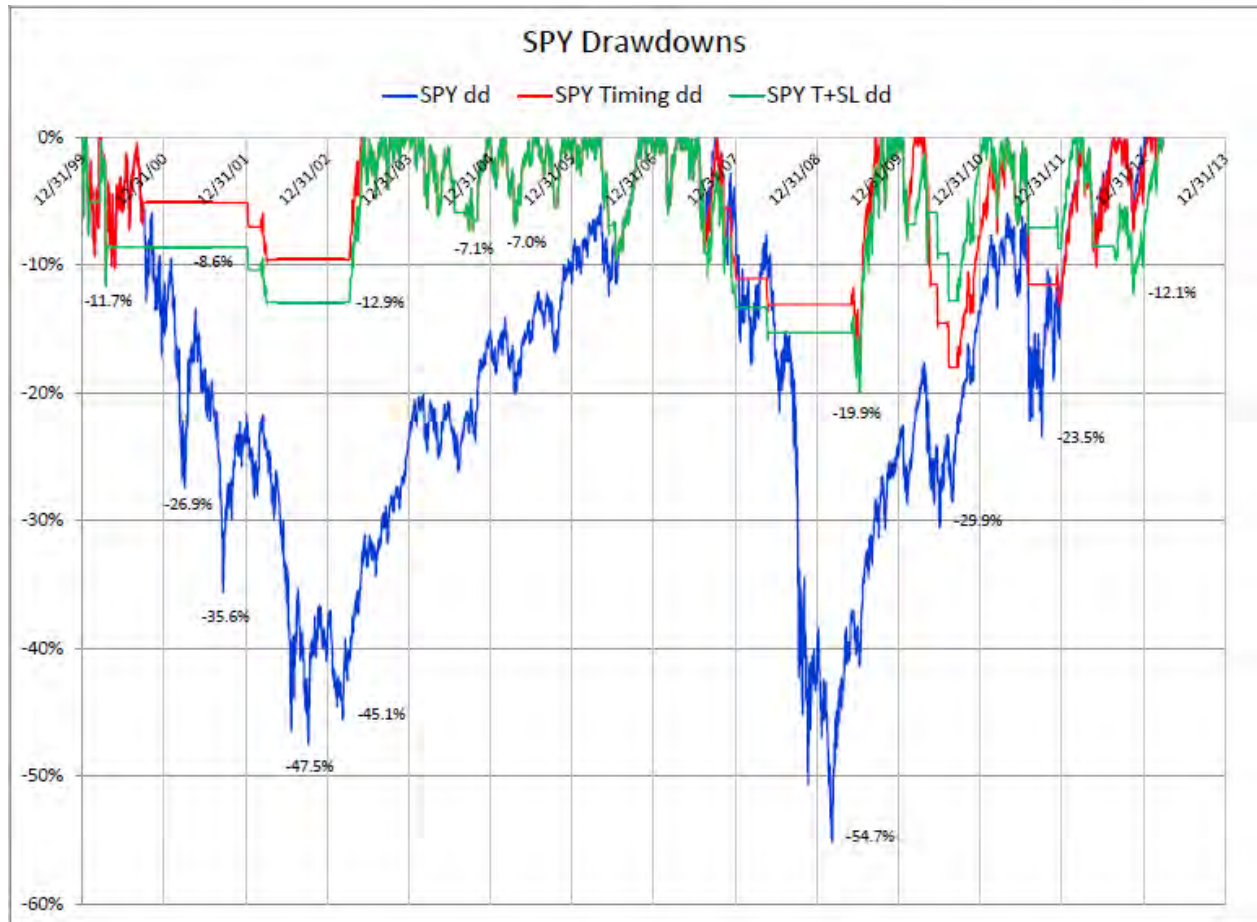


Chart 19

Draw downs (DDs) assist in evaluating how an investment method fares during negative market environments by detailing how much your portfolio gets pulled down when a sell-off occurs or an outright bear market strikes.

The devil is always in the details. Chart 19 clearly demonstrates the perils of being fully invested during this 13-year period as two bear markets struck with full force. It comes as no surprise that any method that keeps you out of the markets will show superior numbers.

