



"One thing we have lost, that we had in the past, is a sense of progress, that things are getting better. There is a sense of volatility, but not of progress." Daniel Kahneman

### Volatility

We have talked a lot about volatility recently, so I won't beat a dead horse as you know how important volatility has become. The interesting bit is that we are no longer alone. In fact, the room is getting crowded. People are starting to talk about volatility as an 'asset class' all on its own. Who'd o' think? For example, the MTA recently gave the Dow Award to a rather nice paper on volatility, the *Wall Street Journal* recently ran a feature article: "The Snowballing Power of VIX, Wall Street's Fear Index" and the academic journals are full of volatility articles. The troubling thing is that none of them seem to actually understand the dynamics of volatility. That's probably because it has been taught incorrectly for so long that the palaver has obscured the truth. That is fine by me; I no longer feel the need to enlighten the benighted – all I care about is that we are on the right side of the trade. I once delivered a top-notch exposition on volatility to a group of Swiss bankers and was nearly laughed out of the room. It was not too long after that the financial crisis swept most of their jobs away as they had been on the wrong side of the volatility trade. Why? Because they believed in theories, not markets. Had they been on the right side, they'd have been heroes.

We expect to see a volatility event in the future; indeed it seems near inevitable that one will come. May 17th was a model in miniature of what I expect we will see. On that day a small decline in price led to an out-sized gain in the VIX. Just like with portfolio insurance where declines in price were used as steps to get out of stocks, rises in the VIX are being used as signals to rebalance portfolios, often according to hard and fast rules. On that day the feedback loop neared saturation: A higher VIX equaled more selling = a yet higher VIX = yet more selling...The beast reared its head on the 17th and then went back to sleep. Fore-warned is fore-armed.

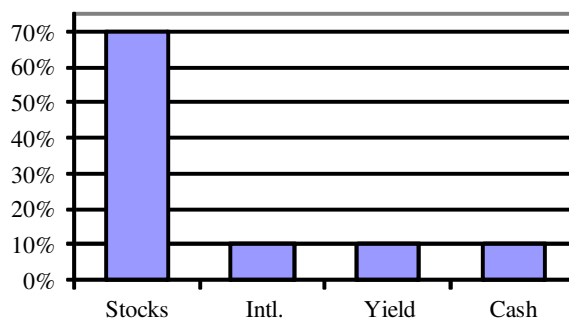
### The Current Market

The stock market, for all the nay-saying and worrying, remains in pretty good condition. Investors moan about

### The Investing Environment

Monetary	Model	Current
Fed Model	Neutral	
Yield Curve	Positive	1.15
Money Supply	Positive	5.9%
Sentiment	Model	Current
Net Bulls	Negative	31.4
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	Flat
Gold	Flat	Down
Commodities	Down	Down
Dollar	Down	Up

### Asset Allocations



valuations and pundits groan about a bubble, but strong market internals continue to suggest a rally, and there are few signs we would normally associate with a top evident. To stay ahead of the curve, among the first things we should look for are an expansion of new 52-week lows, failure of broad-market indices like the Value Line Geometric to participate, a rollover of the NYSE advance – decline line, and sustained weakness in prior leadership without solid replacement leadership. None of those factors are in play at present, but all should be monitored as we head towards the fall and the traditional fall lows.

