

Introduction to Portfolio Management and Drawdown Control

This presentation is an accumulation of research started in 2006 and used live since then. I won the World Cup Championship of Stock Trading® in 2008, assisted by my invented Tsunami Indicator on September 4 when I got a Sell Everything signal. Along the way I have added indicators that further define when the market is investable as opposed to cash positions, short positions or a hedge.

I lectured at the AAI Research Triangle Chapter in 2013 and since then several things were added to my analysis:

- 1) Market Strength Indicator
- 2) Long Term Market Strength Indicator
- 3) VIX
- 4) Market Momentum Indicator
- 5) Pep Indicator
- 6) Shortable Correction
- 7) Market Strength Indicator Target

Not only do bear markets and corrections damage portfolio gains, but many stocks may never recover from getting crushed during market declines. The savings I introduce by selling out before a crash are significant. A compendium of dates are listed as well as methods used. Two PowerPoint slide shows with charts and detail are included. Along with theory, live results are needed for me to build confidence that my analysis works. During my research I wondered if the area that I am looking at in the market is correct, with principles of quantitative analysis applied to technical analysis.

The concepts of market tops may be:

- 1) The market stalls out and the internals start falling apart (Tsunami Indicator)
- 2) The market is too high and is starting to split apart (Fifty New Lows Rule)
- 3) The market goes into freefall (Accelerating New Lows)
- 4) A series of tops followed by a verified sell signal may occur.

The concepts of market bottoms may be:

- 1) The investing community has given up on the market (All Clear)
- 2) The market is rebounding strongly enough for a quick trade (Intermediate Buy)
- 3) A significant pulse in the market is generated by the Pep Indicator

Savings generated by these signals starting with available data are as follows:

- 1) Long Term S&P Market Timer – 60.05%
- 2) Tsunami Indicator, Fifty New Lows Rule and Accelerating New Lows – 616.12%%
- 3) Shortable Correction Hedge – 38.34%

All of the principles above are shown in my website that I offer for \$10 a month. Investors should be aware that no signal is guaranteed to be profitable and past performance is not indicative of future performance.

Bryan Johnson

Moon Run Report

www.moonrunreport.com

Glossary

Acc NL – (Accelerating New Lows), – When the number of Normalized New Lows at the sell signal jumps significantly as compared to Normalized New Lows at the top. A market decline is forecast.

All Clear, – A long term buying opportunity that needs to be confirmed by the Pep Indicator. This represents a major bottom.

Bear Market, – A 20% or more decline in the market from top to bottom.

Candidate Buy and Sell Signals, – Signals generated that require additional metrics to determine if stocks should be bought sold, held or hedged.

EMA – (Exponential Moving Average), – An average of prices with more weight given to most recent days.

IB – (Intermediate Buy signal), – A short term trading opportunity to capture market gains.

IWM – (iShares Russell 2000), – an ETF managed by Blackrock based on the Russell 2000, which includes volume of shares traded.

Long Term S&P Market Timer – A collection of buy and sell rules based on the S&P 500 to govern exit and entry dates.

LTMSI – (Long Term Market Strength Indicator), – A metric based on a 250 day EMA of the Market Strength Indicator. Readings above 4.20 indicates a “safe” market while readings below 4.20 indicate a “volatile” market.

Major Sell Signal, - Refers to the Tsunami Indicator, Fifty New Lows Rule, Accelerating New Lows or Series of Tops.

Market Strength Indicator Target, - This is the Market Strength Indicator reading at the candidate sell signal minus 0.50. Used by the Shortable Correction to determine when the hedge should be closed out.

Market Timing, – A combination of buy and sell rules designed with the intent of avoiding market declines in the stock market.

MMI – (Market Momentum Indicator), – A metric based on price and volume that measures strength of a buy signal. This is a subset of the Pep Indicator.

MSI – (Market Strength Indicator), – A metric based on Nasdaq Advances/Declines, Nasdaq New Highs/New Lows, Nasdaq Volume, Russell 2000 Price and VIX that measures how strong the stock market is at the particular date. Readings above 4.50 at the top of the market and 3.80 at the sell signal represent a strong market that should not be sold. These readings are not used when initiating a Shortable Correction hedge.

