

CAPITAL GROWTH LETTER

“Prudence is what makes someone a great commodities trader - the capacity to face reality squarely in the eye without allowing emotion or ego to get in the way. It's what is needed by every quarterback or battlefield general.” John Ortberg

The Markets

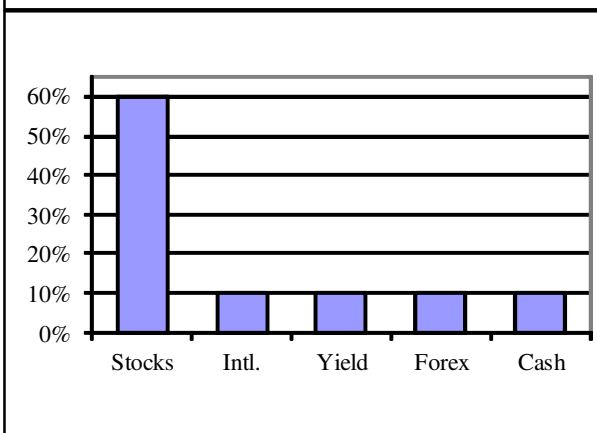
There are times when I want to kick myself, usually for forgetting the obvious. In the Monday Hotline from May 16th I described a “W bottom” developing in stocks as a classic in miniature. About three-quarters of the way through the slide deck for my talk on pattern recognition with Bollinger Bands is an amazingly similar slide. In fact, there are two slides; the first shows a W forming after a small pullback from a high, the second reveals the failure of that set-up. The point of the slides is that you can't have a real W bottom without a real decline leading into it. Technicians have often had similar discussions about Head and Shoulders patterns, a pattern which I have generalized as a subset of Three Pushes to a High in Bollinger Band terms. The controversy was whether one could have a Head and Shoulders pattern without the requisite volume pattern. The answer is, of course, no. A proper Head and Shoulders pattern requires proper volume confirmation, just as a W requires a proper decline. That isn't to say that a price pattern in the form of a Head and Shoulders pattern doesn't contain interesting/actionable information, it may well. It is to say that you can't apply Head and Shoulders forecasting rules without the whole pattern in place. And so it is with Ms and Ws, which offer lots of forecasting information; W bottoms are a special case with their own rules that need to be followed. It seems that I need to pay more attention to my own advice.

All that aside, we think that we are in a short-term correction, the motive force of which is once again anticipation of the Federal Reserve Board tightening, this time at its June 14-15 meeting. March, June, September and December are the 'big' meetings, where economic projections are revised and the chair holds a press conference. So, one has to allow for the possibility that the market will hold itself hostage to the June meeting and the current short-term correction could stretch out a bit. However, looking at internal market data we see no reason to expect or fear an emerging bear market. The Advance-Decline Line remains strong and new 52-week

The Investing Environment

Monetary	Model	Current
Fed Model	Neutral	
Yield Curve	Positive	1.39
Money Supply	Positive	6.6%
Sentiment	Model	Current
Net Bulls	Neutral	18.5
Options	Neutral	1.07
Valuation (S&P 500)	Last Signal	Current
Yield		2.22%
P/E Ratio		23.65
Current Trends	Short Term	Long Term
Stocks	Up	Down to Flat
Interest Rates	Down	Down
Energy	Up	Flat to Up
Gold	Up to Flat	Up
Commodities	Up	Flat to Up
Dollar	Down	Down

Asset Allocations



lows are nearly nonexistent. Participation remains good and group and sector rotation are relatively normal and healthy. In short, we see little of the types of warnings we would expect to see if a meaningful decline were in the offing. However, the lack of progress is worrisome, so we are being more vigilant than we would be under normal circumstances. (We did check the naughtily named Hindenburg and Titanic indicators, but there have been no signals from them.)

The oil price is heading higher while the energy stocks are staging a nice, orderly pullback. This is a forecast for weaker oil unless this divergence is corrected quickly. That's a problem for equities in general, as common stocks have been taking clues from the crude.

Gold is in the opposite mode; the stocks are doing a bit better than the bullion suggesting more to come from the rally.

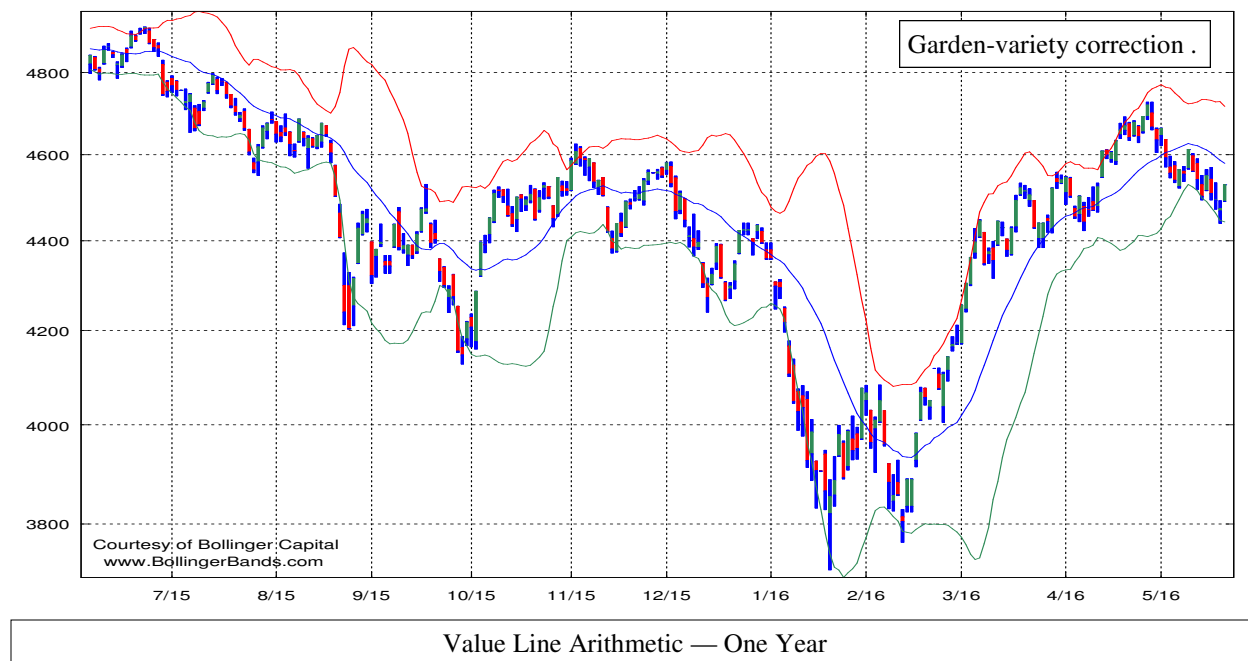
After a long, multi-leg pullback that ran eight percent for the dollar index, we have seen a bounce and overcome the first and most obvious resistance level. The accelerated trend line (see the chart on page 10) lies just ahead and will shortly be coincident with the upper Bollinger Band. That juncture should be seen as a right-of-passage for the rally.

