Volume #30 Issue #12 27 May 2017

THE BOLLINGER BAND LETTER

"Greed is fear of not having enough." The Wall Street Cynic

ML8ML8

The above is a vanity license plate, can you guess what kind of car? The newsletter is late this month as I had the audacity to grab a bit of vacation in Japan mid-month. We traveled in the countryside of the Southern island, Kyushu. I won't bore you with the details, let me just say that it was fantastically beautiful and is highly recommended. Back to the normal schedule next month. (Answer at end.)

It all started innocently enough...

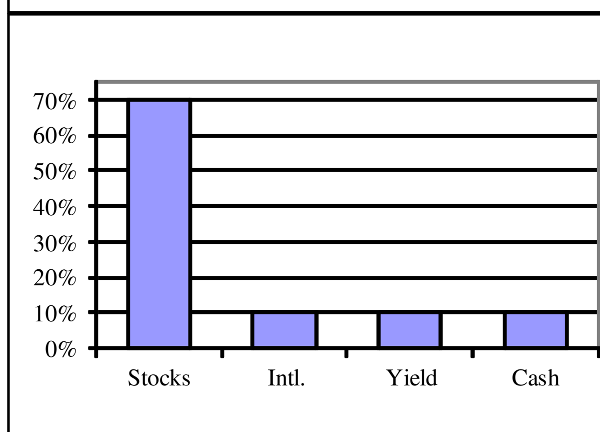
Some background: The purchase of a call option confers the right, but not the obligation, to purchase a security at a given price for a given time. The purchase of a put option confers the right, but not the obligation, to sell a security at a given price for a given time. The price of the option is agreed upon in an open-market negotiation. The components of the price are the current price of the underlying security, the strike price of the option, time to expiration, any dividends, the cost of financing and a volatility estimate. All but the last are known quantities. The volatility estimate can be backed out of the price of an option using an option valuation formula and the other data; this is known as implied volatility as it is the estimate of future volatility that is implied in the price of the option. There are two kinds of volatility, historical volatility, usually the standard deviation of the price changes of the underlying security, and implied volatility. Historical volatility is a fact, implied volatility is an estimate of the future — it is a psychological quantity. In times of fear implied volatility is high, in times of confidence it is low. This is where the VIX gets it nickname, "the fear index". (Hint to traders: There is useful information in the relationship of historical and implied volatility.)

A long time ago in a market far, far away a very successful S&P 500 futures contract was trading on the Chicago Mercantile Exchange, the CME. The Chicago Board Options Exchange, the CBOE, a spin-off of the competing Chicago Board of Trade, wanted in on the action, so in 1983 they launched an options contract based on the S&P 100, the OEX, a bespoke index cre-

The Investing Environment

Monetary	Model	Current
Fed Model	Neutral	
Yield Curve	Positive	2.373
Money Supply	Positive	6.5%
Sentiment	Model	Current
Net Bulls	Negative	37.5
Options	Positive	0.95
Valuation (S&P 500)	Last Signal	Current
Yield		2.03%
P/E Ratio		24.91
Current Trends	Short Term	Long Term
Stocks	Up	Up
Interest Rates	Down	Up
Energy	Down	Up
Gold	Up	Down
Commodities	Down	Down
Dollar	Flat	Up

Asset Allocations



ated for the purpose. The OEX, short for Options Exchange, was a one-fifth size surrogate for the S&P 500, SPX. The OEX option contract was one of the most successful product launches ever. The pit where it was traded became a monster, quite literally. Several months after the launch of the OEX the CBOE started trading S&P 500 options, but the real action remained in the OEX for a long while. Eventually OEX options came to be seen as the more retail of the two contracts and the SPX options the institutional vehicle. Thus the stage was set.

In 1987, a couple of academics, Brenner and Galia, wrote a paper on creating an implied volatility index. Traders had been doing this sort of thing for years, but the paper set the ball rolling. After a few false starts the CBOE Volatility Index, the VIX, was born four years later. Originally a time-weighted index of the implied volatiles of near the money option contacts from the current expiration and the next month's expiration, the calculations have been refined several times. The original VIX was based on the OEX, but after a version based on the SPX was introduced it quickly become the more popular of the two. Today the SPX version is known as the VIX and the OEX version is known as the VXO. Along the way other volatility indices joined the game, most notably VXN, based on the NASDAQ 100 Index. Then came futures on the VIX and then options on the futures and so on…

Along the way a huge institutional book of business in volatility swaps built up; a book that I suspect dwarfs the rest of the action combined, but that is a strictly over-the-counter market and there is no reliable volume or open interest data available. When Exchange Traded Funds and Notes, ETFs and ETNs, based on the VIX were added to the mix, the popularity of VIX products really took off. The ETFs and ETNs came in normal and inverse versions with multipliers of one, two and three. Ultimately all this has progressed to the point where the tail is wagging the dog; it is the volatility trade that is driving the market now. The first absolute notice of this came on Wednesday, the 17th of May, when the market experienced a "volatility event" in which the prime actor was not stock-market action, but trading in volatility derivatives.