NNH – (Normalized New Highs), – An adjustment of the Nasdaq New Highs in order to provide for a fluctuation of the number of stocks in the NASDAQ. The expression is $(\text{Nasdaq New Highs}) / 200 \text{ day EMA of } (\text{Nasdaq Advancing stocks} + \text{Declining stocks} + \text{Unchanged stocks}) * 3000$. The 3000 represents about the number of stocks traded in 2017 in the NASDAQ.

NNL – (Normalized New Lows), – A similar equation to Normalized New Highs using the Nasdaq New Lows instead.

NNL > 50 – (Fifty New Lows Rule), – When there are more than 50 Normalized New Lows at the top of the market this signals that the market is splitting apart and forecasts a market decline.

Pep Indicator, – A metric based on the Market Momentum Indicator to show the pulse of buying on a candidate buy signal. Readings above 3.8% represent a strong pulse; readings below 3.8% represent a weak pulse.

ROD – (Rate of Decline), – A calculation representing the slope of the line generated from the top to the candidate sell signal to determine if the market is falling sharply or stalling out. My theory suggests that bear markets stall out whereas corrections fall sharply from the top to the sell signal.

Russell 2000, – A small cap index of two thousand stocks managed by the Frank Russell Company.

S&P 500, – A large cap index of five hundred stocks managed by Standard and Poor's Index Committee.

Series of Tops, – A series of candidate sell signals with high Normalized New Lows readings at the top that are suggesting the market is overbought followed by a candidate sell rule where the VIX is between 19 and 25 and the Market Strength Indicator is falling below 3.80.

Shortable Correction, – A decline forecast that usually is less than a 20% decline (bear market) that can be hedged by writing or buying options or buying an inverse index fund. Shortable Correction is based on Rate of Decline, Normalized New Lows and VIX.

Shorting the Market or Hedging, - Taking a position in the market in order to profit when the market goes down.

SIMT – (Short to Intermediate Market Timer), – A collection of rules designed to generate candidate buy and sell signals based on either the Russell 2000 or IWM small cap indexes.

Top (of the market), – The highest closing price of the Russell 2000 or IWM between the latest buy signal and the following sell signal.

Tsunami Indicator, – A combination of Normalized New Lows, Rate of Decline, Market Strength Indicator at the top and candidate sell signal, and VIX to show whether a market decline is forecast.

VIX, – An options metric calculated by the Chicago Board Options Exchange (COE) that measures investor confidence, a.k.a. the fear index.

Summary of Trading Opportunities:

Selling Opportunities

Tsunami, Fifty New Lows Rule, Accelerating New Lows or Series of Tops sell signal.

Long Term S&P Timer sell signal

Sell Signal generated after a previous Intermediate Buy signal

Buying Opportunities

All Clear signal

Intermediate Buy signal

Pep Indicator > 3.8%

Long Term S&P Timer Buy signal

Hold Rule

Pep Indicator < 3.8%

Cover and do not buy

Pep Indicator < 3.8% after a long decline

Hedge

Shortable Correction sell signal. Cover when Market Strength Indicator reaches target or a reversing candidate buy signal occurs

Progress Report

In 2006 I attended a mutual fund manager's meeting where he announced if anyone could call market tops and bottoms within six days he had a job for him. Well, I went home, did a study and sent it in. The next time I saw him I asked if I had a job and he said no. Undaunted, I decided to keep a track record, and entered the World Cup Championship of Stock Trading® in 2008. I used my tool, called the Tsunami indicator, and got a sell everything signal on September 4. I recorded a 48% gain that year and took first place.

There were two components to the Tsunami Indicator: the Rate of Decline Indicator and the Nasdaq New Lows. Basically, they show that if the market stalls out (Rate of Decline) and the market starts to show weakness (Nasdaq New Lows) then we are set for a crash. The Nasdaq New Lows were later normalized to increase accuracy and other indicators were added later on to confirm the impending doom.