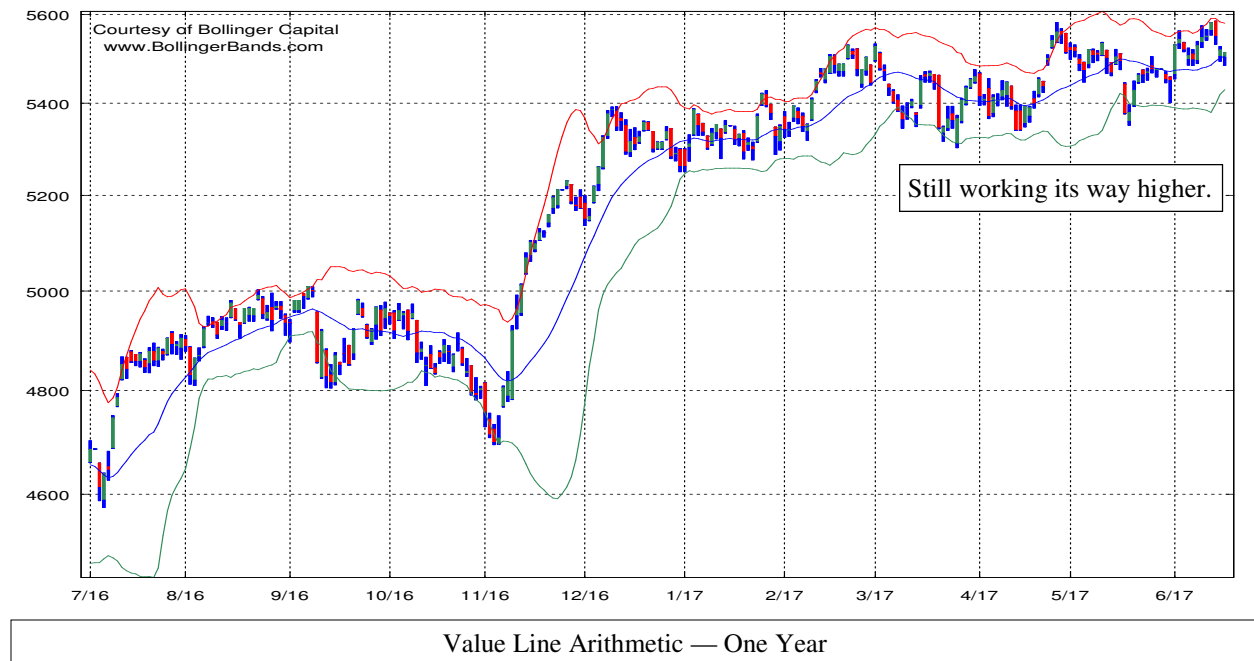
Speaking of leadership, the streak of under-performance by mid-cap and smaller stocks was worrisome, but they have shown some signs of rejoining the party. Growth continues to lead value and participation is remarkably broad, with the vast majority of sectors and groups engaged. If there is anything wrong with this uptrend I can't see it just now. From a contrarian perspective we seem to be in the middle of a classic "Climb a wall of worry" rally. Of course conditions can change rather quickly, so we must stay alert, but our outlook remains positive for now.

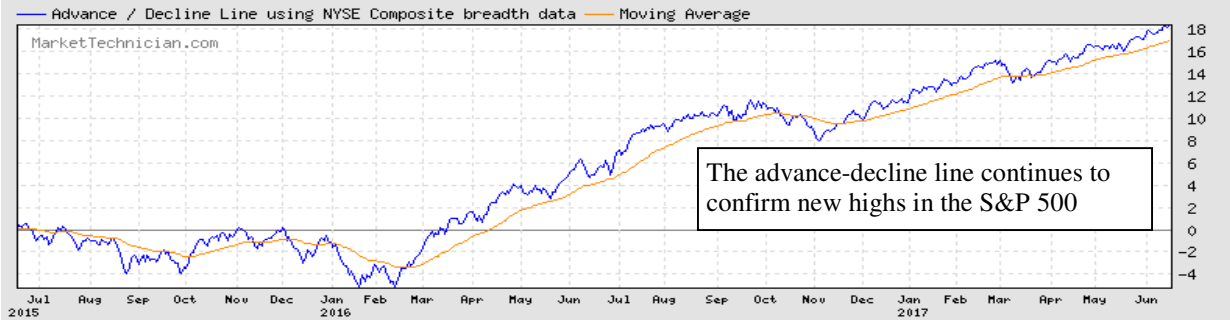
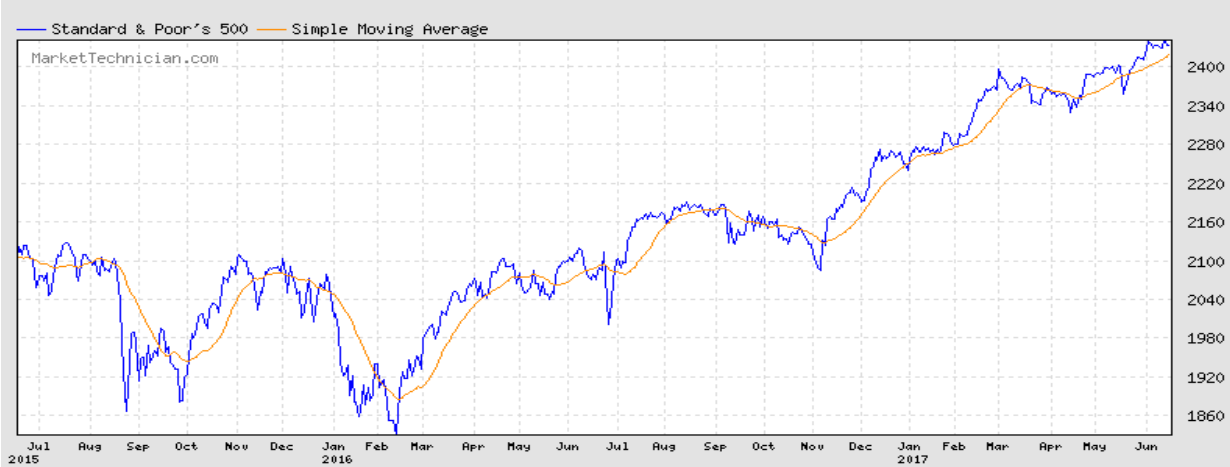
## Bollinger Bands and Bitcoin