In the middle '80s the idea of portfolio insurance gained mind share and was put into practice writ large. The idea was simple, a throw back to the "Formula Plans" of the 1950s that we have discussed in depth here. As the market started to decline you were supposed to sell S&P 500 futures to hedge your position; the more the market declined the more you sold. That all worked beautifully on paper, but in reality there always has to be someone to sell to, the 'greater fool'. The theory had it that there was an unlimited supply of 'ever greater fools' who would take the other side of the trade, buying your papers as the market fell. In practice, as the sell orders surged market makers stepped back and waited for things to settle. However, the insurers didn't step back, instead they stepped up their selling, plunging the market into free-fall. Feeling the pain, other participants sold whatever they could when what they wanted or needed to sell went without a bid. Still others were liquidated by their brokerages as their margin requirements

Value Line Arithmetic — One Year

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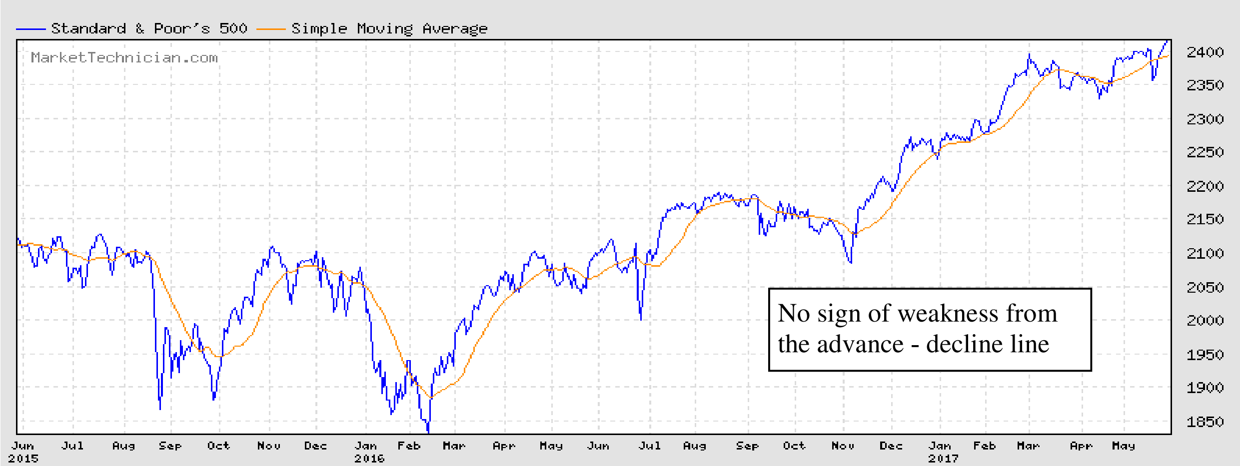
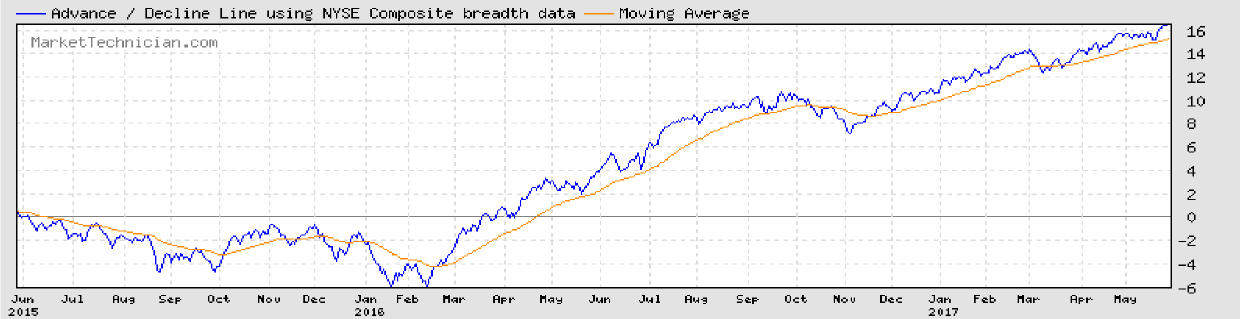
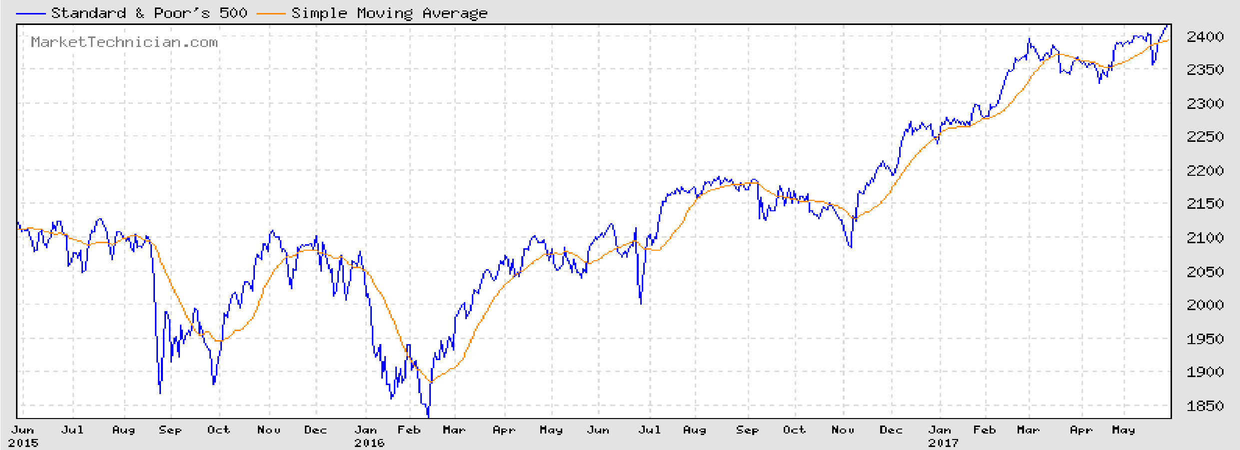
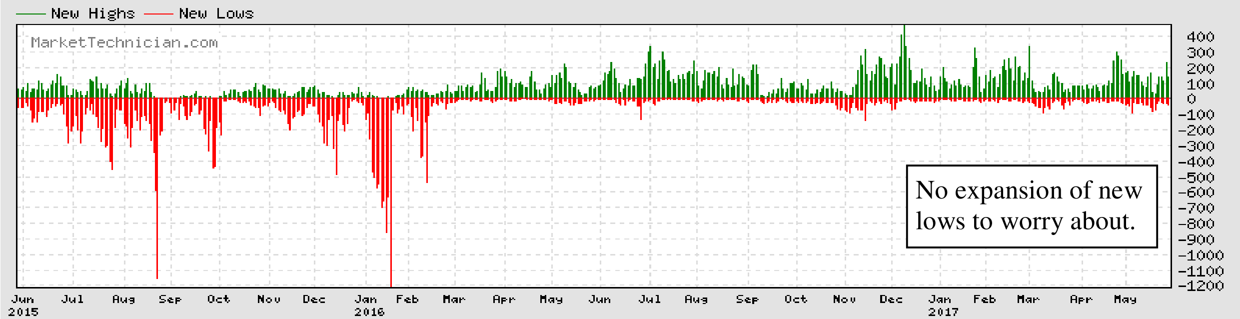