Along the way I formed a website the Moon Run Report (www.moonrunreport.com) and made it free from 2009 to 2012. Presently I charge \$10 a month and offer timing signals and stock portfolios. I have improved on methods periodically to address issues that might be a blind spot in my analysis. Currently I use Metastock for developing market timing ideas and Portfolio 123 to invent stock portfolios. I base my index on the Russell 2000 and also the iShares Russell 2000 (IWM).

After a speech in Denver I realized that I needed a way to determine market strength and weakness. I was familiar with the CNN Fear and Greed index but had no way of duplicating it, so I invented my own, called the Market Strength Indicator. There are five components:

- 1) Nasdaq Advances and Nasdaq Declines
- 2) Nasdaq New Highs and Nasdaq New Lows
- 3) Nasdaq Up/Down Volume
- 4) Russell 2000 price (for before March 2000) and iShares Russell 2000 (IWM) (for after March 2000)
- 5) VIX

By observation, I drew two thresholds where the boundaries would be. At market tops the market is too strong for a Tsunami above 4.50, and at the sell signal the market is too strong above 3.80. Both readings are necessary. Below those thresholds, the market is ripe for a Tsunami.

Another filter was necessary, so I tried a combination of advances and decliners but finally settled for using the VIX, or the CBOE Volatility index. Currently if the VIX is between 19 and 25, this is the final test for a Tsunami. When it is below 19, the market is too strong. Above 25, the market has fallen too far.

A change was necessary for the Nasdaq New Lows. The number of stock listed on the Nasdaq fluctuates, and I needed a way to normalized it for a standard reading. So I divide the Nasdaq New Lows by the 250 day exponential moving average of the Nasdaq advancers, decliners and unchanged issues and multiply by 3000 (approximate number for today) and called it the Normalized New Lows.

Over the years I developed a market timer called the Short to Intermediate Market Timer which generates buy and sell signals. Based on the Russell 2000 and IWM, these are Candidate buy signals and Candidate sell signals. On a candidate sell signal, the Major sell signal components are compared.

So here are the components of the Tsunami indicator:

- 1) Normalized New Lows > 40 at the sell signal
- 2) Rate of Decline > 190 at the sell signal
- 3) Market Strength Indicator < 4.50 at the prior highest peak
- 4) Market Strength Indicator < 3.80 at the sell signal
- 5) VIX > 19 And VIX < 25 at the sell signal

When these pass each test a Tsunami Indicator is validated.

Another signal is the Fifty New Lows Rule:

- 1) Normalized New Lows > 50 at the peak
- 2) Market Strength Indicator < 4.50 at the prior highest peak
- 3) Market Strength Indicator < 3.80 at the sell signal
- 4) VIX > 19 And VIX < 25 at the sell signal

When these pass the test the Fifty New Lows Rule decline is forecast

The third signal is the Accelerating New Lows calculation:

Using NNLT = Normalized New Lows at the prior highest peak

Using NNLS = Normalized New Lows at the sell signal

- 1) $(NNLS - NNLT) / (NNLS + NNLT) > 80\%$

When this calculation passes the test the Accelerating New Lows decline is forecast

Another bear market signal is generated if a series of market tops are noted by large New Lows followed by a verified sell signal. These market tops are not confirmed by the MSI or VIX, rather, ended by a sell signal that is confirmed.

After a decline, there are three signals I generate on the date of a Candidate buy signal to determine if it is safe to go back in the market

- 1) All Clear signal
- 2) Intermediate Buy signal
- 3) Pep Indicator

When I backtested the All Clear signal, it appeared so many times accurately for each decline that I was astonished at its performance. After a test, I needed a confirming signal to see how strong the market was, so I developed the Pep Indicator. Designed to measure the pulse of the market on the All Clear signal, this is needed to determine how price and volume were measured.

Also the Intermediate Buy signal was developed to signal a quick trade during the decline before the All Clear signal was generated. This too needs to be confirmed by the Pep Indicator.

The Pep Indicator can be used alone to determine market strength

So here are the thresholds for reinvesting:

The Pep indicator appears at each buy signal, so a reading of over 3.8% will generate a major buy signal. The Intermediate Buy Signal usually appears during a decline, giving the investor a short term buying opportunity.

The All Clear signal usually appears at the end of a long decline, giving a major buying opportunity. Both the Intermediate Buy and All Clear need to be supported by the Pep Indicator being over 3.8%.