About a year or so ago I started following the Bitcoin community on Twitter. I grew to like that community, have gained respect for what they are trying to do, and have occasionally commented on Bitcoin trading. I had known about the crypto-currency for a long time and had been an interested onlooker for a much longer time;

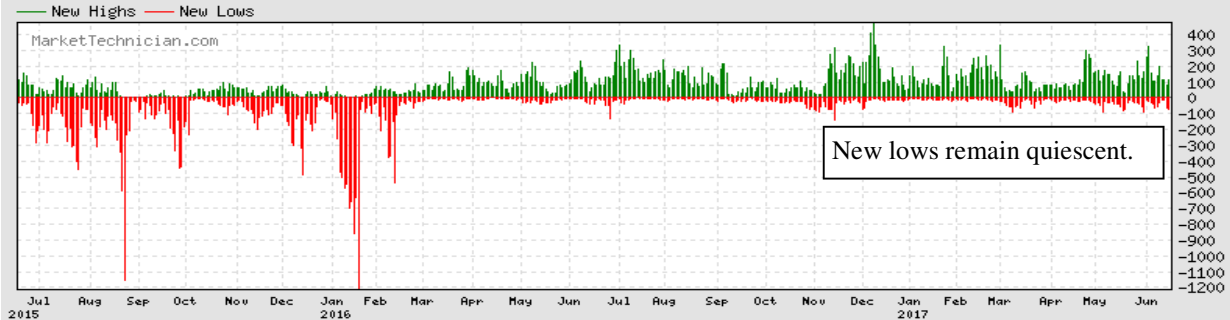
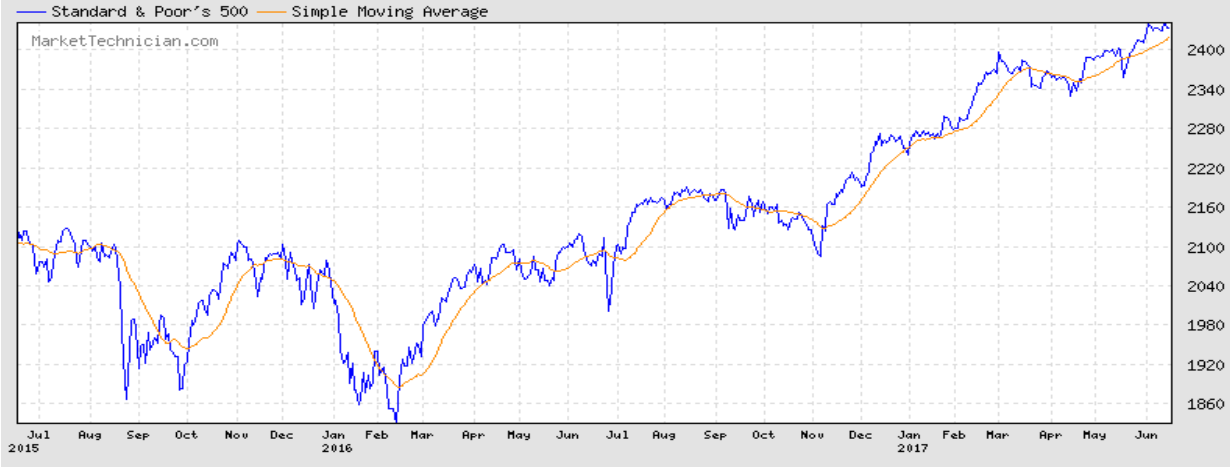
a friend was a Bitcoin miner from early on and I found the tech interesting. However, it wasn't until the last year that I really started to focus on the trading aspects of the currency itself. It turns out that Bitcoin is a terrific vehicle for Bollinger Band trading. That shouldn't come as a surprise as we have long known that Bollinger Bands are well suited for forex in general, and Bitcoin is really nothing more than a specialized form of forex.