SPY B&H is shown in blue while the 2 Trend Tracking approaches are shown in green and red. Please note that through about 2008, the SPY timing model (red) showed better DD numbers by not dropping as far as the Timing + SL Model (green), while in the later years, some occurrences showed the opposite such as in 2010 and late in 2011.

Overall, it has been my observation in my advisor practice that investors are having a hard time watching their portfolios being decimated and that the use of a clearly defined trailing sell stop, such as 7.5% as used in this test, has been preferable as it provides more peace of mind by knowing how much downside risk there will be at any given time.

The 10 Worst Days and the 10 best Days

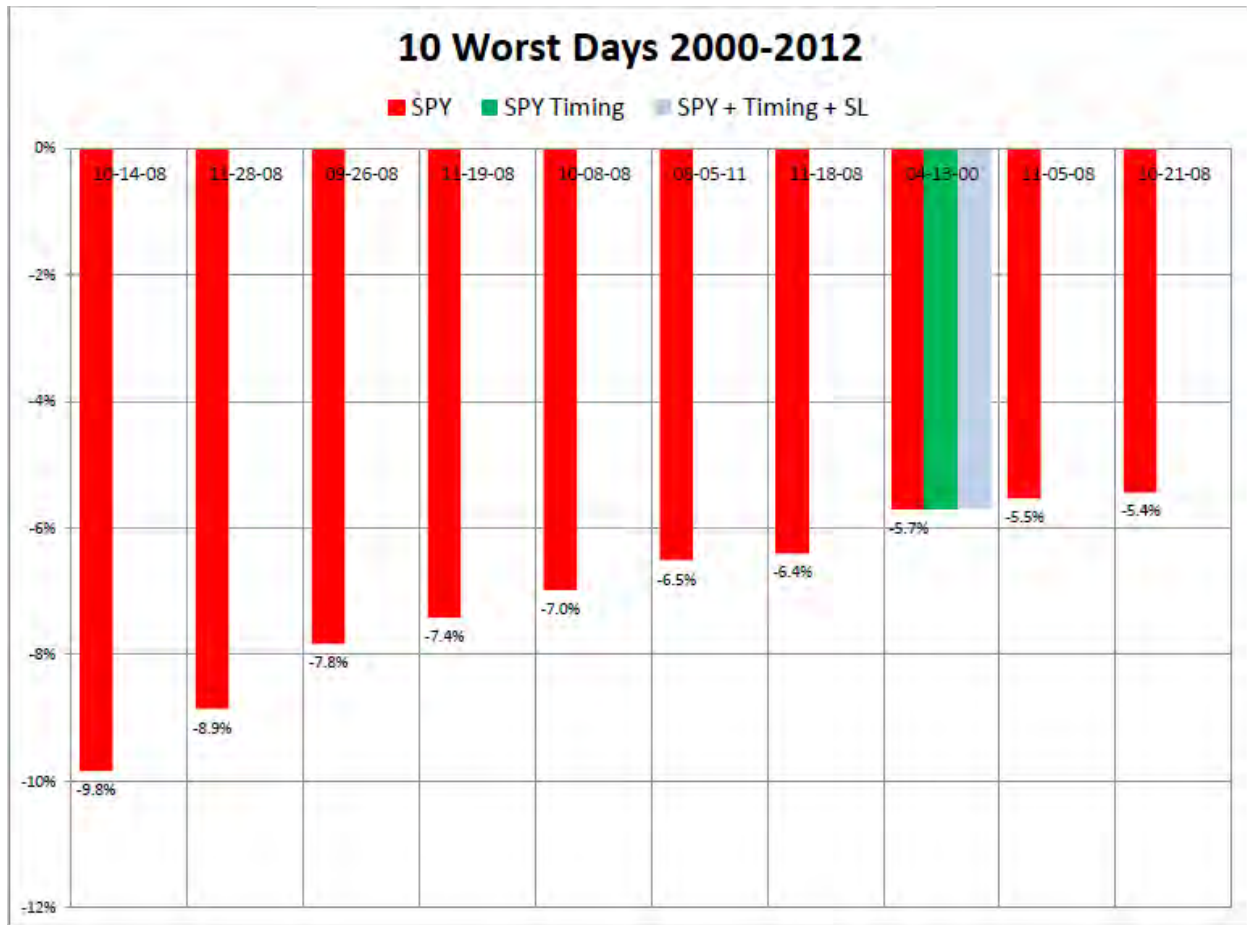


Chart 20

One of the most frequent arguments made against tracking trends and moving in and out of the markets has been the suggestion that you will not participate in the 10 best days even though you might avoid the 10 worst days.