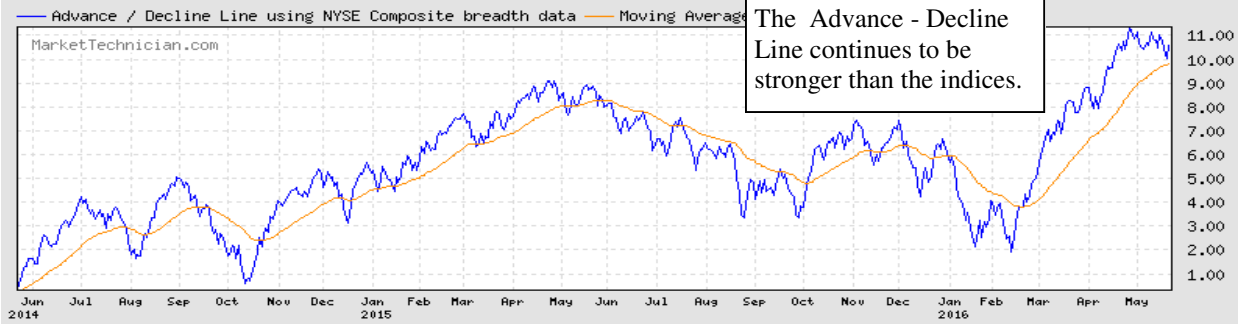
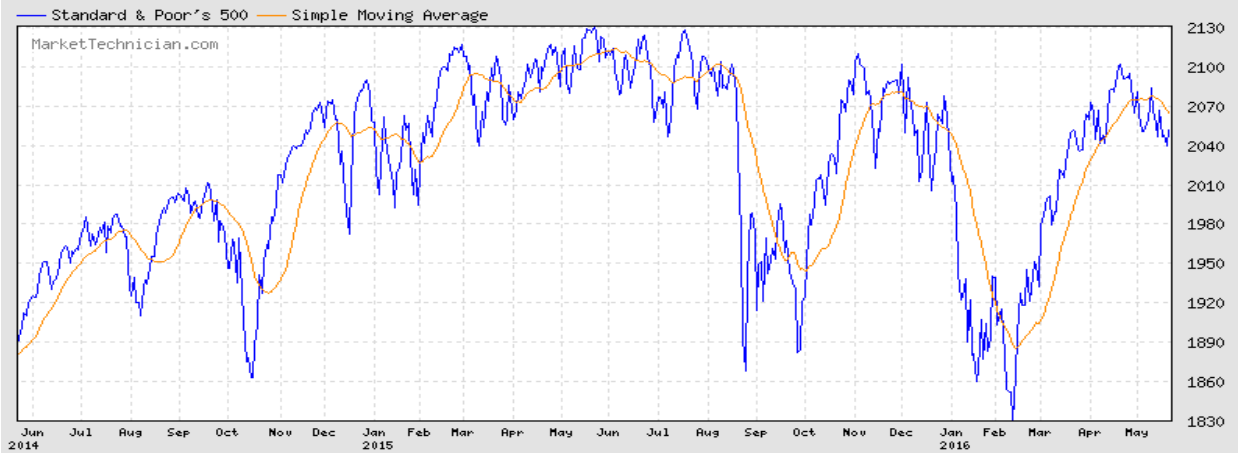
I found this month's quote on BrainyQuote.com. I have no idea who John Ortberg is, the only reference I could dig up is to an evangelical preacher, which must be wrong, but I like the quote and find it topical as commodities are starting to stir.

In my early days in the business commodity trading was an important topic, today hardly anyone seems interested. I believe that we are emerging from a long-term bear market in commodities, or weak cycle, into what some technicians refer to as a strong cycle. This won't happen overnight, but I do think that we have seen the lows for most commodities and that in coming years systems that bias themselves to the long side will do better than systems that are neutral or negatively biased. As I have opined before, deflation is the fear, but inflation is the future. We'll no doubt be exploring this topic thoroughly in coming years.

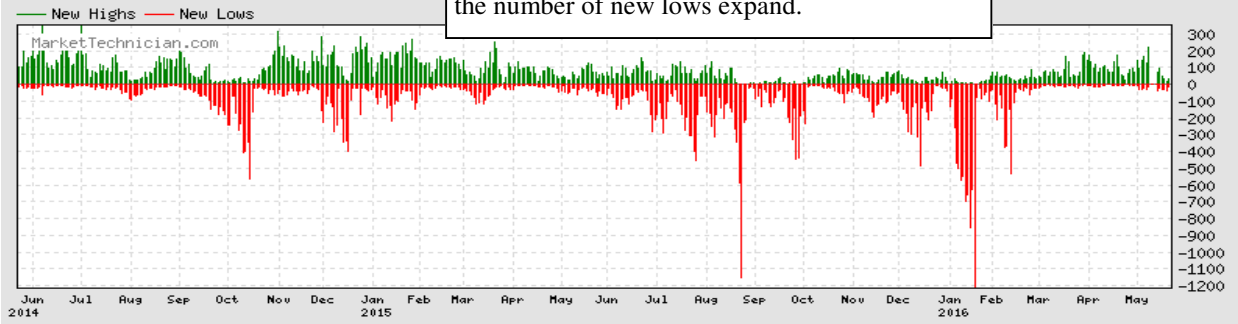
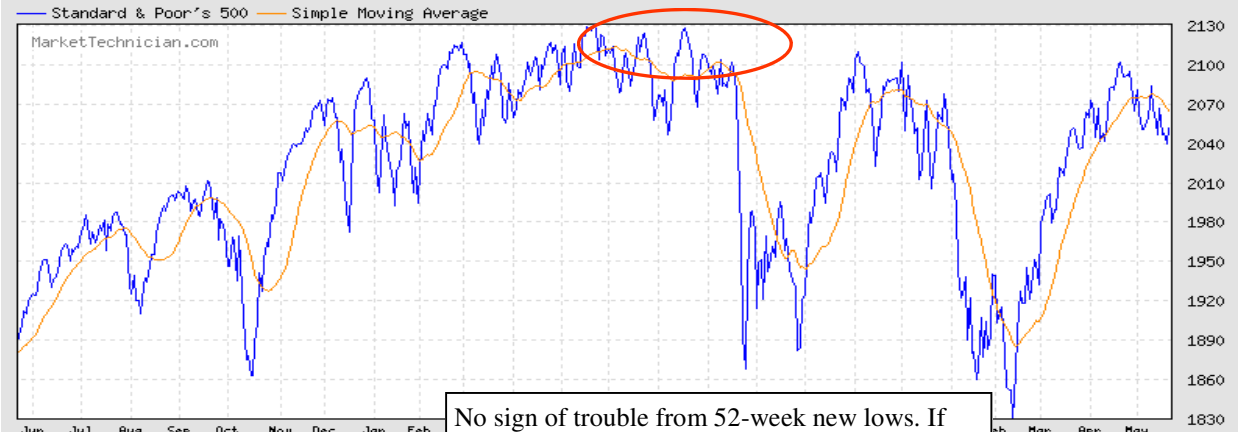
Trading Visualization

Last month I introduced some ideas about visualizing trading statistics. Usually trading approaches are analyzed with numbers, summary statistics, like the Profit Factor, the Winning Percentage, the Payout Ratio and similar measures. Occasionally more sophisticated measures such as semi-variance are used. All of that is a big improvement on the old days when anecdotal information reigned, but those numbers can hide a lot of vital information and, more importantly, they make assumptions about distributions that don't hold for markets. Perhaps the biggest advance in trading over the past few decades has been an emphasis on LOOKING at the equity curve for a trading system. The equity curve is simply the value of an account in which a trading system is the sole active factor. A smooth equity curve has become a sort of Holy Grail of trading in many circles. While I do agree that the equity curve is very important,

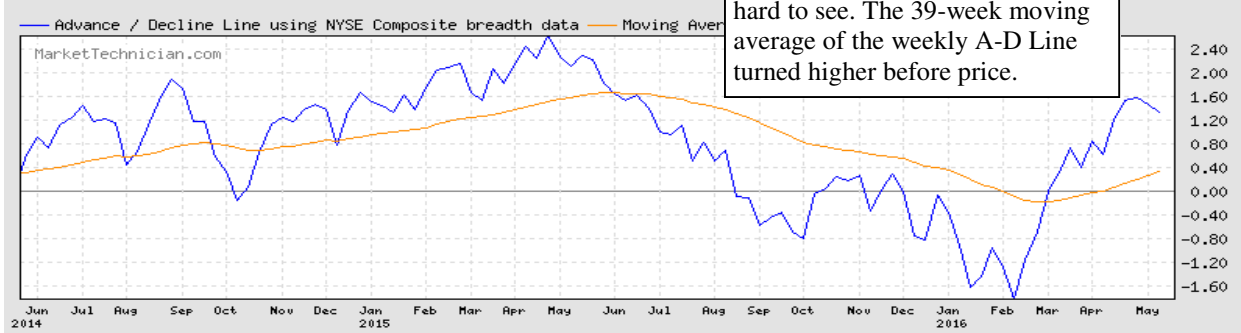
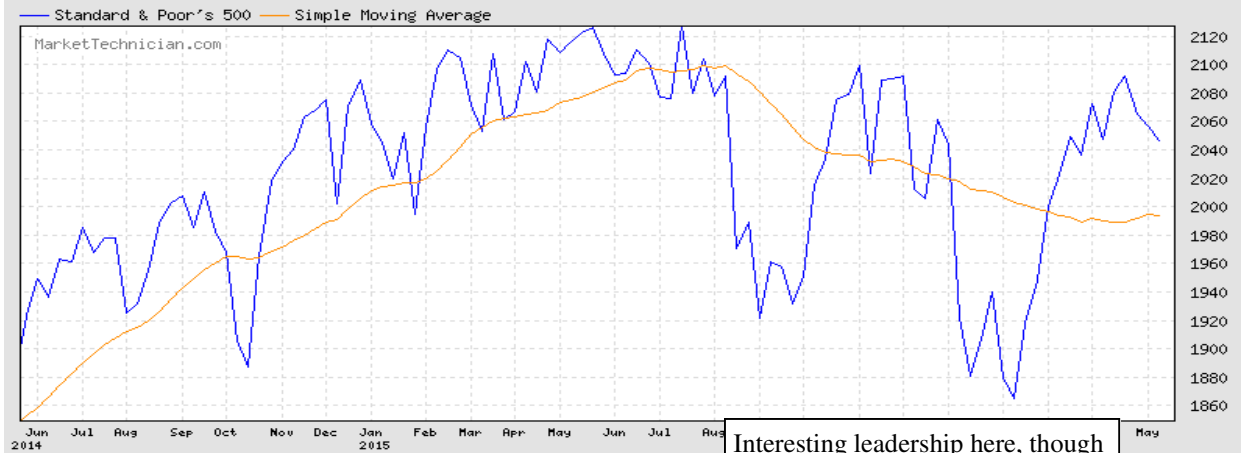