S&P 500 and NYSE Advance - Decline Line — Daily — One Year





S&P 500 and NYSE New Highs / New Lows Histogram — Daily — One Year

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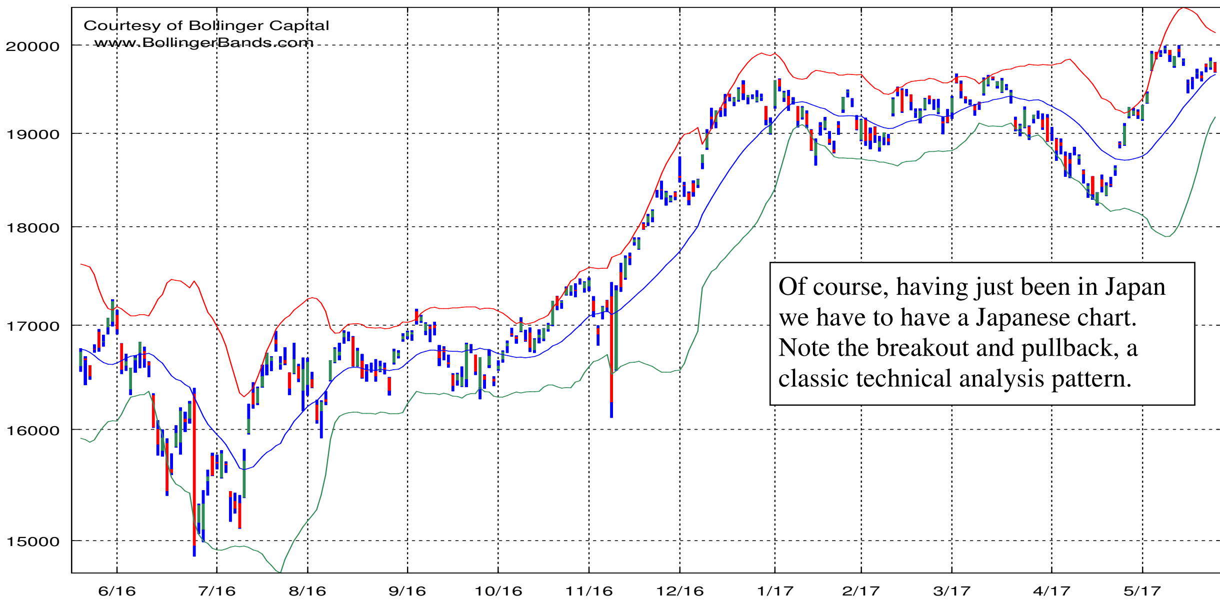
FTSE — Daily — One Year

were exceeded. And so the decline fed on itself, and out of the maelstrom emerged the worst day in stock market history. You'd have thought that such a nightmare would have produced a memorable lesson, but nooooo… "Let's give this hunt for ever-greater-fools a new name, "The Fear Index", and go at it again. Even bigger this time. Yeah baby! Over the top!"