Let's take a look at Chart 20 showing the 10 worst days. It may surprise you but the worst days usually happen once we have drifted into bear market territory and below the long-term trend line as the graph clearly shows. While B&H participated in all of them, Trend Tracking got caught only once and that was during the whip-saw period of April 2000, which at -5.7% was only a fairly minor correction.

Now let's look at the 10 best days.

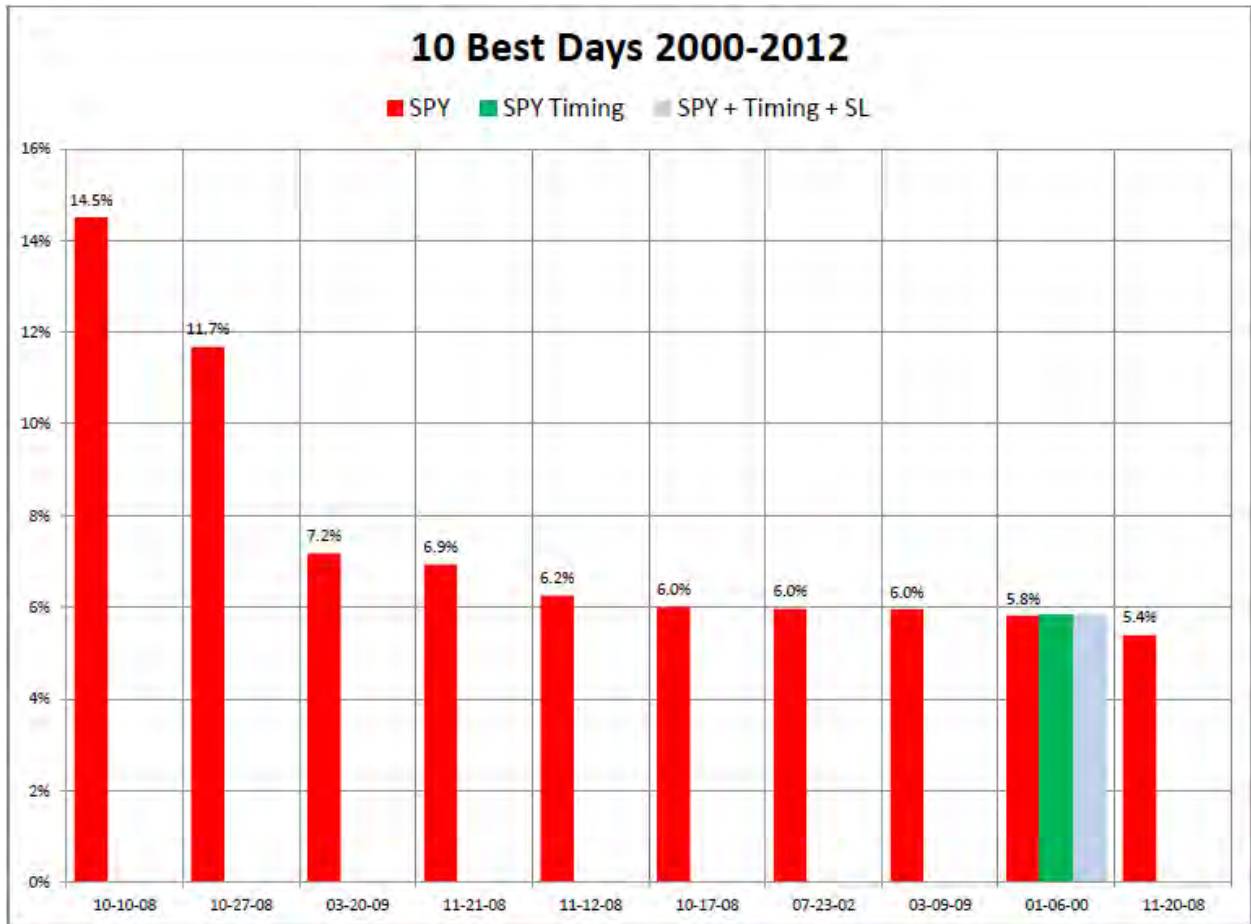


Chart 21

Please note the dates at the bottom of chart 21. The best days occur (with the exception of 1/6/2000) when the Trend Tracking methodology has the portfolios in cash and on the sidelines.