So, why are Bollinger Bands and forex such a good combo? Most likely because forex is a form of pairs trading, each transaction involving a long position in one currency and a short in another. For example 'cable' involves being long the British pound and short the US dollar. These days cable is more often known by its symbol, GBPUSD. It turns out that pairs exhibit a statistical property known as stationarity that is central to the concept of standard deviation, the motive force behind Bollinger Bands. Years ago a couple of pairs traders approached me at an MTA seminar and told me how effective my tools were in their work. I asked what they traded, mostly stock pairs. They were using Bollinger Bands to identify when relationships had gotten out of whack with an eye on profiting when they reverted to 'normal'. I wondered about that, looked into the idea and it turned out that they were correct, BBs were quite effective in identifying pairs opportunities. In trying to understand why, I wondered if it was because pairs exhibited stationarity, which is true when over the long haul a series is centered around some core value. That is not true for stocks, which can run to untold heights or crash to zero, but it is true for stock pairs. It is more

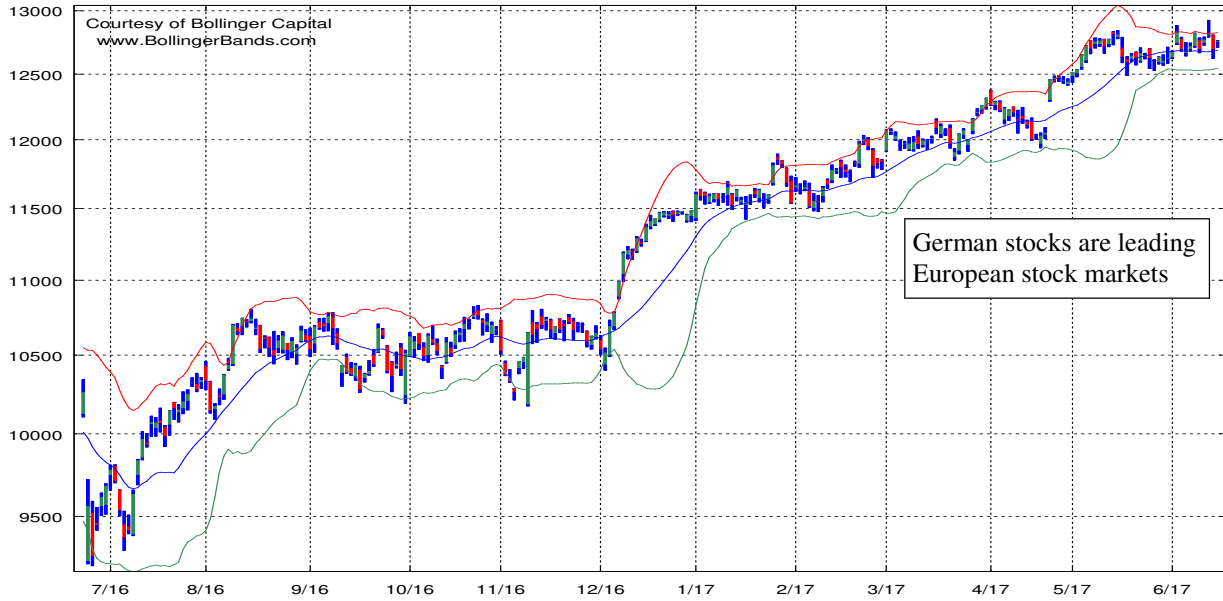




S&P 500 and NYSE Advance - Decline Line — Daily — One Year



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



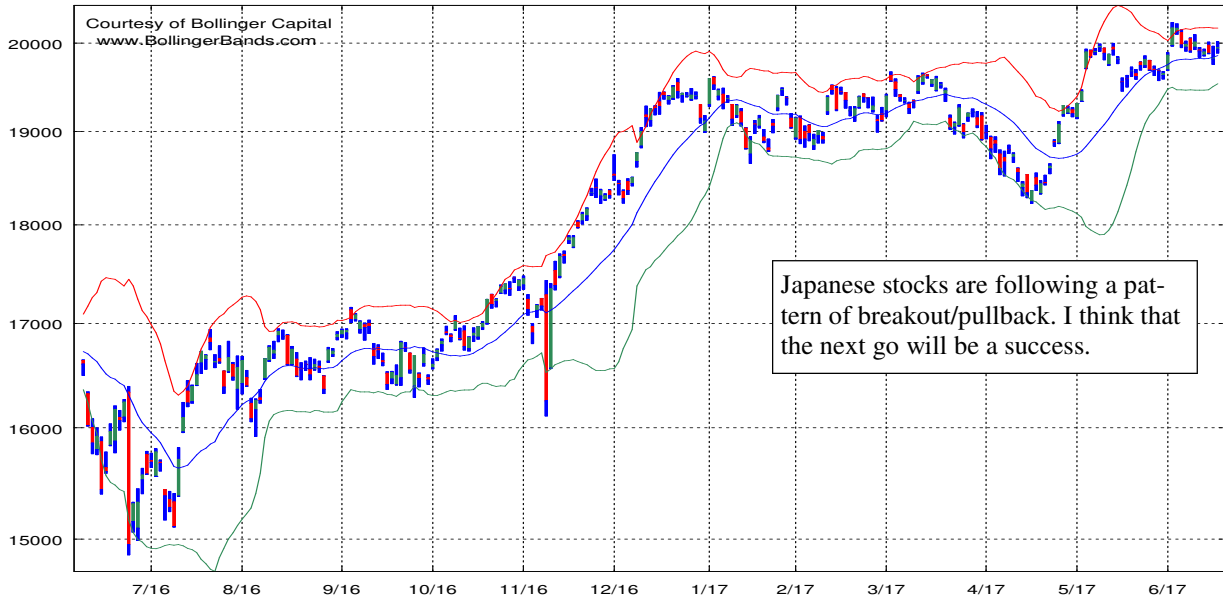
DAX — Daily — One Year

often than not true about commodities, another area where Bollinger Bands are quite popular.

In any case, I have made several good market calls (top, bottom, top) in Bitcoin this year using nothing more than Bollinger Bands, %b and BandWidth, which was an interesting and satisfying demonstration of the power of these tools.

For me the most interesting aspect of Bollinger Bands is that virtually none of the forecasting power of BBs and the related tools has been diluted over the years, despite