Today we sit on top of an even bigger powder keg than we did in 1987. The huge open interest in volatility derivatives is not the problem, the problem is what happens when it comes time to transact. For example, the recent way-cool idea has been to bet on volatility staying low, which means shorting VIX products as you can't short the VIX directly; the VIX is an abstract idea and, as such, not directly tradable. That means shorting VIX futures, buying VIX put options, selling VIX calls. In the stock market that means shorting VIX funds and buying inverse VIX funds.

Option prices are mostly driven by the put-option trade (via put/call parity, reversals and conversions) so the value of the VIX is really a reflection of the demand for insurance, which is to say the demand for put options.



Nikkei 225 — Daily—One Year

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When you buy a put, the result is selling in the underlying security to hedge the position. Once a decline starts puts are aggressively purchased to hedge, the put sellers, usually market makers of some sort, immediately hedge their exposure. If they can't short the underlying instrument, then they will sell something else, usually something similar, but in dire straights anything they can sell. That actually works because in panics correlations merge towards one, which is to say fear-driven selling causes everything to fall together. As the decline starts all those bets on low volatility come into play. As puts are bought and the VIX starts to rise they rush to cover their shorts in VIX derivatives and some will even try to reverse to a net long VIX position, all of which translates into trades in the cash markets that exacerbate the decline. It is a long, complicated story without a happy ending.

To see this at work look at the trading on May 17th. The market sold off by a mere two percent. Yet the VIX and its sister indices rose by 50% and VIX derivatives traded in huge ranges. That is highly irrational behavior. How so? Well, the VIX is a forecast for expected volatility. If the VIX is at 10, then an index with a price of 150 is expected to fall within a band of 145.79 to 154.33 on a 30 day horizon 68% of the time and within the band of 141.81 to 158.66 95% of the time. A gain of 50% takes the VIX to 15 and the targets to 143.77 / 156.50 and 138.04 / 162.99, again over a 30 day horizon. In terms of ranges, a VIX of 10 implies a 6% range at a 68% confidence level and a 12% range at a 95% confidence level. At 15 the ranges are 9% and 18%. All of that is a one-month horizon. To put that in perspective, the average of the absolute values of monthly changes of the S&P 500 since 2000 is 3.2% with a variance of 2.7%, which works out to a VIX of approx 11. The day before the volatility event the VIX stood at 10.42 and Thursday's peak was 16.30, which suggests that we went from just a bit below rational expectations to 50% above normal on a single day's trade. As I write this the VIX stands near 10, just a bit below what I would should expect given historical volatility.

I promise you that we haven't heard that last of this; a volatility event lies in our future and the regulators will only move to close the barn door after all the sheep are out and the wolves have eaten them. We won't see some sort of replay of the '87 crash; rather it'll be something new and 'interesting' and, just as in '87, everyone will have forecast it after the fact.

The Current Market

Each day the NYSE reports the number of stocks that are up on the day and the number down on the day. They also report the number of stocks making new 52-week highs and lows and the summed volume of the up stocks and down stocks. Collectively, these figures are known as market-breadth data. This data is the source of a number of some rather powerful market-timing tools, the most important of which is the NYSE advance – decline line, ADL. The American Stock Exchange and the NASDAQ report similar data, however it has proved to be much less useful for reasons I have never been able to fully discern.

10-Year Interest Rates — IRX

Gold Bullion Futures — GC — One Year

I recently read a MarketWatch article which averred that the NYSE advance – decline line was lying to you. It seems that the author had discovered the difference between the plain-vanilla version of the advance-decline line and the operating-companies-only, or OCO, version. The analysts at the Lowry's Reports have been tracking the OCO series for eons, a fact that the author wasn't aware of. The differences between the two series are mostly closed-end funds, ETFs, ETNs, bond funds, preferred stocks and the like. One version of the ADL is not particularly better than the other per se, however there can be substantial differences between the two, especially in periods during which interest rates are trending. Which version to focus on is a thinking man's game. (In a rising interest rate market, which we are almost assuredly in, one would expect to see the vanilla ADL under-perform, a fact that makes the current strong performance all the more impressive.) Our default position has always been to look at the vanilla version first and then check the OCO version to see if it had anything to contribute. The big mistake with either version is to focus on absolute levels rather than trends and strength/weakness in comparison to price. Utilized correctly market-breadth data in general and the advance-decline line