What that means is simply this: Contrary to common belief, participating in the 10 best days does not improve your portfolio performance per se; it only makes up some of the losses that were occurred as the bear markets struck while Trend Tracking had the portfolio 100% in cash.

Let's expand the time horizon a little and look at the 10 worst and 10 best weeks as well.

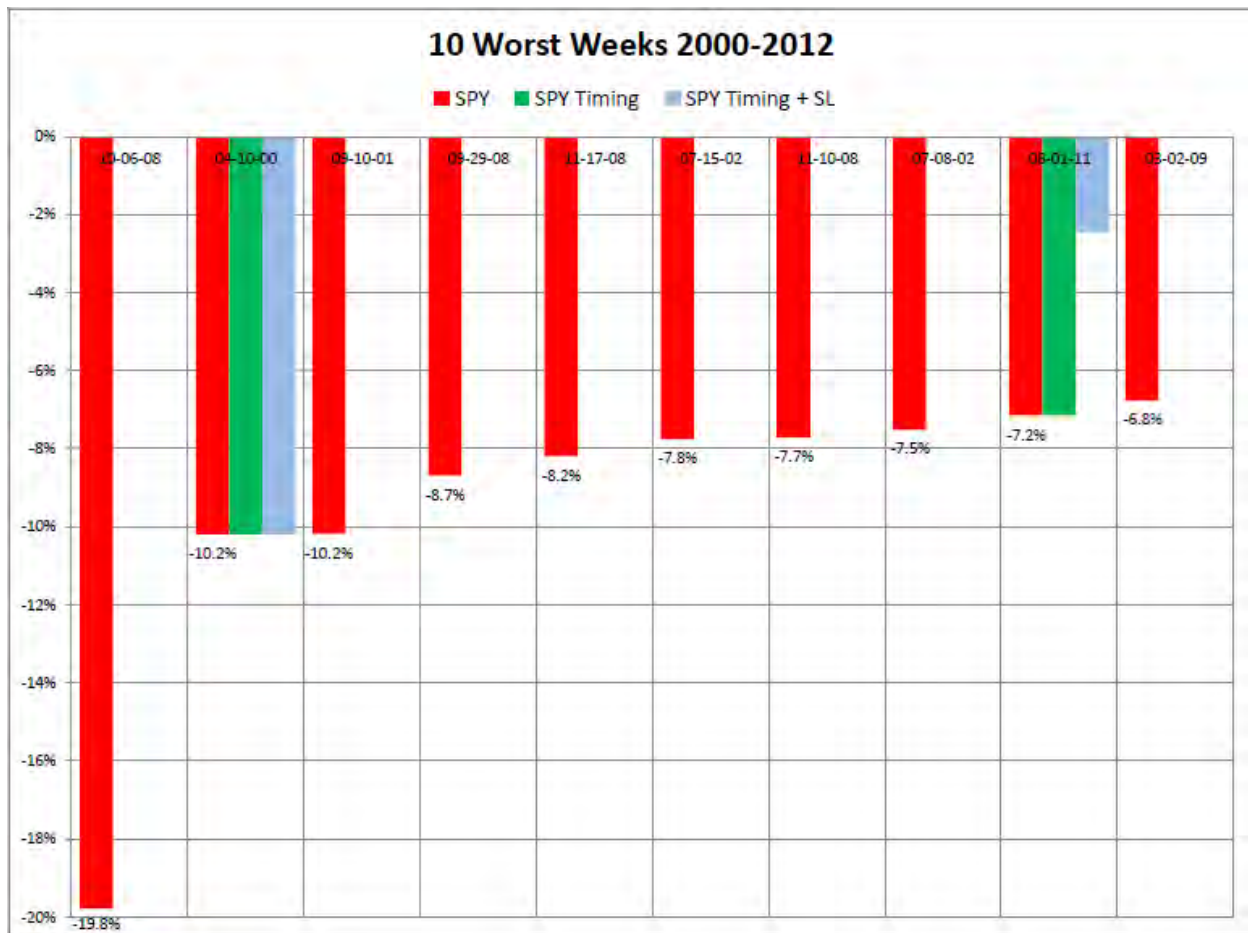


Chart 22

Chart 22 features the 10 worst weeks and here again, trend tracking avoided the brunt of the bearish forces while SPY B&H participated in wild market swings, which lead to severe portfolio draw downs.