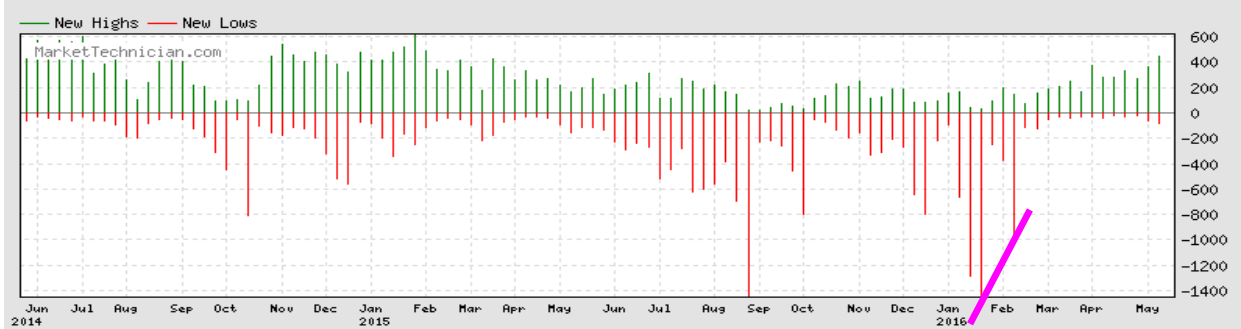
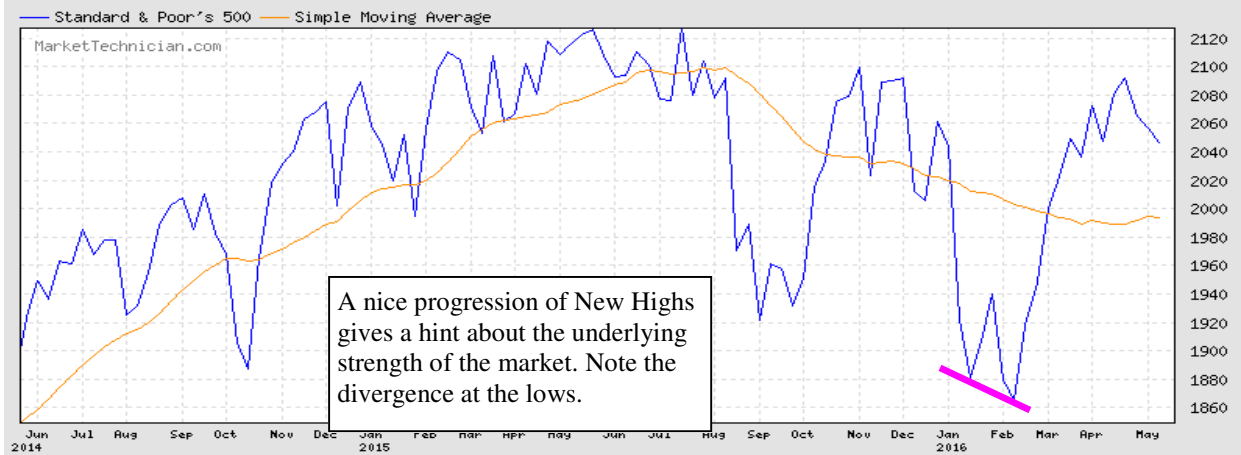
S&P 500 and NYSE Advance - Decline Line — Daily — Two Years



S&P 500 and NYSE New Highs / New Lows Histogram — Daily — Two Years



S&P 500 and NYSE Advance - Decline Line — Weekly — Two Years



S&P 500 and NYSE New Highs / New Lows Histogram — Weekly — Two Years



German Stocks — DAX — Daily

and a marked improvement over a table of summary stats, it is not the be-all and end-all of trading analysis; we can do better, a lot better.

I started to code last month's ideas so I could produce some proper illustrations and have gotten to first base. This month we present four graphs portraying all trades, returns versus time and the equity curve (log and linear) along with some simple summary stats for a very simple short-term trend following system, the 21-period simple moving average. Why the 21-day sma? Because it was our original definition of the direction of the intermedi-

ate-term trend and the original base for the Bollinger Bands. The data used is the S&P 500 Index from 1950 through 2015, 65 years. The system is simplicity itself: Buy when the average turns higher, sell when it turns lower; long trades only, no stops, no profit targets, fully invested, no interest on cash.

I coded our first example in Python using PyScripter as the development environment and matplotlib to generate the graphics. These are all open source, freely available programs.



Chinese Stocks — SHG — daily

<https://www.python.org/>

<https://sourceforge.net/projects/pyscripter/>

<http://matplotlib.org/>

The program is about 200 lines of code plus a lot of comments and boilerplate. It could have been shorter, but I wrote it with an emphasis on readability rather than concision. Next month I will expand it to handle a portfolio of systems so we can explore some of my original ideas in greater depth. For the moment the four views for the program are pages 14 and 15 along with annotations to explain what we are doing. The summary stats are presented below. I feel that this approach has tremendous potential to help traders and plan to continue exploring it. If you are interested, drop me note and I'll send the code as soon as I have it cleaned up. I am considering placing it on GitHub.

There were 608 trades.
There were 243 winners.
There were 365 losers.
The average win was 3.45%.
The average loss was -1.23%.
The total gain was 3247.91%.
The annual gain was 6.24%.