Platinum Bullion Futures — GC — One Year

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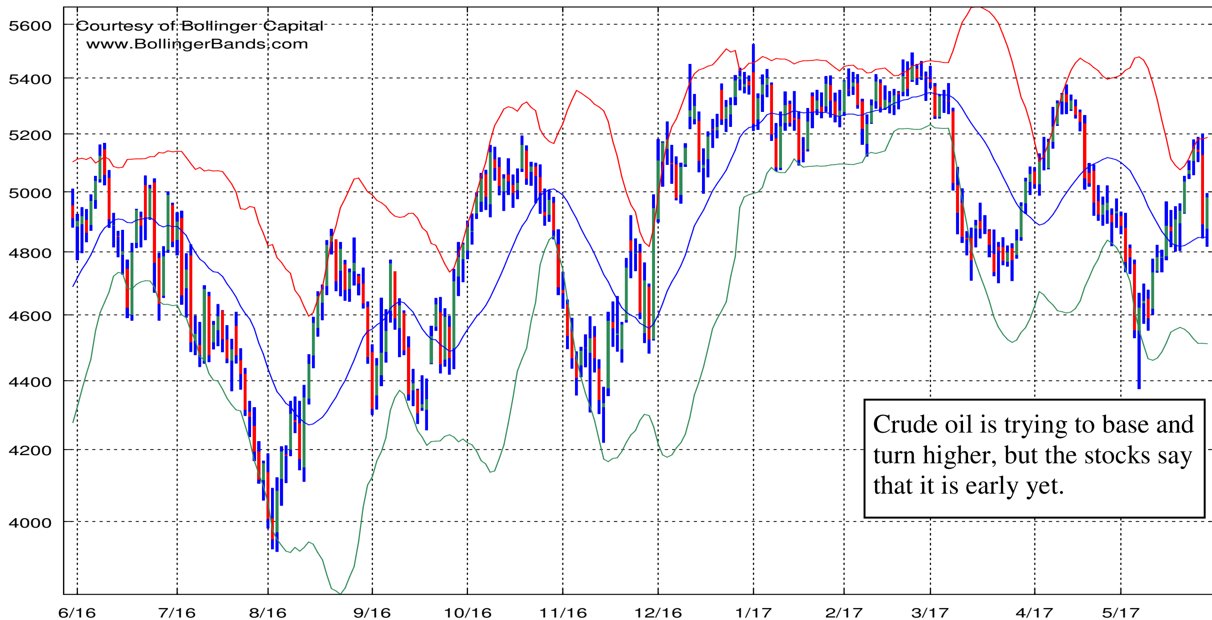
Energy Stock Index — XOI — One Year

in specific can be really helpful.

Recently the NYSE ADL made a new high ahead of price, which is exactly the action we would like to see if the rally is to continue. In addition, new lows have remained tame and are not building up in a manner that should cause worry about a market top. If this were a market top with an important decline in the making we would expect to see weakness, not strength, in the ADL and new 52-week lows steadily building up. It is particularity important to monitor the new lows as we march through earnings reporting season. In addition, it can be quite useful to note what sorts of stocks are making new highs and new lows.

The interesting part about the tools derived from breadth data is that in many ways these are amongst the simplest and most widely known technical analysis market-timing tools. One would think that the wide adoption of these tools would dilute their usefulness, but that has not proved to be the case. Much like Bollinger Bands, these are first principles tools that derive their value from ba-



Crude Oil Futures — CL — One Year

sic market mechanisms, so it would take a sea change in the markets to devalue them. In other words, they are robust.

Sell in May…

The old saw goes, "Sell in May and go away.", and that proved to be remarkably reliable advice for many years. Yet, our outlook for stocks remains constructive and we still think that weakness should be bought. Why is that? One major factor is market breadth, which we discussed above and is quite positive. Another factor is that May is not the month to sell in any more. In more recent stock market history August, or even September, have been better months to sell in, with the idea of reinvesting near the fall lows. That is quite a change as for many years September was the month to buy in after having sold in May. However, the whole cycle has shifted later into the year.

Not everyone is facile enough to take advantage of the 'annual dip' and in some accounts tax considerations argue against such relatively short-term trading, but for most accounts this annual seasonal pattern of selling August/September and buying in October/November offers a nice way to add some value in a market where value has been hard to come buy. One tax-efficient way to work this idea is to hedge rather than sell. Stock index futures and options can be useful in this regard. The long VIX ETNs all have a systemic downside bias, but they may be useful in this regard if the expected holding period is short enough. Have a look at how VXX or VIXY have performed in declines. Of course, there are leveraged versions if that is what you need.