However, I was surprised to see Trend Tracking participating in the pullback during the week of 4/10/2000 (second column from the left), which showed a loss of -10.2%. So, we dug a little deeper and found that the 3-day selloff on 4/12, 4/13 and 4/14 triggered the Sell on Friday, 4/14/2000.

Chart 22a shows the details:



Chart 22a

The execution of that Sell signal was the following Monday, where the markets finally went into rebound mode and pushed SPY up by +3.5%, thereby reducing the loss by that amount as our trading rules call for closing out the position on the close.

This is where active management comes into play as I tend to hold off with a planned liquidation on the day a sharp rebound occurs. More on that in the section "A Word about Sell Stops."

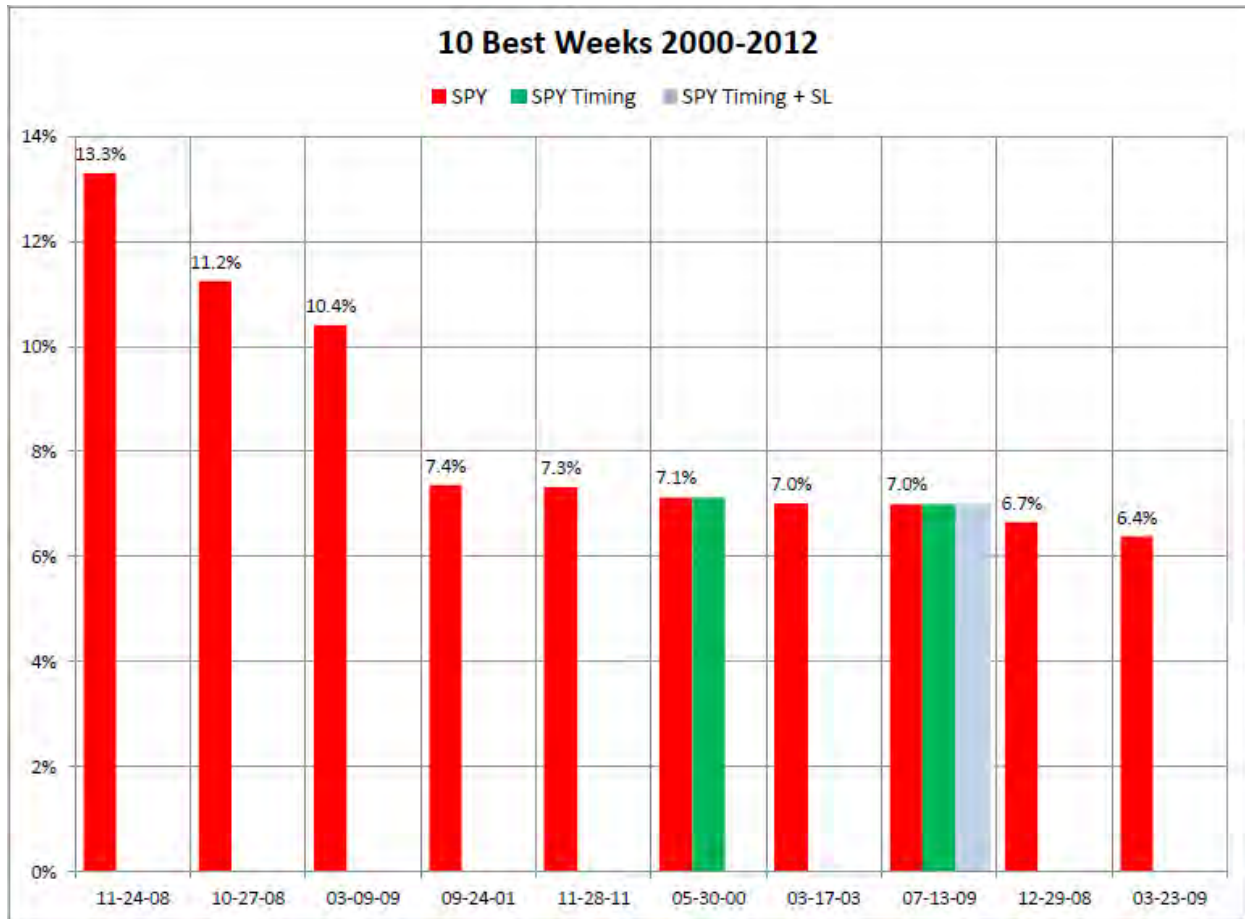


Chart 23

Just like in the 10 worst week's scenario, trend tracking did not participate in most of the advances. Again, looking at the dates at the bottom of Chart 23, it's confirmed again that 8 of the best weeks happened while SPY was below its 39-week SMA and entrenched in bear market territory.

Improving Volatility

When looking at the previous Best/Worst results, it would appear that avoiding most of the worst days via trend tracking would have considerable positive effects on the volatility of a portfolio.

Here's how we graphed it. The following 2 charts (Chart 23 and 24) show the daily volatility (daily Hi-Low Trading Range +/-, compared to the previous day's close) of each portfolio. To be more accurate in regards to intra-day price swings, we used the actual S&P 500 prices.

While there are many ways to look at volatility, we tried to keep it simple and to the point.