Longer term buy and sell signals are generated by the Long Term S&P Timer and are used by the Conservative and Mega Cap portfolios on my website.

A potential for hedging the market is generated by the Shortable Correction signal. On a Candidate sell signal, the following test is made:

- 1) Normalized New Lows > 30 at the prior highest peak
- 2) Normalized New Lows > 60 at the sell signal
- 3) Rate of Decline < 190 at the sell signal
- 4) VIX < 20 at the sell signal

When this is valid, I use the Market Strength Indicator reading at the sell signal and subtract 0.50. This number is the target, so when the Market Strength Indicator falls below this number it is time to cover the hedge. If a Candidate buy signal appears before the target price is reached, cover.

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I have developed eight portfolios and ten timers for my subscribers.

My website portfolios are:

Conservative, Mega Cap, Prudent, Value, Aggressive, Microcap, Breakout and Small Cap

Timers for the following:

Emerging Markets, Gold, Real Estate, IWM, S&P 500, QQQ, Sugar, US Dollar, Bonds and Short to Intermediate Market Timer

Summary of decision rules for bear markets and shortable corrections

Rules for Tsunami Indicator

- 1) Sell signal Identified by Short to Intermediate Market Timer
- 2) Rate of Decline > 190
- 3) Normalized New Lows > 60
- 4) Market Strength Indicator < 4.5 at the top of the market
- 5) Market Strength Indicator < 3.8 at the sell signal
- 6) VIX > 19 AND VIX < 25
- 7) Reinvest at All Clear AND Pep Indicator > 3.8%

Rules for Fifty New Lows Rule

- 1) Number of Nasdaq New Lows > 50 at top
- 2) Market Strength Indicator < 4.5 at the top of the market
- 3) Market Strength Indicator < 3.8 at the sell signal
- 4) VIX > 19 AND VIX < 25
- 5) Reinvest at All Clear AND Pep Indicator > 3.8%

Accelerating New Lows

- 1) Accelerating New Lows calculation > 80%
- 2) Reinvest at Pep Indicator > 3.8%

Hedge

- 1) Sell signal Identified by Short to Intermediate Market Timer
- 2) Rate of Decline < 190
- 3) Normalized New Lows > 60 at sell signal
- 4) Normalized New Lows > 30 at top
- 5) VIX < 20
- 6) Subtract .50 from the Market Strength Indicator for target exit
- 7) If MSI at or below target exit, cover
- 8) If a buy signal appears before target exit, cover

Buy Signals

Is Intermediate Buy Bottom > 8

Is All Clear > 2

Is Pep Indicator > 3.8%

Short to Intermediate Market Timer

IWM is the iShares Russell 2000 exchange traded fund

- IWM Price > IWM price 3 days ago
- IWM Price > IWM price 16 days ago
- IWM Price > IWM's 9 day exponential moving average (ema)
- IWM Price > IWM price 17 days ago of the 4 day ema
- IWM Volume > IWM volume 10 day ema (Long only)
- 29 day ema of Nasdaq advances/(Nasdaq advanced + Nasdaq declines) > 48%
- When all these are true, buy. For sell rules, the > sign is replaced with a < sign.
- Short to Intermediate Market Timer (SIMT) drives the buy and sell signals reviewed by the Tsunami Indicator

Rate of Decline Calculation

- Tsunami Indicator Rate of decline calculation needs to be > 190 to show stalling out action.
- A = number of days from top to sell signal.
- B = (Top value – Sell value) ÷ Top value.
- C = A ÷ B, with C > 190.
- For example, in 2002, Top value on 4/16/2002 = 52.15, Sell value on 5/6/2002 = 49.98.
- $(52.15 - 49.98) \div 52.15 = 2.17 \div 52.15 = 0.04161$.
- Days from top to sell signal = 14.
- $14 \div 0.04161 = 336.45$ which is > 190.