dire warnings from the cognoscenti that such power was either illusory or would be arbitrated away. I believe that is because BBs were built upon first principles ideas. I am always fascinated when I see peoples' eyes glaze over when I start to discuss the power of first principles. Even more interesting is seeing the big-data crowd actually get angry when first principles are introduced and the power of optimization downplayed. Ah, 'tis for each of us to walk their own path, as Robert Frost so beautifully put it in "The Road Not Taken".



Nikkei 225 — Daily — One Year

## Interest Rates

The least loved people in the finance business today have to be bond brokers. Smart investors driving their portfolios looking backward, then forward, have to acknowledge a couple of things, neither of which suggests loading the trunk with bonds. First, it looks like a multi-decade bull market in bonds has ended. It started in '81/'82 and ran for better than 30 years, ending only when shorter-term interest rates crossed into negative territory and bond yields flirted with the idea of zero yield. Second, inflation is first and always a monetary phenomenon and the monetary pumps have been running at full bore for a long time. So bond investors have a towering bull market in the rear view mirror, incipient inflation in the windshield, and financial shenanigans of all sorts to the sides. So, when the phone rings and caller ID announces 'Joe the bond broker', flip goes the phone.

This week the yield of a three-month Treasury bill hit one percent for the first time since October of 2008. Think of it! 10 years of negative real yields. Retirees impoverished. Fixed incomes crushed. Retirement plans trashed. Widows and orphans left without income. The elderly shoved into an abyss. I could go on, but I think the point is clear. Time to muzzle the Fed and let the markets set interest rates!

## Ice Breaker

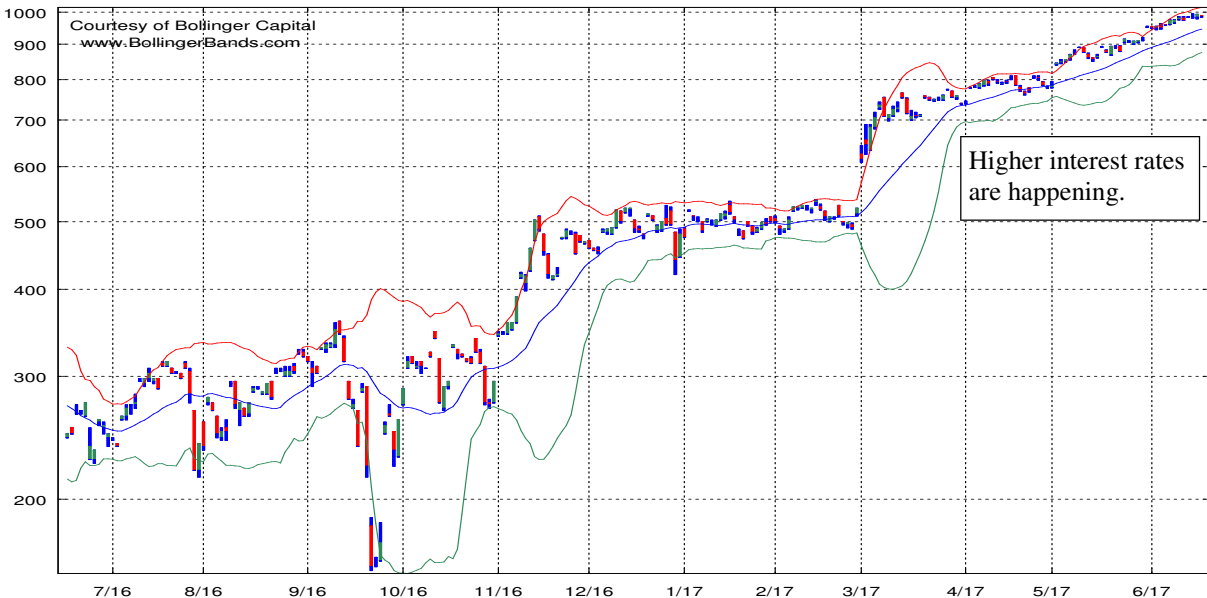
A reader asked about several aspects of Ice Breaker. Recall that Ice Breaker was originally a system to trade QQQ and was initially extended for diversification purposes