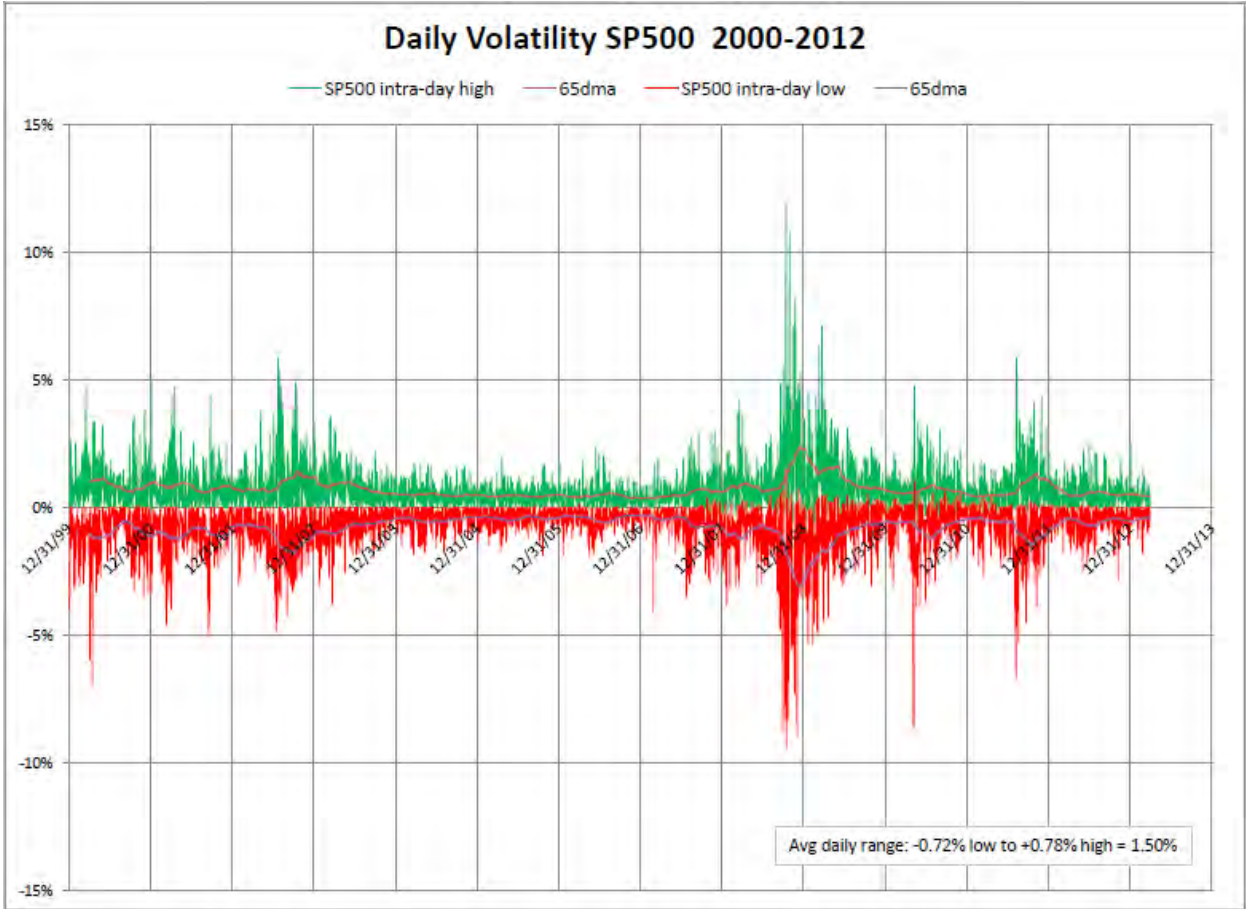


Chart 23

To see the difference graphically, you need to toggle back and forth between Chart 23 showing the volatility of the S&P 500 and Chart 24 demonstrating the lesser volatility of the trend tracking method.