An Inquiry

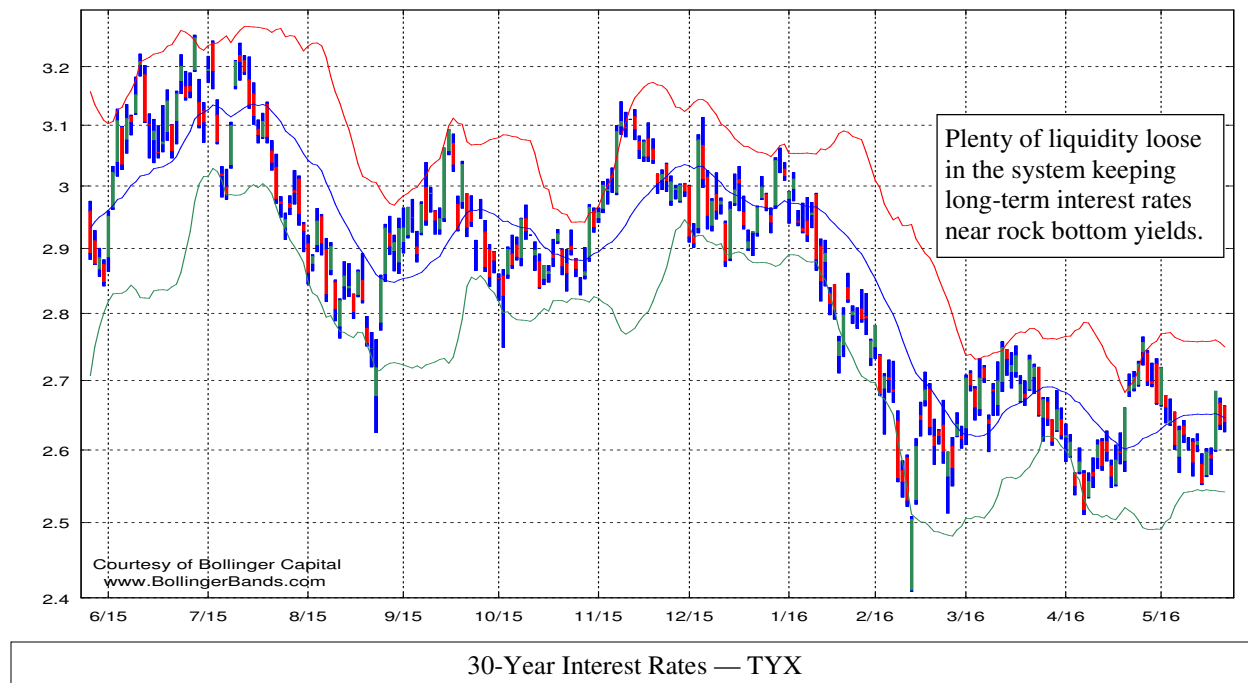
A reader asked a question via the Bollinger Band Bulletin Board that I thought would best be answered here.

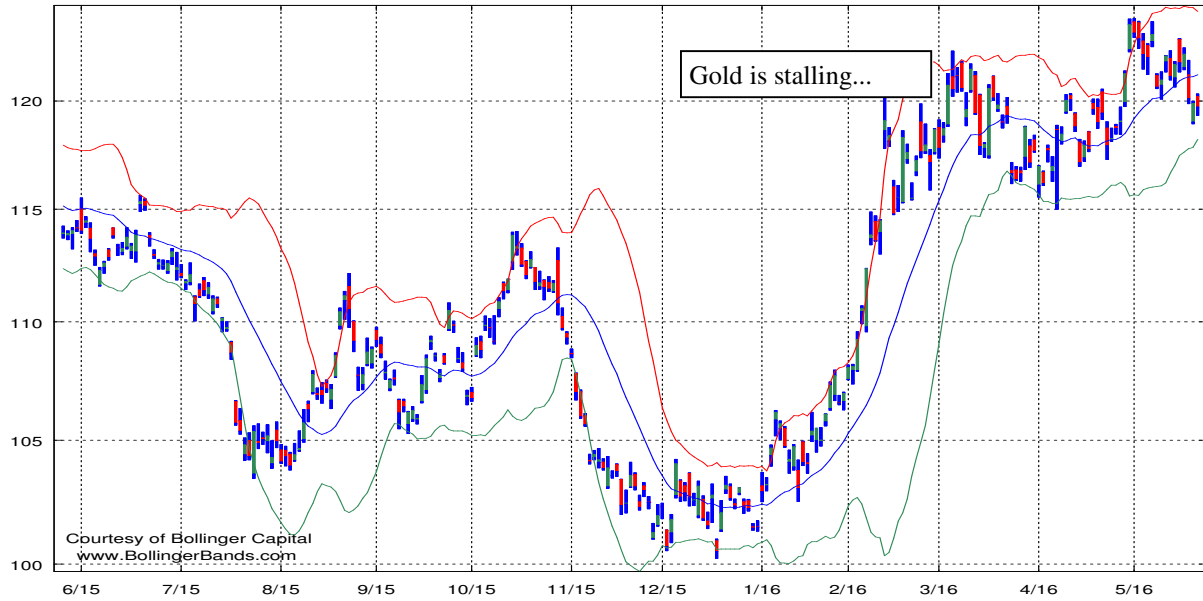
You can access the BBB here: <http://www.bollingerbands.com/bbandsforum/> There is a private section for *Capital Growth Letter* subscribers as well as open sections for discussion of various trading and investment ideas. Your access info for the CGL section is the same as your newsletter log-in. Here is his question:

“I am trying to develop a system for going long or short when there is a "flare" of the upper and lower bands. After watching your volume video and reading your book I understand the significance of a "flare" but am wondering if you can provide some insight into how to gauge (using %b, bandwidth and volume) the likelihood that the "flare" will continue more than the initial 1 or 2 days? Really what I am trying to do is narrow down my list of stocks even further from simply saying is a "flare" present?

Also, how common are head fakes immediately after a "flare" has started?”

The 'flare' refers to the situation where, usually after a squeeze or at least after a period of compression, where the BandWidth has narrowed and volatility expands so rapidly that the Bollinger Band opposite the new trend turns away from the average. That is to say when in an up move the lower band turns down, or in a down move the upper band turns up. Philippe Cahen, the French





Gold ETF — GLD — One Year

technician with a deep interest in Bollinger Bands, has written extensively on this topic. What you are seeing is an impulse move that is so strong that the value of the standard deviation calculation that drives the width of the Bollinger Bands is rising faster than the absolute value of the change of the smoothing that is being used for the middle Bollinger Band.

Our reader's question boils down to how to recognize the beginning of a trend, or how to differentiate between a short-term impulse and something more substantial. In its many guises this is the most oft-asked question about

Bollinger Band trading. "How do I know which way a Squeeze will resolve?" "How can I tell if there is going to be a Head Fake?" "What is the target for a Squeeze?" "What happens if a Squeeze goes on for a long time?" These are all substantial and meaningful questions and they all revolve around one central idea; the volatility expansion. Unfortunately there is no simple answer. If there was you would own the exchange as we used to say. However, there are a number of helpful ideas, the first of which involves the supply/demand indicators. These are mostly volume indicators and they can give meaningful clues as to what is going to happen. The



Gold Stock Index — HUI — One Year

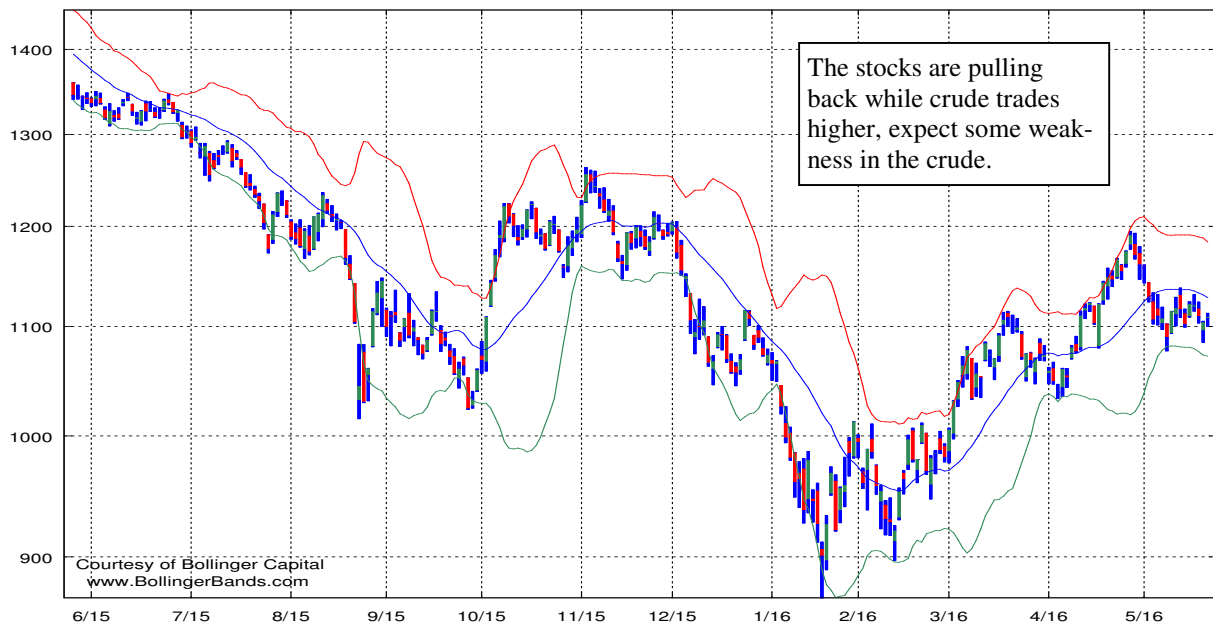


Crude Oil ETF — USO — One Year

open forms of these indicators are rarely looked at these days, yet I find them quite helpful in this regard. The second involves the pattern of %b, during the Squeeze and the immediately prior period, which often traces a picture of the future direction of price. The next is price action itself, for instance a sharp reversal immediately after an impulse move in the wake of a Squeeze is the single best indicator of a Head Fake we have. A third method is the concept I originally started using, checking a higher time frame. If you are working on an hourly chart, check the daily. Working on a daily? Check the

weekly. Sometimes the oldies but goodies like higher time frames are actually the best methods. Finally, stepping back even a bit farther, many traditional technical analysis techniques like the analysis of flags and penants à la Edwards and Magee, Schabacker and Wyckoff can be very helpful, but they require quite a bit of study and close reading of the masters' works. Of course, I think such study is work that will pay in spades far into the future.