Market Strength Indicator

- The Market Strength Indicator is useful in determining if a **sell** signal is valid
- It is the sum of:
 - 21 day ema of Nasdaq Advances/(Advances + declines)
 - 21 day ema of Nasdaq New Highs/(New Highs + New Lows)
 - 21 day ema of Nasdaq Up Volume/(Up Volume + Down Volume)
 - Russell 2000 closing price / 21 day ema of Russell 2000 closing price
 - 25 / VIX (Volatility Index)
- To determine bear market, MSI needs to be < 4.50 at market peaks and < 3.80 at the sell signal

Long Term Market Strength Indicator

- The Market Strength Indicator is useful in determining a “safe” or “volatile” market
- It is the sum of:
 - 250 day ema of Nasdaq Advances/(Advances + declines)
 - 250 day ema of Nasdaq New Highs/(New Highs + New Lows)
 - 250 day ema of Nasdaq Up Volume/(Up Volume + Down Volume)
 - Russell 2000 closing price / 250 day ema of Russell 2000 closing price
 - 25 / 250 day ema of VIX
- Market “safe” when > 4.20 , “volatile” < 4.20

Market Momentum Indicator

- It is the sum of:
 - 21 day ema of Nasdaq Up Volume/(Up Volume + Down Volume)
 - Russell 2000 closing price / 21 day ema of Russell 2000 closing price

Pep Indicator

Pep Indicator is the Market Momentum Indicator subtracting its 8 day ema

All Clear Calculation

- Divide the number of Normalized New Lows by the number of Normalized New Highs on the date of the most recent buy signal
- If the division is > 2 , that means it is a major bottom of the market. All the investors have given up. This needs to be confirmed by the Pep Indicator with readings above 3.8%

Intermediate Buy Signal

- While a bear market is in progress, an intermediate buy signal may appear at key bottoms. Divide the number of Normalized New Lows at the very bottom of the market by the number of Normalized New Lows at the buy signal. If the division is 8 or more, then a intermediate buy signal is determined. This needs to be confirmed by the Pep Indicator with readings above 3.8%

Shortable Correction Timer

The Shortable Correction Timer is a variation of the Tsunami Indicator and determines larger corrections with the potential to hedge

- Short to Intermediate Market Timer gives candidate sell signal
- Normalized New Lows at sell signal > 60
- Rate of Decline < 190
- Number of New Lows at top > 30
- VIX < 20

A short position of 50% to 100% hedge or 5% to 10% put option can offset the decline in the equities. Subtract the Market Strength Indicator number at the sell signal by .50 to determine the target MSI reading at the end of the shorting period. The hedge should be covered then or when a buy signal is generated.

Summary of gains and losses generated by bear market and shortable correction actions

Indexes used for price are Russell 2000, IWM and S&P 500

Action is the action taken on the particular date, Sell, Hold, Ignore, Buy or Cover

Date is the Short to Intermediate Market Timer sell date or reversing date

Signal is the type of signal taken at the particular date

Price is the price on the date of the index used

Gain is how much savings was attained by sidestepping the decline

Negative results are if the market rises after the sell signal

Russell 2000 Values Used				
Action	Date	Signal	Price	Gain
Sell	9/8/1987	Tsunami	170.6	
Hold	10/1/1987	Pep < 3.8%		
Ignore	10/8/1987	Minor sell		
Cover	12/17/1987	All Clear/Pep > 3.8%	116.94	31.45%
Sell	4/23/1990	Tsunami	158.48	
Cover	5/11/1990	Pep > 3.8%	163.12	-2.93%
Sell	7/23/1990	Tsunami	162.88	
Cover	11/12/1990	All Clear Pep > 3.8%	123.23	24.34%
Sell	10/5/1992	Acc NNL	186.5	
Cover	10/19/1992	Pep > 3.8%	193.62	-3.82%
Hedge	3/12/1997	Shortable Correction	364.49	
Cover	4/2/1997	MSI Target Achieved	337.79	7.33%
Sell	7/23/1998	NNL > 50	442.33	
Cover	10/23/1998	All Clear Pep > 3.8%	367.05	17.02%
Sell	3/20/2000	NNL > 50	549.2	
Cover	6/2/2000	Intermediate Buy Pep > 3.8%	513.03	6.59%
Sell IB	7/25/2000	Sell Signal Terminates IB	514.33	0.25%