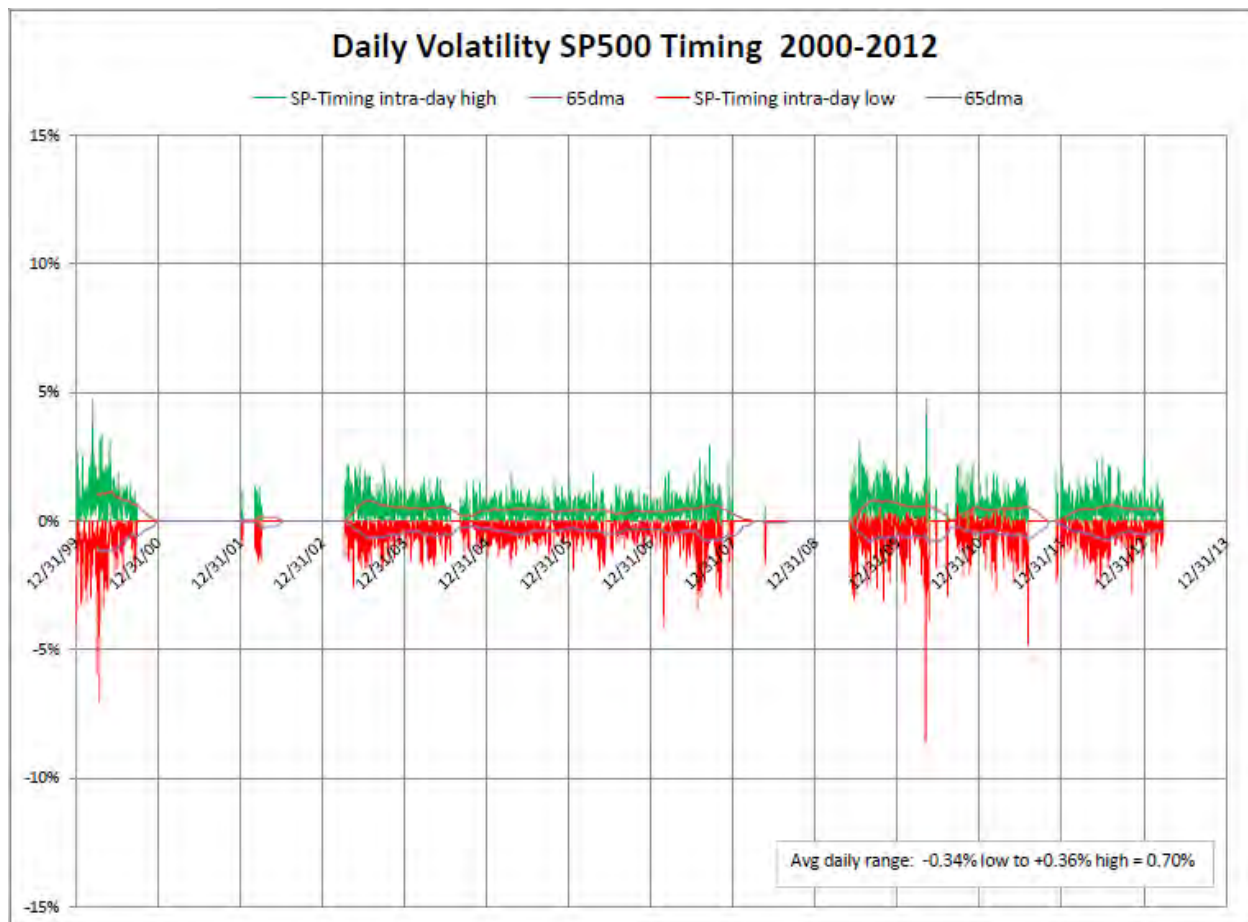


Chart 24

These 2 pictures are worth a thousand words. Notice in Chart 24, that at times the portfolio had no volatility at all, which occurred when we were in cash and on the sidelines. The remainder of the time, the average daily volatility range was 0.70% vs. 1.50% when using SPY B&H.

The Bottom Line

In other words, using the same index (S&P 500) but combined with a different investment methodology we were able to cut volatility by 53% while obtaining a better long-term performance.

And that's how you "Beat the S&P 500...with the S&P 500."

Same Method, Different Benchmark

While the test run described here has centered on the use of the S&P 500 index (SPY), you might be interested in knowing how this approach would work with a different broadly diversified ETF.

Generally, the S&P 500 is the mother of all benchmarks against which all performance is measured. But you might want consider using an alternative ETF for various reasons such as lower volatility to begin with in order to reduce potential whipsaw signals.

The Importance of Easy Exit

There are now some 1,500 ETFs on the market and the number is growing every week. My personal preference in my advisor practice is to use only those that trade at least \$10 million per day, so that plenty of volume allows me to exit a position without too much slippage in price. SPY has a volume of over \$10 billion per day, so getting in or out does not present a problem.

Low Volatility ETFs

Low volatility ETFs have come on the market over the past 2 years and have been one of my favorites in my business. Unfortunately, most of them don't have much price history so testing them will not give us any useful results.

The low volatility S&P index (SPLV), however, closely mirrors the Consumer Staples ETF (XLP), which has been in existence since 1998, so we have run that one through the ups and downs of the past 13 years to see how buying and holding XLP compares to the Trend Tracking methods. At an average daily volume of over \$400 million, sufficient liquidity is assured.

The results turned out to be very similar to that of the SPY test.

A Word about Sell Stops

After reading this report, you may be intrigued by the use of a trailing sell stop discipline. As mentioned, you may want to read my [free e-book](#) on the subject, which is compilation of the most frequently asked questions that were posted to my blog.