Finally, our reader asks about Head Fakes explicitly. A



Oil Stock Index — XOI — One Year

Head Fake is a strong move in the wake of a Squeeze that is immediately and substantially reversed leading to a sustained move in the opposite direction. I can't say for sure as I have never figured out how to test it rigorously, but I would guess from experience that somewhere between a quarter and a third of all impulse moves in the wake of Squeezes are quickly reversed. Of those I would guess that more than half lead to sustained new trends.

What is not asked is even more interesting, so I add this. In a flare what you want to watch is the band on the opposite side of the primary move. When it reverses and turns in the direction of the trend it is highly likely that the primary impulse is at an end. That does not necessarily mean there will be a reversal; it might just usher in a pause to refresh, or a correction to the excesses of the move.

Reading Rack I

Perry Kaufman, whom I have known for a long while, is out with a new book: "A Guide to Creating a Successful Algorithmic Trading Strategy". He is the author of "Commodity Trading Systems and Methods", 1978, Wiley, which was the first book I read on the subject. That book has gone through five editions and several names, growing from 404 pages to 1,232 pages in the process. I prefer the early editions to the later, bloated editions, in exactly the same way I prefer the fifth edition (1966) of Edwards and Magee's classic "Technical Analysis of Stock Trends" to the later editions. I understand that publishers are anxious to have their authors

create new editions of successful works to stimulate sales, but in my view little that is genuinely new is published in succeeding editions. In many cases the books become bloated and errors inevitably creep in as the size rockets higher. To wit, I found and reported several errors in the first couple of hundred pages of the fourth edition of "Trading Systems..." when it was first published. Such problems are inevitable in books of that length dealing with extremely complex subject matter, often subject matter that book editors are poorly equipped to handle. So I was extremely pleased when his new book arrived and turned out to be a small book both in physical size, five by seven inches, and in length, at a modest 192 pages.

(My publisher has been dunning me for years to write a second edition of "Bollinger on Bollinger Bands". I have resisted as the book is exactly what I wanted it to be and says exactly what I wanted it to say. I am considering BoBB Part II to take up new material, but I see no reason to mess with the original edition.)

One of the ideas Perry mentions in his new work is efficiency. Traders already know this concept via the old expression "as the crow flies". Efficiency compares how far the actual trip to get from point a to point b took versus the distance as the crow flies. If you have to drive 150 miles to go 100 miles as the crow flies, your efficiency ratio is 1.5. I first learned that concept as it applies to trading as "the ink". In the days when we kept charts by hand we would talk about how much ink was placed on the chart to get from one price level to another. In a strongly trending market the amount of ink



Commodity ETF — DBC — One Year

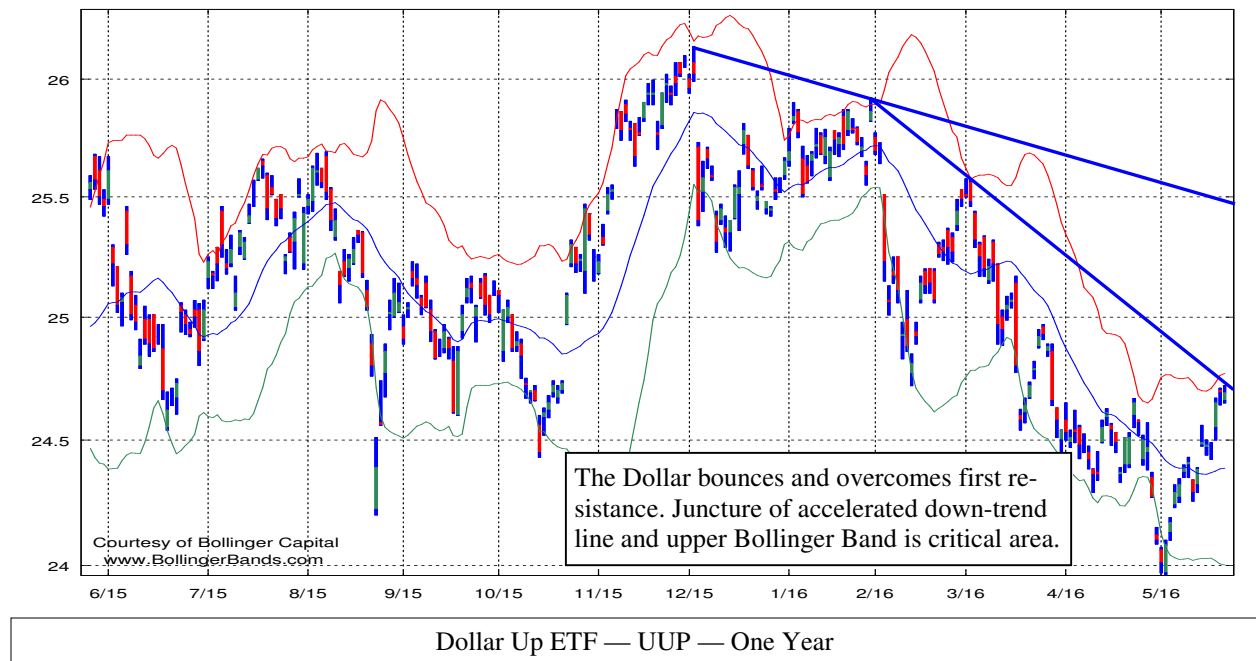
used would be small, in a meandering market a lot more ink would be used. We present tools to tackle this idea on our web sites as "Trending versus Trading Range" indicators. There are five such indicators on our sites; specifically relevant is E. W. Dreiss' Choppiness Index, which explicitly measures the ink as the distance traversed versus the progress made. This is an interesting topic that has drifted out of mainstream thinking these days, but is well worth exploration.

Perry touches on a lot of ideas in his book. One thing that I thought was missing was an appropriate (read heavy) emphasis on 'first principles'. I learned the concept as such from Robert Pierce, but practiced the idea all my life. Take my Put Volume Indicator, for example. (Put options are bets on the market declining.) I theorized that a surge in put buying would mark a market bottom as it indicated capitulation and a willingness to buy insurance against a decline at any cost. I further theorized that such a surge would be marked by total CBOE put option volume more than doubling its ten-day simple moving average. I tested that idea and it worked, so I deployed it as it was without any further testing and no optimization. The result is an indicator that has worked for 30 years and works to this day with the latest signal coming in the leg down for stocks in January.

Another idea Perry discusses is robustness and here we part ways. Perry's primary definition of robustness is that one system must be able to trade all things. I find the idea that a single trading system should be able to successfully trade securities with such widely varying

characteristics as Eurodollar futures, Gold stocks, SPY and VIX absurd. Some of my systems, such as Ice Breaker, are capable of trading a wide variety of vehicles, but some are purpose built to trade a single thing. I do strongly agree with him about the importance of robustness, but I use a different definition; insensitivity to small changes in parameters. Another way of saying that is that a robust system is a system whose output changes little when perturbed.