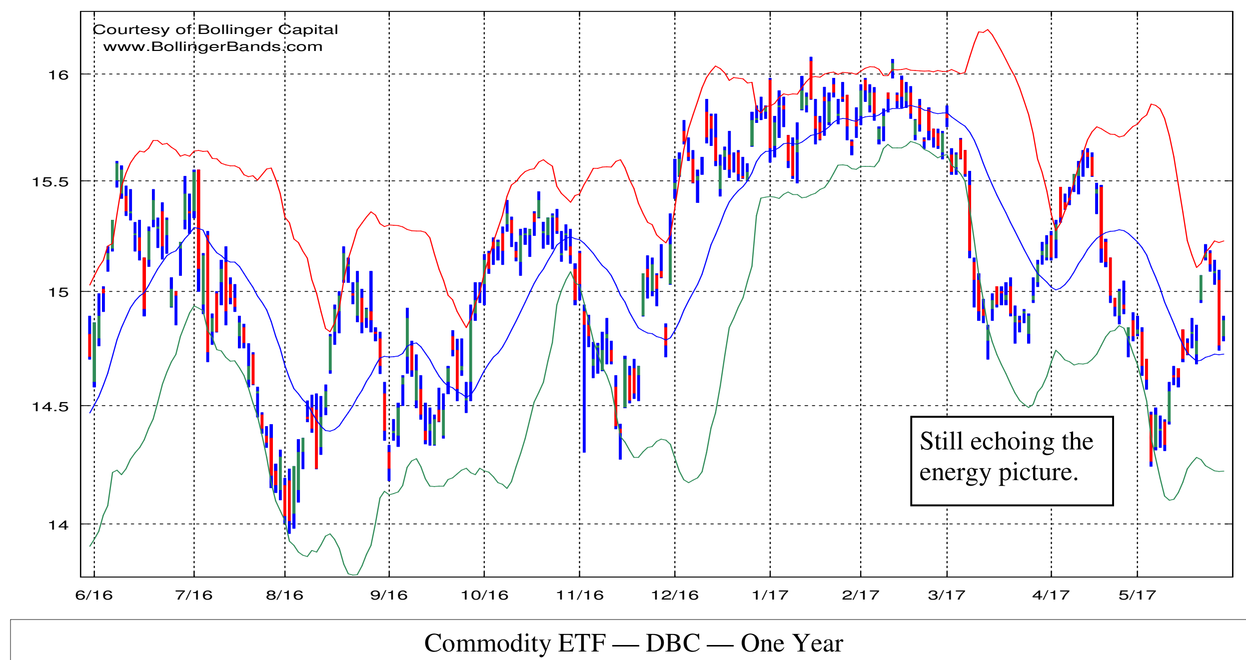
There is another sell and buy cycle, a monthly cycle that may be of interest to certain traders, we will take that up next month.

Precious Metals

Gold is getting a lot of buzz here with many pundits talking it up, but I am not on board. I like to look at this complex a couple of ways, first as the precious metals, gold, silver, platinum and palladium; then as the stocks versus the commodities; and finally, in relation to the other metals, copper, aluminum, steel… Aluminum looks best with copper trying, but the rest of the items simply have nothing going for them. We'll need to see much more constructive action in this sector before committing to it. Most importantly, I want to see the stocks putting together constructive patterns and developing some relative strength, but there are no hints of that yet.

Interest rates

No change in our outlook here; we still think that we have seen the bottom of a long-term interest rate cycle and expect substantially higher interest rates over the coming years. That suggests two things: One, that bonds are unattractive. Two, that sometime in the future there will be an important opportunity to buy bonds. Perhaps in conjunction with an opportunity to sell stocks?



Commodity ETF — DBC — One Year

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View from the Beach: The Johns

In line with our opening quote: John Bogle, now 88, and John Templeton, who passed in 2008, are amongst the greediest men to have succeeded on Wall Street. Despite having built vast empires, the Vanguard and Templeton fund families, and having personal wealth numerated in billions, they continued to campaign tirelessly into old age, Templeton passed at 96 and Bogle is 88. Their single-minded purpose, to have you invest your savings in their fund families so they can earn management fees. While one has to admire that sort of drive, one also has to wonder what it is about them that won't let them rest. Long after they had achieved more than almost anyone else in the business, with the possible exception of Fidelity's Johnsons, they kept on campaigning. I, for one, don't have anything near that drive, indeed such unhindered purpose seems impossible for me to conceive. I have family, love to cook, enjoy hobbies, like to travel, go camping, run and am contemplative. Their perpetual motion at the expense of all else; well let's just say that I find it hard to imagine. I gather that is what it takes to build an empire, but I prefer to have done well and lived well. As George Herbert opined: "Living well is the best revenge."

There may a secret lesson here, none of these funds were based in New York City. Templeton in the Bahamas, Vanguard in Pennsylvania, and Fidelity in Massachusetts. Indeed as one looks down the list of the major fund families, few of them had their roots in Wall Street. As I have always opined, holding Wall Street at a distance confers a clear advantage.