to cover SPY and DIA. Later IJR and MDY were added to the coverage on [www.bollingerbands.com](http://www.bollingerbands.com). There are two unique aspects to Ice Breaker. One, it is very hard to track its performance because it can take more than one position at the same time—up to three in the default approach. The performance we report is the chained returns of all trades, some of which overlap. We make no assumptions about allocation of capital to the trades, so your results will almost certainly vary driven by your allocation decisions. The following are chained performance numbers for five tracked ETFs over the past two years along with the number of trades made for each.

DIA	15.55%	20
IJR	66.98%	25
MDY	38.26%	23
SPY	33.22%	22
QQQ	89.98%	24

On average a bit less than a trade a month. The out-performance of IJR and QQQ makes sense as they were the darlings of the past two years and buying the dips in those two ETFs was in fact the thing to do. I am frankly surprised by the relative under-performance of DIA as it has done well before, but that also makes sense as those stocks have not had darling status. SPY is currently a laggard for this approach, though 15.4% annualized is not too shabby; again that makes sense as the S&P has lagged the indices that track smaller stocks.

The second unique thing about Ice Breaker is a tactic. In



13-Week Interest Rate Index — IRX



Gold Bullion Futures — GC — One Year

the beginning Ice Breaker traded only the QQQ. The first change for Ice Breaker was not the addition of DIA and SPY, it was the implementation of using Ice Breaker signals to trade other, more volatile securities; initially QQQ signals to trade Apple's stock, AAPL. In my opinion, this is where Ice Breaker can really be made to shine. The idea was to scan the NASDAQ 100, the index that QQQ is based on, for trading candidates. First apply a liquidity filter to assure tradability, then select the most volatile of the remaining stocks. Then trade those stocks based on Ice Breaker QQQ signals. This approach can improve Ice Breaker's performance

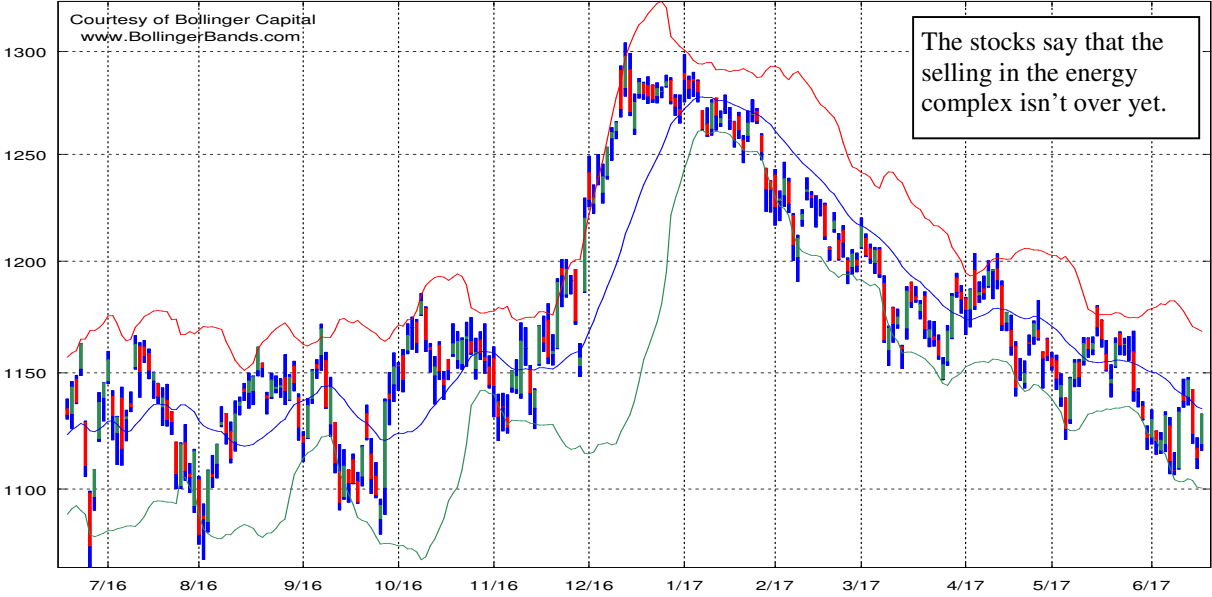
dramatically.