Perry is clearly a long-term trend follower at heart, recommending approaches that many would find hard to follow as they involve sustained and/or large draw downs. In addition, these approaches have been substantially degraded by a changing market environment in recent years. As evidence, we have seen many of the best known commodity trading advisors, most of whom were trend followers, close shop as a result; John Henry for example. One clue as to why Perry may be a long-term trend follower may be when he came into the business, the 1970s. In those days trading costs were high, very high. Commissions could easily be up to \$50 each way or \$75 for a 'round turn'. In addition, slippage was much larger than today, delays in getting the orders to the floor, wide spreads, front running and other problems all conspired to make trading expensive. No interest on cash balances in commodity accounts unless T-Bills were posted as margin was another factor. In such an enthronement short-term trading is MUCH tougher than long-term trend following. Today we enjoy vastly reduced commissions, greatly improved market access, much tighter spreads and so forth, so the popular emphasis has shifted to short-term trading. I have always



GroupPower

Sector Ranks

Statistics

Name	Momentum			\$\$ Flow	Breadth	
	Short	Inter.	Long			
Financial	0.67	0.72	0.48	60.0	10-day Open Arms Index	1.17
Technology	0.11	0.07	0.11	54.4	10-day Open Adv / Dec	0.86
Media	-0.02	0.49	0.47	36.8	High-Low Index	45.52
Energy	-0.03	0.76	0.43	52.8	High Low Logic Index	0.49
NASDAQ Comp	-0.05	-0.05	-0.07	N/A	Percent Above Average	
Market ETFs	-0.08	0.30	0.34	80.8	Percent above 10-day moving average	39.90
Business	-0.15	0.19	0.17	56.0	Percent above 50-day moving average	42.36
S&P 500	-0.17	0.13	0.22	N/A	Percent above 200-day moving average	61.08
Consumer Noncyclical	-0.29	0.22	0.42	56.0	New Highs and Lows	
Healthcare	-0.46	-0.15	-0.07	56.0	13-week new highs	2
Industry	-0.47	0.34	0.65	60.8	13-week new lows	3
Yield	-0.50	0.24	0.54	80.8	26-week new highs	3
Telecommunications	-0.54	-0.16	0.00	54.4	26-week new lows	0
International	-0.54	-0.19	-0.16	50.4	52-week new highs	2
Basic Materials	-0.89	0.66	0.97	49.6	52-week new lows	1
Transportation	-1.00	-0.11	-0.09	44.8		
Consumer Cyclical	-1.46	-1.18	-1.02	44.8		

Early Warnings

GroupPower

Positive Warnings

Negative Warnings

These tables derived from John Bollinger's GroupPower, a daily analytical service. There are 15 market sectors, 203 industry groups and 5,460 stocks in the GroupPower structure. 2,428 stocks are categorized into industry groups, 3,032 are currently out of groups. The sectors and groups are formed using Rational Analysis, a combination of technical and fundamental tools. In order for a stock to be in a group it must exhibit both a business fit and statistical fit.

www.GroupPower.com

GP is also available from eSignal (800-SMARKET).

A guide to using GroupPower and a listing of the GroupPower structure is available to subscribers.

Short = Short-Term Front-Weighted Momentum, 22-day horizon.

Int = Intermediate-Term Front-Weighted Momentum, 62-day horizon.

Long = Long-Term Front-Weighted Momentum, 125-day horizon

-5, -10, -20 = 5, 10 and 20 days ago.

\$\$ Flow = Money Flow Persistency. A measure of money flow designed to look out six months.

Energy Market Dist
Pipelines
Farm Products
Internet Consumers
Banks Southwest

Lodging
Retail Drug
Software Health

Strongest — GroupPower Ranking — Weakest

Group Name	Momentum			Money Flow	In/Out Gear	Group Name	Momentum			Money Flow	In/Out Gear
	Short	Inter	Long				Short	Inter	Long		
Farm Products	3.48	2.83	1.94	52.8	0.68	Communication Tech	-0.93	-0.76	-0.80	43.2	0.49
Australia NZ	2.41	0.73	0.08	63.2	-0.42	Retail Autoparts	-0.94	-0.55	0.05	72.0	0.42
Pipelines	2.10	2.97	2.13	76.8	0.65	Industrial Diverse	-0.96	-0.16	0.20	57.6	0.96
Energy Market Dist	1.93	2.76	2.05	28.0	0.65	Footwear	-0.96	-1.13	-1.28	46.4	-0.28
Gas Producers	1.83	2.25	0.91	25.6	0.75	Investment Firms	-0.98	-0.52	-0.48	45.6	0.86
Banks Southwest	1.69	1.73	1.15	55.2	0.65	Restaurants	-1.00	-0.57	-0.35	55.2	0.23
Food Retailers	1.34	0.93	0.16	28.0	-0.17	France	-1.01	-1.04	-1.51	20.0	0.67
Insurance Life	1.29	1.50	1.01	51.2	0.69	Railroads	-1.04	-0.40	-0.31	68.8	0.87
IT Security	1.26	1.09	0.75	40.8	0.67	Biotech	-1.05	-1.00	0.32	14.4	0.53
Banks Southeast	1.19	1.25	0.94	63.2	0.68	Household Durables	-1.07	0.05	0.59	64.8	0.89
Brokers	1.18	0.90	0.49	60.0	0.78	Mexico	-1.08	-0.67	-0.12	53.6	0.57
Internet Info Prov	1.13	1.93	1.91	68.0	0.67	ETF Emerging Markets	-1.10	-0.51	-0.38	52.8	0.89
Banks Midwest	1.06	1.22	0.92	58.4	0.72	Agricultural Machine	-1.10	-0.49	-0.09	76.8	0.50
Software Business	1.05	1.43	1.17	64.8	0.73	Clothing and Fabrics	-1.14	-0.96	-0.80	52.8	0.03
Research Services	1.03	1.30	1.19	77.6	0.81	Retail Discount	-1.14	-0.68	-0.21	78.4	0.59
ETF Energy	0.95	1.57	0.88	63.2	0.73	Hospitals	-1.15	-0.58	-0.71	59.2	0.82
Publishing	0.94	1.36	1.21	72.8	0.83	Retail Electronics	-1.15	-1.35	-1.90	40.8	-0.05
Market Exchanges	0.88	0.90	0.91	76.0	0.17	REIT Retail	-1.16	-0.37	0.06	92.0	0.68
Internet Consumers	0.88	0.84	0.41	51.2	0.78	Pacific	-1.17	-1.14	-1.03	60.8	0.04
Management Services	0.86	1.34	1.20	69.6	0.73	China Mainland	-1.27	-1.02	-0.85	60.8	0.69
Semiconductor Equip	0.85	0.61	0.71	64.8	0.82	Software Health	-1.33	-0.96	-0.70	84.0	0.53
Contract Elec Manu	0.81	0.66	0.53	68.0	0.41	Home Furnishings	-1.34	-1.15	-1.13	40.8	0.60
Educational Services	0.78	1.24	1.05	28.8	0.61	Holland	-1.36	-0.81	-0.76	66.4	0.63
Banks Pacific	0.73	0.65	0.37	62.4	0.84	Vehicle Other	-1.37	0.59	0.99	64.8	0.79
Fertilizer	0.72	0.33	-0.72	55.2	0.05	Retail Drug	-1.41	-0.82	-0.50	61.6	0.51
Semiconductor	0.69	0.28	0.30	56.0	0.30	Advertising Marketing	-1.46	-1.00	-0.87	70.4	0.39
Household Products	0.64	1.53	1.78	90.4	0.59	Oil Services	-1.50	-0.52	-0.71	39.2	0.66
Banks Northeast	0.64	0.56	0.39	68.8	0.75	Telephone	-1.61	-0.65	-0.02	58.4	0.54
Communication Service	0.62	0.59	0.19	57.6	0.53	Meat and Dairy	-1.63	-0.82	0.05	79.2	-0.62
Software Dev Sys	0.58	0.69	0.60	40.8	0.95	Hong Kong	-1.65	-1.18	-0.96	53.6	0.55
Insurance Prop Cas	0.58	0.48	0.35	63.2	0.69	Personal Care	-1.67	-0.52	0.06	48.8	0.94
Commercial Services	0.54	0.93	1.12	76.8	0.85	Recreation Products	-1.76	-1.50	-1.36	51.2	-0.19
United Kingdom	0.54	0.32	-0.13	69.6	0.77	Casinos	-1.85	-1.06	-0.47	60.8	0.76
ETF Finance	0.54	0.67	0.43	67.2	0.82	Metals Non Ferrous	-1.95	0.10	1.11	42.4	0.88
Software Multimedia	0.52	0.86	1.07	73.6	0.43	Coal	-2.03	-0.63	-3.09	32.8	0.30
Aerospace Defense	0.51	0.99	0.94	73.6	0.81	Gaming Equipment	-2.07	-0.93	-0.41	56.8	0.72
Insurance Brokers	0.50	1.14	1.39	95.2	0.80	Comps Parts	-2.07	-1.74	-1.29	44.0	0.25
Comps Data Storage	0.50	-1.52	-2.57	28.8	-0.53	Lodging	-2.13	-1.26	-0.98	48.0	0.58
Cement	0.49	1.57	1.71	66.4	0.88	Brazil	-2.15	-0.07	0.83	60.8	0.90
Banks Mid Atlantic	0.48	0.48	0.42	64.0	0.66	Drug Delivery System	-2.25	-2.31	-2.00	57.6	0.52
Elec Components	0.48	0.53	0.77	58.4	0.92	REIT Lodging	-2.64	-1.52	-1.36	60.8	0.43
Pollution Waste Mgt	0.46	0.71	0.92	88.0	0.79	Retail Jewelry	-2.72	-2.72	-2.59	40.8	-0.16
Air Freight Couriers	0.45	0.79	0.88	54.4	0.89	Metal Fabricators	-2.79	-0.96	-0.08	57.6	0.83
Building Materials	0.43	1.12	1.31	64.0	0.91	Mining Diversified	-2.86	-0.97	-0.74	52.0	0.74
REIT Mortgage	0.42	0.94	0.83	65.6	0.54	Solar Energy	-2.93	-4.23	-4.48	21.6	-0.62
ETF Technology	0.39	0.27	0.23	64.0	0.79	Retail Apparel	-3.01	-3.02	-2.59	40.0	-0.05
Software Engineer Sci	0.39	0.58	0.53	65.6	0.90	Steel	-3.05	-0.70	0.68	53.6	0.89
Movies Studios	0.38	1.30	1.17	59.2	0.36	Oil Producers	-3.22	-1.28	-1.50	16.0	0.51
Gas Companies	0.35	1.19	1.51	80.0	0.80	Dry Bulk Shippers	-4.01	-2.39	-3.19	21.6	0.62
Financial Services	0.29	0.94	0.58	51.2	0.78	Retail Broadline	-4.08	-4.45	-3.88	24.0	-0.36
Banks Major	0.29	0.30	-0.07	51.2	0.63	Retail Office Supplies	-6.27	-5.09	-4.11	40.8	0.41
Textiles	0.28	0.10	-0.50	61.6	-0.10						