Appearances

The San Francisco Money Show
San Francisco, CA, August 26, 2017
http://ow.ly/FWlY30aFNZD

Newsletter Subscription Offer

Prices for the newsletter are going up with the June billing cycle to $39/month. If you have not done so already, as an existing subscriber you can lock in the existing newsletter pre-paid rates of $300 for one year and $500 for two years. That can be done online at https://www.bollingerbands.com/shop

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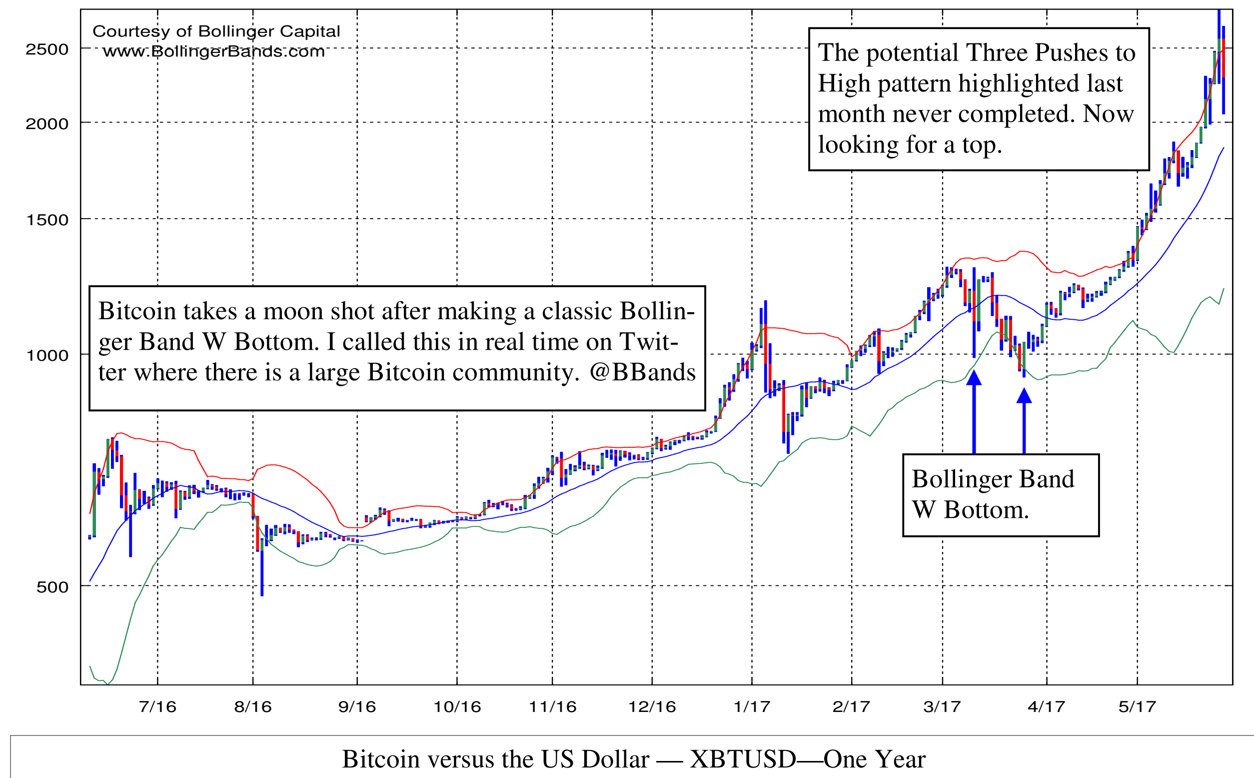

Bitcoin versus the US Dollar — XBTUSD—One Year

I'm Late, I'm Late for…

a very important date.
No time to say hello, good-bye,
I'm late, I'm late, I'm late.

It was a white Volkswagen Rabbit.

Sector Selector ETF Portfolios

ETF Portfolios	Symbol	Date Selected	Purchase Price	Current Price	Dividends	Return	Rank
Style							(# in 21)
Core Growth	IUSG	4/24/2017	46.87	48.50	0.00	3.48%	2
Russell 1000 Growth	IWF	2/10/2017	111.06	119.22	0.33	7.65%	3
Russell 1000	IWB	1/27/2017	126.69	134.47	0.56	6.59%	5
International							(# in 24)
Austria	EWO	1/20/2017	17.26	21.58	0.00	25.03%	1
Spain	EWP	4/7/2017	29.85	33.29	0.00	11.52%	5
Netherlands	EWN	5/6/2017	28.91	29.46	0.00	1.92%	2
Sector							(# in 27)
Technology	XLK	3/3/2017	52.51	56.38	0.21	7.76%	3
Software	IGV	4/17/2017	125.88	138.50	0.00	10.03%	2
Semiconductors	SOXX	10/7/2016	113.43	147.03	0.64	30.19%	4