The next part of our reader's question had to do with using options for Ice Breaker. By that, I assume that he meant the purchase of call options. That is not likely to work as implied volatilities are likely to be high at the time of an Ice Breaker signal. Therefore options will be expensive and the erosion of premium due to the subsequent decrease in volatility is likely to at least partially, and perhaps completely, offset the gains in value from the rally. There is another approach to that idea, the sale of put options. That is more likely to work, but involves



Gold Stock ETF — GDX — One Year





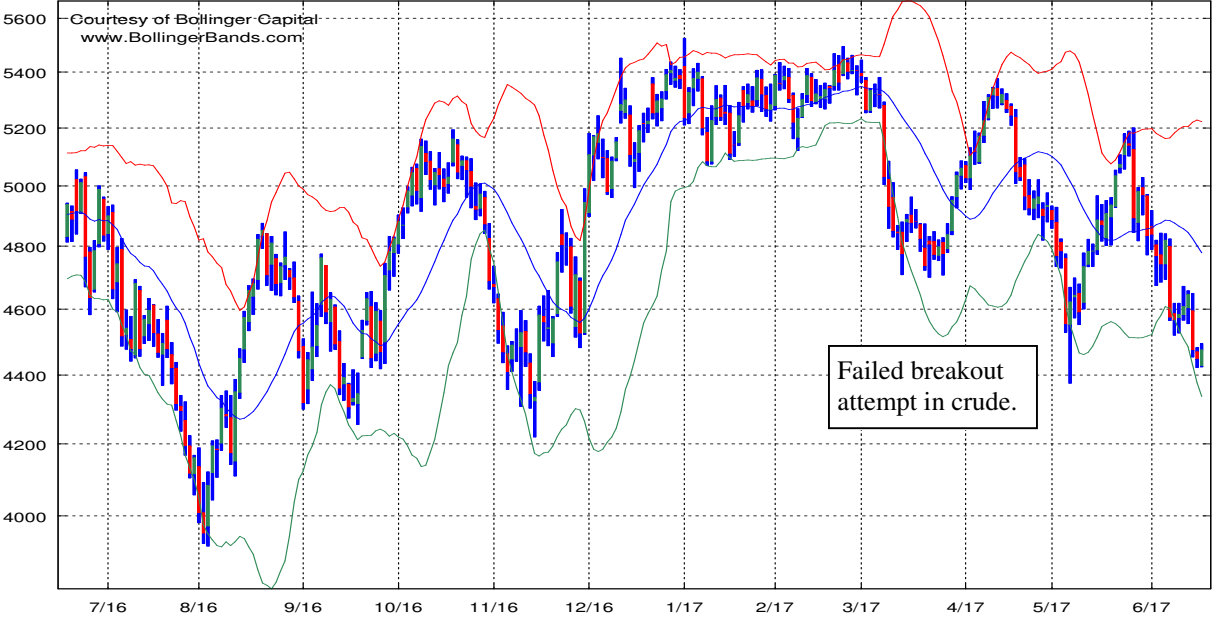
Energy Stock Index — XOI — One Year

exposure to substantial risks. Anyone considering that approach would need to be fully aware of the risks undertaken and prepared to control those risks should the trade go against them. In other words, such activity is best left to disciplined professionals who are fully informed, disciplined and prepared.

**Energy**

With crude oil retesting its lows it is time to consider

whether I am wrong in my outlook for energy stocks. I have long been of the opinion that the energy stocks were a long-term accumulate, buy on weakness and wait, sector. However, the environment is changing. Fracking has brought a plentiful supply of cheap natural gas on line, and wind, geothermal and solar are making progress. There is little in the way of solace for the sector from the performance of the stocks, which have remained under steady selling pressure. The only ray of light is the stock yields, which for many of the best companies are in the six to seven percent range. A little



Crude Oil Futures — CL — One Year

while ago that would have been of great comfort, but with investors now starting to think about higher interest rates the yield advantage of these stocks may be diminishing. All that has me scratching my head, wondering if the balance hasn't shifted far enough for us to abandon the sector?