Sector Selector ETF Portfolios (Experimental)

Exp. ETF Portfolios	Symbol	Date	Purchase Price	Current Price	Dividends	Return	Rank
		Selected	Price	Price			
Style							(# in 21)
S&P Mid-Cap Value	IJJ	3/4/2016	119.91	123.77	0.52	3.66%	6
Russell Mid-Cap Valu	IWS	4/11/2016	70.61	71.85	0.00	1.76%	1
S&P Mid-Cap	IJH	4/18/2016	147.36	144.92	0.00	-1.65%	7
International							(# in 24)
Brazil	EWZ	3/4/2016	24.84	26.86	0.00	8.13%	3
Russia	RSX	4/8/2016	16.85	16.74	0.00	-0.65%	5
Canada	EWC	5/16/2016	24.53	24.16	0.00	-1.49%	1
Sector							(# in 27)
Consumer Goods	IYK	2/26/2016	106.32	110.76	0.65	4.79%	11
Basic Materials	XLB	4/25/2016	47.27	46.28	0.27	-1.52%	3
Global Telecomm	IXP	2/8/2016	59.22	61.28	0.00	3.49%	13

Portfolio

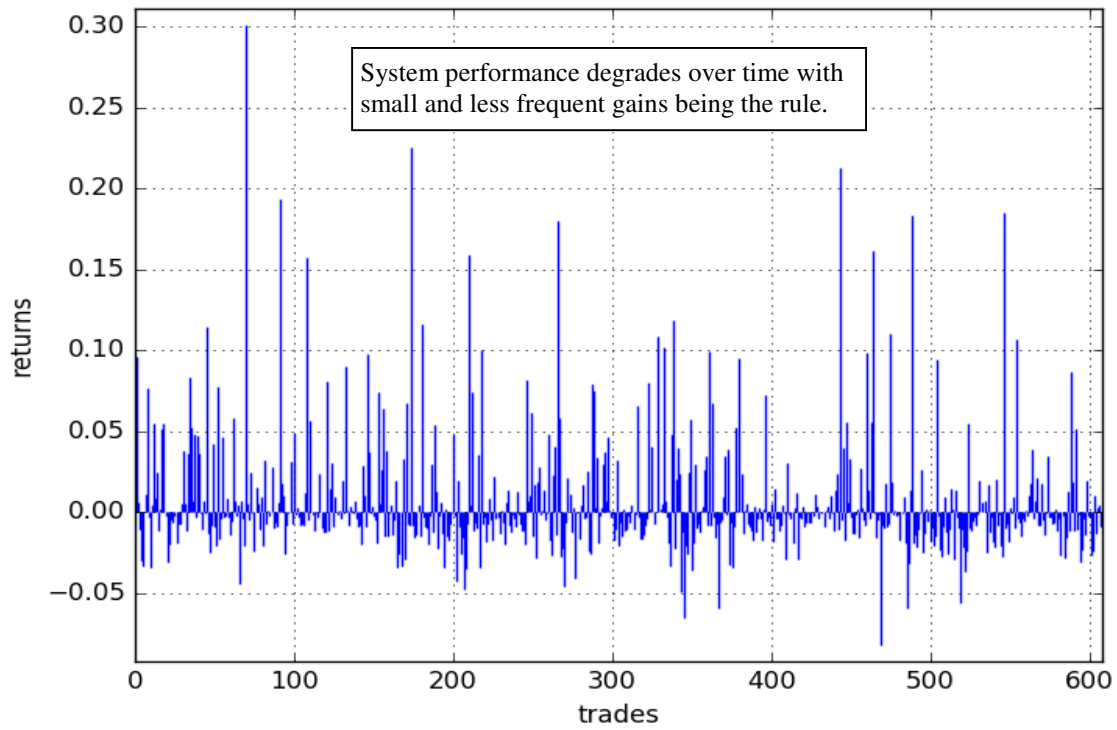
Slot	Name	Symbol	ET Rating Stock	Group	Power Group	ET Rating Group	Entry Date	Entry Price	Current Price	Divid.	Total Return	Mental Stop	Action
Core Portfolio - US Equities													
1	S&P 500	SPY	2		Large Cap		10/19/15	203.20	205.49	2.26	2.2%		Hold
2	Russell 2000	IWM	2		Small Cap		11/02/15	118.21	110.79	0.82	-5.6%		Hold
3	Russell 1000 Growth	IWF	2		Large Cap		11/12/15	98.76	98.41	0.75	0.4%		Hold
4	S&P 500 Value	IVE	2		Large Cap		03/21/16	90.09	90.76	0.55	1.4%		Hold
5	British Petroleum	BP	3		Oil Major		03/21/16	31.43	31.93	0.60	3.5%		Hold
6	Royal Dutch	RDSA	2		Oil Major		03/21/16	48.91	49.22	-	0.6%		Hold
7	S&P MidCap	MDY	2		MidCap		04/18/16	267.64	264.19	-	-1.3%		Hold
Core Portfolio - International													
1	Japan	EWJ	3		Japan		12/14/12	9.45	11.62	0.39	27.2%		Hold
1	World	VEU	3		International ETF		10/19/15	45.53	42.87	0.34	-5.1%		Hold
Core Portfolio - Dollar Diversification													
1	Dollar Up ETF	UUP	4		Bull Yield		06/18/15	24.68	24.69	-	0.1%		Hold
Core Portfolio - Yield													
1	Barclays High Yield	JNK	4		High Yield		02/20/09	29.17	34.99	19.00	85.1%		Hold
2	iShares High Yield	HYG	4		High Yield		02/20/09	69.98	83.14	37.51	72.4%		Hold
3	PS Finan. Preferred	PGF	3		Yield		03/13/09	8.35	18.91	8.90	233.1%		Hold
Core Portfolio - Speculation													
1	VIX inverse	XIV					10/06/15	27.29	28.63	-	4.9%		Add

Portfolio Notes: Growth is trying to gain some traction while small- and mid-cap stocks are trying to develop their leadership roles as they correct. The Value Line Plan remains out of the market with a 453.40 buy stop. The Value Line Geometric stands at 448.24. SLV is a perfect pullback to its breakout level and will be a buy between \$15 and \$15.50. No other portfolio changes just now; we have some staged but want to wait for solid evidence that the correction has run its course. You can add to XIV and MDY if you want more exposure than you currently have. Our intermediate-term outlook remains positive. The only real worry is how the market will deal with the anticipation of the Fed's next rate increase, so far it has gotten us a garden variety correction. No changes to the ETF portfolio this week. In a long-term sense I think that the big opportunity is likely to be commodities. Stocks are expensive and commodities are cheap and there is a good chance that relationship will be reversed at some point in the future. Hang in there and be careful.