One important point I want to make is this: Do not place your sell stops ahead of time. We are living in an environment of front running, market manipulation and High Frequency Trading all of which could affect your sell stop before you meant to have it executed.

Here's how I do it in my advisor practice.

I track my sell stops for all holdings on a spreadsheet, which gets updated every day. Let's say, in accordance with our trading rules, a stop for one of my positions has been triggered based on that day's closing price.

The next morning, I check the market activity and, if there is a huge rebound in the markets, I will hold off another day in order to avoid a possible whip-saw signal. If the markets just meander and my triggered position shows no improvement, only then do I place a limit order to close it out. I try to avoid using market orders, unless the indexes move fast and I really need to exit.

Weeks Where Decades Happen

I started this e-book with Vladimir Lenin's famous quote "*There are decades where nothing happens; and there are weeks where decades happen.*"

It's those weeks where decades happen that you need to guard against. I believe that via the use of my Trend Tracking methodology, you'll be able to have a little better control over your portfolio in a market environment that increasingly looks to be out of control.

Feel free to contact me for any questions you may have.

About The Author



Ulli G. Niemann is a Registered Investment Advisor and has been advising clients on money matters since the 1980s. His advisory business focuses on helping investors grow their capital via his proprietary trend tracking methodology. He publishes a free weekly newsletter that is currently read by over 15,000 subscribers.

He writes a daily blog called the ETF Bully (www.theETFBully.com) and lends a helping hand to investors who are looking to preserve their wealth and capital by using a sensible non-Wall Street approach to better control their financial destiny.

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Richard owns Princeton Investment Research in New Jersey and has been quoted in the Wall Street Journal for his analysis. This project would not have been possible without his valuable contribution for which I will be forever grateful. Richard can be reached via email at richard@princetoninvestment.com and at 908-817-1119.