IWM Values Used

Sell	9/20/2000	Tsunami	51.91	
Cover	1/10/2001	Intermediate Buy Pep > 3.8%	47.5938	8.31%
Sell	2/16/2001	Tsunami	49.605	4.23%
Cover	4/18/2001	Intermediate Buy Pep > 3.8%	46.675	5.91%
Sell	6/14/2001	Tsunami	49.08	5.15%
Cover	10/11/2001	Intermediate Buy Pep > 3.8%	42.675	13.05%
Sell	2/4/2002	Tsunami	46.7	9.43%
Cover	3/1/2002	Pep > 3.8%	47.75	-2.25%
Sell	5/6/2002	Tsunami	49.98	4.67%
Cover	10/25/2002	All Clear Pep > 3.8%	37.22	25.53%
Hedge	7/8/2004	Shortable Correction	55.95	
Cover	8/6/2004	MSI Target Achieved	51.865	7.30%
Hedge	3/9/2005	Shortable Correction	62.85	
Cover	4/14/2005	MSI Target Achieved	58.625	6.72%
Hedge	5/11/2006	Shortable Correction	75.31	
Cover	5/17/2006	MSI Target Achieved	71.95	4.46%
Sell	10/19/2007	Chart Formation	79.09	
Cover	4/18/2008	Intermediate Buy Pep > 3.8%	71.67	9.38%
Sell	6/10/2008	NNL > 50	73.14	2.05%
Cover	7/23/2008	Intermediate Buy Pep > 3.8%	71.93	1.65%
Sell	9/5/2008	Tsunami	71.64	-0.40%
Cover	12/12/2008	All Clear Pep < 3.8% Not Long	46.89	34.55%
Sell	1/14/2009	Accelerating NNL	45.24	
Cover	3/18/2009	Pep > 3.8% AC IB	41.85	7.49%
Sell	5/6/2010	Accelerating NNL	67.3	
Cover	7/23/2010	Pep > 3.8%	64.98	3.45%
Hedge	5/16/2011	Shortable Correction	82.27	
Cover	5/31/2011	Buy Signal Terminates	84.84	-3.12%
Hedge	6/3/2011	Shortable Correction	80.88	
Cover	6/15/2011	MSI Target Achieved	78.03	3.52%
Sell	7/27/2011	Tsunami, Series of Tops	79.97	
Cover	10/18/2011	All Clear, IB, Pep > 3.8%	70.81	11.45%

Sell	7/24/2012	Tsunami	76.65	
Cover	8/7/2012	Pep > 3.8%	79.94	-4.29%
Sell	6/29/2015	Shortable Correction	124.28	
Cover	8/21/2015	MSI Target Achieved	115.03	7.44%
Sell	11/13/2015	NNL > 50	114.07	
Hold	11/18/2015	All Clear Pep < 3.8%	116.55	
Ignore	12/9/2015	Shortable Correction, NNL > 50	114.08	
Cover	3/1/2016	Pep > 3.8%	104.94	8.00%
		Long Term S&P signals		S&P 500 values used
Sell	7/4/1981	Long Term S&P Timer Sell	128.64	
Buy	9/11/1982	Long Term S&P Timer Buy	120.97	5.96%
Sell	2/4/1984	Long Term S&P Timer Sell	160.91	
Buy	8/18/1984	Long Term S&P Timer Buy	164.14	-2.01%
Sell	8/18/1990	Long Term S&P Timer Sell	327.83	
Buy	2/2/1991	Long Term S&P Timer Buy	343.05	-4.64%
Sell	12/23/2000	Long Term S&P Timer Sell	1305.97	
Cover	5/3/2003	Long Term S&P Timer Buy	930.08	28.78%
Sell	11/24/2007	Long Term S&P Timer Sell	1440.7	
Cover	7/25/2009	Long Term S&P Timer Buy	979.26	32.03%
Sell	12/18/2015	Long Term S&P Timer Sell	2005.55	
Buy	5/27/2016	Long Term S&P Timer Buy	2099.06	-4.66%
				Overall Savings
		Results of Long Term S&P Timer		60.50%
		Results of Tsunami, NNL > 50, Acc NL, Series		642.45%
		Results of Shortable Corrections		38.34%