John Bollinger's Capital Growth Letter is published monthly by Bollinger Capital Management, Inc., P.O. Box 3358, Manhattan Beach, CA 90266.; Phone: (310)798-8855 Website: www.BollingerBands.com E-mail: BBands@BollingerBands.com Subscription rates: \$300 a year, 3-issue trial subscription: \$50. This newsletter contains information obtained from sources we fully believe to be reliable; however we do not guarantee accuracy. Although opinions expressed herein are based on sound judgment and research, no warranty is given or implied as to their true reliability. The responsibility for decisions made from information contained in this newsletter lies solely with the individual making those decisions. It should not be assumed that recommendations made in the future will be as profitable or equal the performance of the securities in this list. Officers of Bollinger Capital Management, Inc. may at times have positions in securities mentioned.

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John Bollinger's Trade Visualization

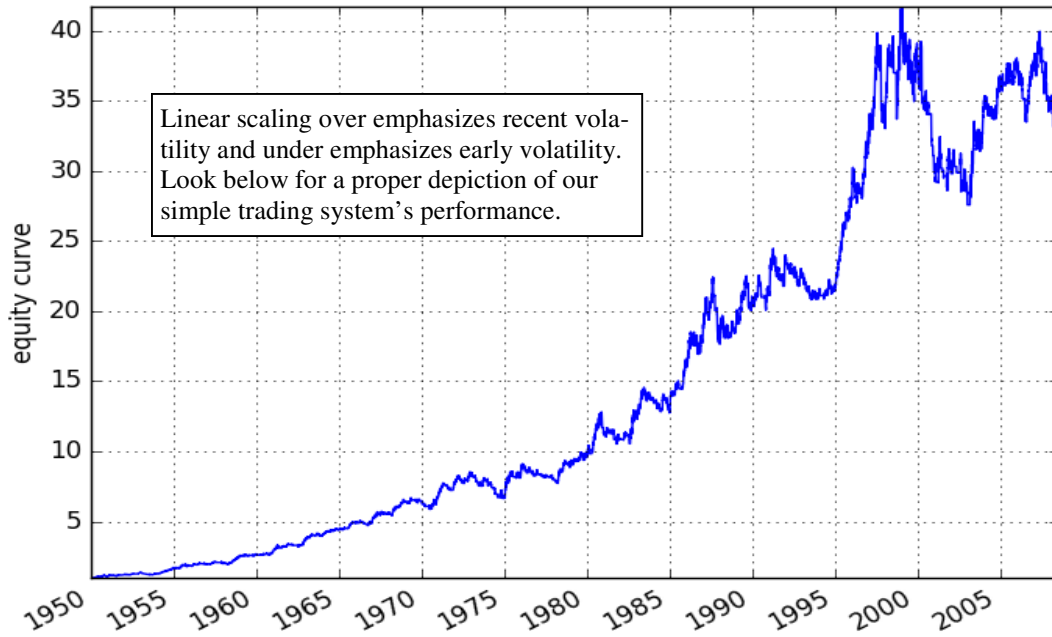


System Space — Trades

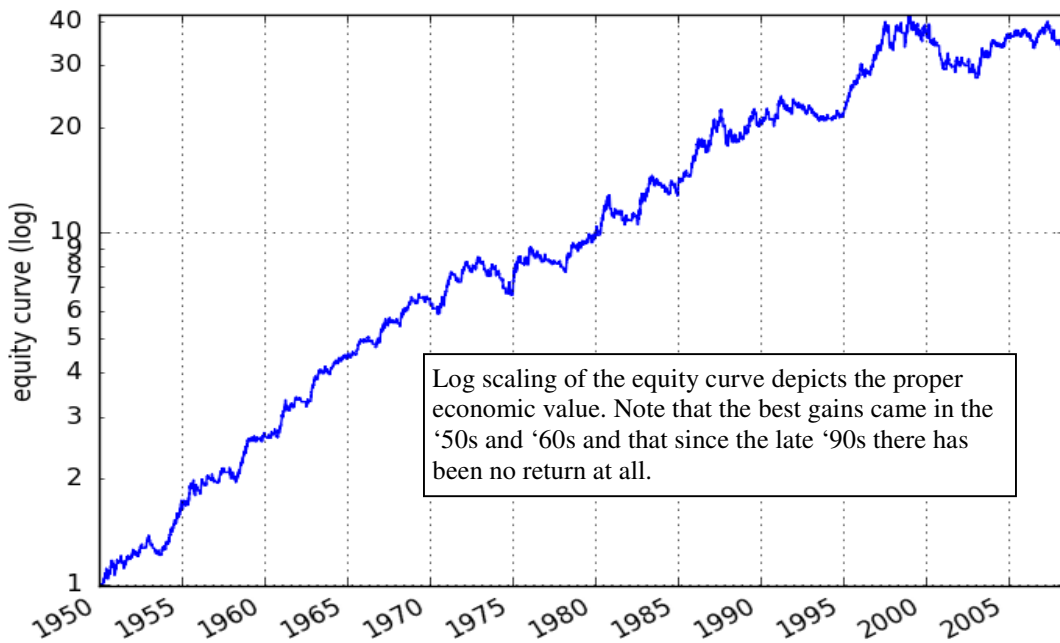
John Bollinger's Trade Visualization



System Space — Gains Versus Time



Trade System Space — Equity Curve (Linear)



Trade System Space — Equity Curve (Log)

been an intermediate-term swing trader. That was how I learned and even as the markets have changed I have found very little need to change my basic approaches, the details perhaps, but the core ideas I started out with remain useful to this day.

One interesting aspect of a book like this is how much it tells you about the author. In a relatively short span I suspect that you will get to know Perry quite well. All-in-all this is a good book and I recommend it along with Robert Pardo's "Design, Testing, and Optimization of Trading Systems", 1992, John Wiley. Get the original, not the new edition.

PS One subject on which I profoundly differ with Messrs Kaufman and Pardo is optimization. In my view optimization is almost always poisonous as it is nearly impossible to optimize without curve fitting. I never run optimizers.

PPS Amazingly the first edition of "Commodity Trading System and Methods", which is still a terrific book in my view, can be had on Amazon for a penny plus shipping, which must represent one of the greatest values of all times in trading books. The fifth edition is \$82 in the same place.

Reading Rack II

Recently we have seen a number of interesting Python programming titles hitting the market, a testament to the increasing popularity of the language. The interesting thing is that they are mostly pretty good books. I suppose that can be explained by the fact that publishers have their pick of a wide variety of submissions to chose from, but I think a better explanation is that Python is drawing many fine minds into its ecosystem. No Starch Press is out with the latest: "Python Crash Course" by Eric Matthews, a high school science and math teacher from Alaska. This work takes an interesting approach; it opens with a relatively short, but comprehensive introduction to the language then shifts to three substantial projects to work through. He even covers the use of pyplot, which is the matplotlib module I used to draw the graphs for the system analytics we discussed earlier. If you are interested in my project but don't know Python this might be a nice way to get started.

Appearances

Online replay of John Bollinger's webinar "The Most Powerful Bollinger Band Trading Tools"

<https://www.youtube.com/watch?v=Em2ObWiiNSs>