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Portfolio

Slot	Name	Symbol	Entry Date	Entry Price	Current Price	Divid.	Total Return	Mental Stop	Action
Core Portfolio - US Equities									
1	S&P 500	SPY	10/19/15	203.20	241.71	6.78	22.3%	224.00	Hold
2	Russell 2000	IWM	11/02/15	118.21	137.54	2.74	18.7%	132.00	Hold
3	S&P MidCap	MDY	04/18/16	267.64	314.31	3.95	18.9%	300.00	Hold
4	Chevron	CVX	08/08/16	101.15	104.00	2.15	4.9%	104.00	Stopped
5	Oil Services HOLDRS	OIH	08/08/16	28.87	28.00	0.47	-1.4%	28.00	Stopped
6	Finance	XLF	10/08/16	19.75	23.61	0.19	20.5%	22.00	Hold
7	National Oil Well	NOV	12/05/16	38.23	35.00	-	-8.4%	35.00	Stopped
8	Russell 100 (Equal)	EQAL	12/05/16	26.81	28.45	0.19	6.8%	27.00	Hold
9	Healthcare ETF	IYH	01/14/17	147.28	158.70	0.44	8.1%	148.00	Hold
10	Global Telecomm ETF	IXP	01/14/17	60.09	60.53	-	0.7%	56.50	Hold
11	S&P Small Cap	IJR	03/17/17	69.35	68.77	0.22	-0.5%	65.50	Hold
12	S&P 500 Growth	IVW	03/17/17	131.81	137.80	0.15	4.7%	124.00	Add
13	Royal Dutch A	RDS.A	05/26/17	54.41	54.41	-	0.0%	124.00	Buy
Core Portfolio - International									
1	Japan	EWJ	12/14/12	44.99	53.18	1.07	20.6%		Hold/Add
2	World	VEU	10/19/15	45.53	50.41	1.48	14.0%		Hold
3	Int'l Property ETF	WPS	05/26/17	37.41	37.41	-	0.0%		Buy
Core Portfolio - Yield									
1	Barclays High Yield	JNK	02/20/09	29.17	37.33	21.17	100.6%		Hold
2	iShares High Yield	HYG	02/20/09	69.98	88.57	42.38	87.1%		Hold
3	PS Finan. Preferred	PGF	03/13/09	8.35	19.04	9.84	245.8%		Hold
Core Portfolio - Speculation									
1	VIX Inverse	XIV	10/06/15	27.29	79.54	-	191.5%		Add

Portfolio Notes: Large-cap growth remains the sweet spot in the market. With the Value Line Geometric standing at 518.53 the Value Line Plan remains in the market with a Friday sell stop of 506.01. There were no changes to the ETF portfolio this week. Ice Breaker is maintaining one long position for each of the five monitored funds. Our energy positions have all been stopped out. We are replacing them with a single position in Royal Dutch A. We are overweight in mid-cap and smaller stocks, which is causing some underperformance. On the other side our continuing commitment to XIV is a solid counter-balance and our commitment to Yields is providing continuing stability and return. We are adding WPS to our international commitment for diversification and yield. The weekly breadth charts were not available at publication time, so that page does not appear in this letter.

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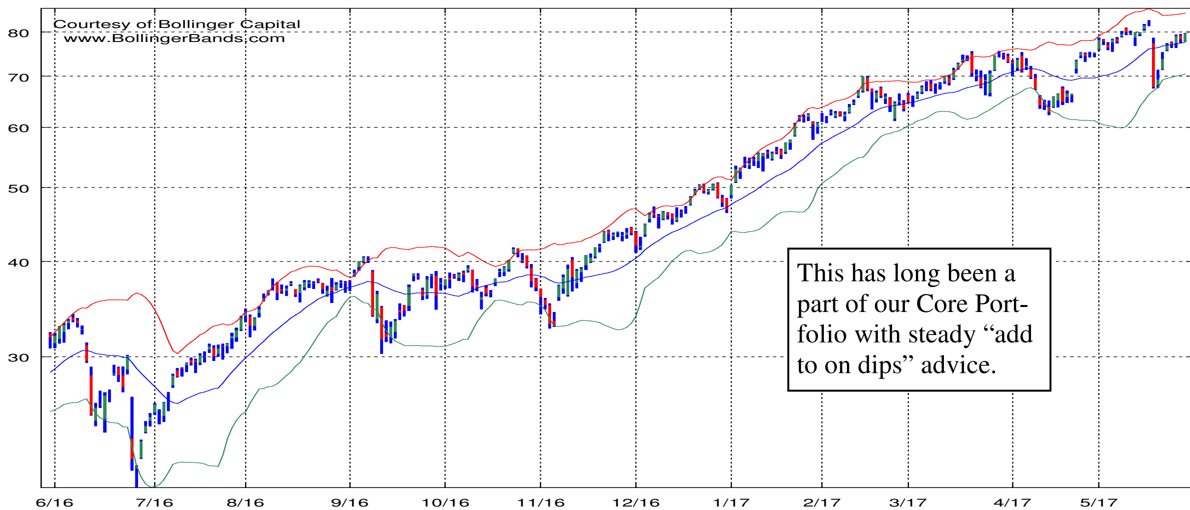
The CBOE Volatility Index — VIX — One Year

Velocity Shares VIX ETN — VIIX — One Year



Velocity Shares Inverse VIX ETN — XIV — One Year

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