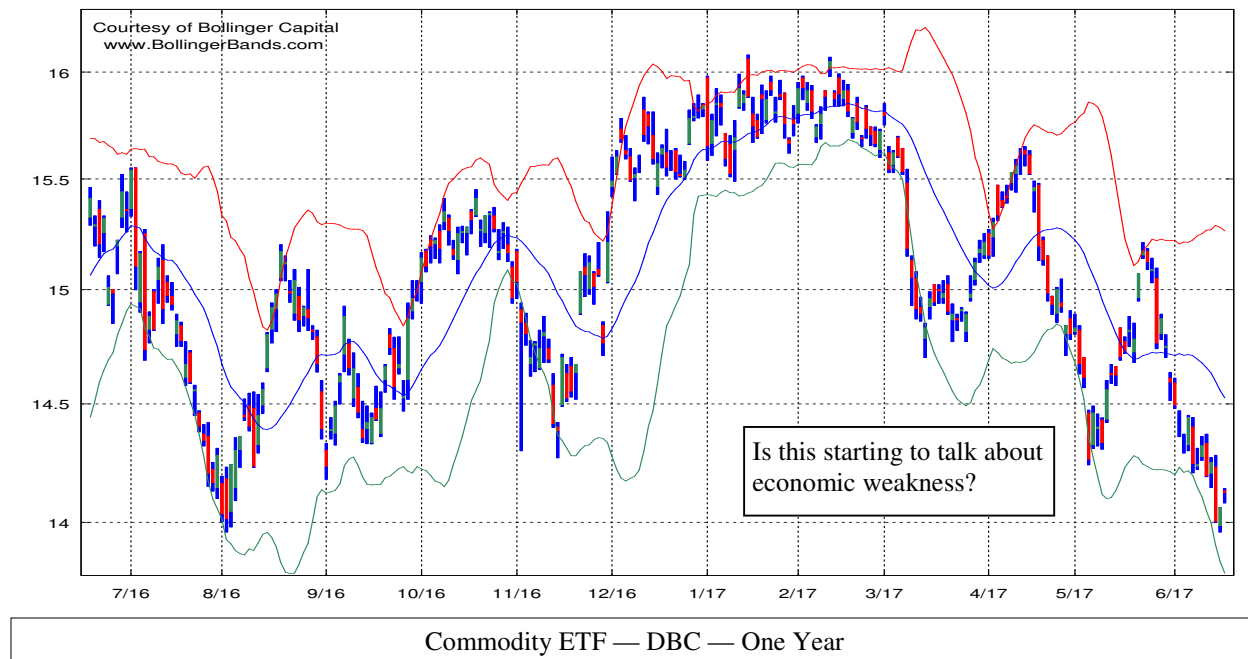
The trouble with long-term strategic opinions like this one is that they are hard to let go of and the market conditions that precipitate the reevaluation are anathema. No one, least of all me, wants to sell into the lows and I don't think that we should do so. Rather, I think that it is time to move from a posture of buying weakness in the energy stocks to selling strength. Time to move on to other groups and sectors that have better prospects.

### Bollinger Bands

Bollinger Bands turn 35 this year. That is an approximation as I don't recall the precise date, but I do remember where I was when I created them, at a desk at AG Becker. I arrived there in the fall of 1982. I've never thought of this before but Bollinger Bands share some important birth years: The great bull market that ran into 1998 was born in 1982 and increased stock prices by a factor of 10 over its life. 1982 saw the birth of stock-index futures. Happy birthday BBs! May you continue to have happy users and a long and profitable future.

### View from the Beach

I agree with Mr. Kahneman that we lack a sense of progress. For me progress slowed with the bursting of the Internet bubble and 9/11. However, I do not think that all is lost. Rather I think that this sense of a lack of progress, of being washed back and forth by events, is cyclical in nature and that we are coming to an end of that phase of the long-term cycle. If you look back at the period from 1966 to 1982, there was a similar sense of despair. Inflation was consuming our wealth, the Vietnam War was killing our children, the Arab Oil Embargo was threatening our future. Nixon, Ford and Carter were our presidents, rolling bear markets kept stocks from making any progress, soaring interest rates swapped inflation for stagflation. In short, it was a sorry state of affairs. Then Paul Volker became Fed chair and Ronald Reagan was elected President, the healing began and so prosperity returned just when everyone thought it wouldn't. Today the problems are different, but in general the situation is the same. Terrorism, political strife, income inequality, low wages, intense foreign competition, stagnating stocks, illegal aliens, warfare in Afghanistan and the Middle East, political discord, the destruction of traditional values, blurring of gender lines, political correctness and governance paralysis are the problems of the day. Yet, I feel that the end to this morass is near, that we are leaving the consolidation phase of this long-term cycle and entering into the expansion phase of the next cycle. Unimaginable? Hardly. Possible? Absolutely.





## Appearances

The San Francisco Money Show  
 San Francisco, CA, August 26, 2017  
 The History and Practical Application of Bollinger Bands

<https://www.moneyshow.com/events/conferences/the-moneyshow/moneyshow-san-francisco/?scode=043014>

IFTA 2017  
 Milan, Italy October 13-15, 2017  
<http://www.ifta-conferences.org/>



Bitcoin versus the US Dollar — XBTUSD—One Year

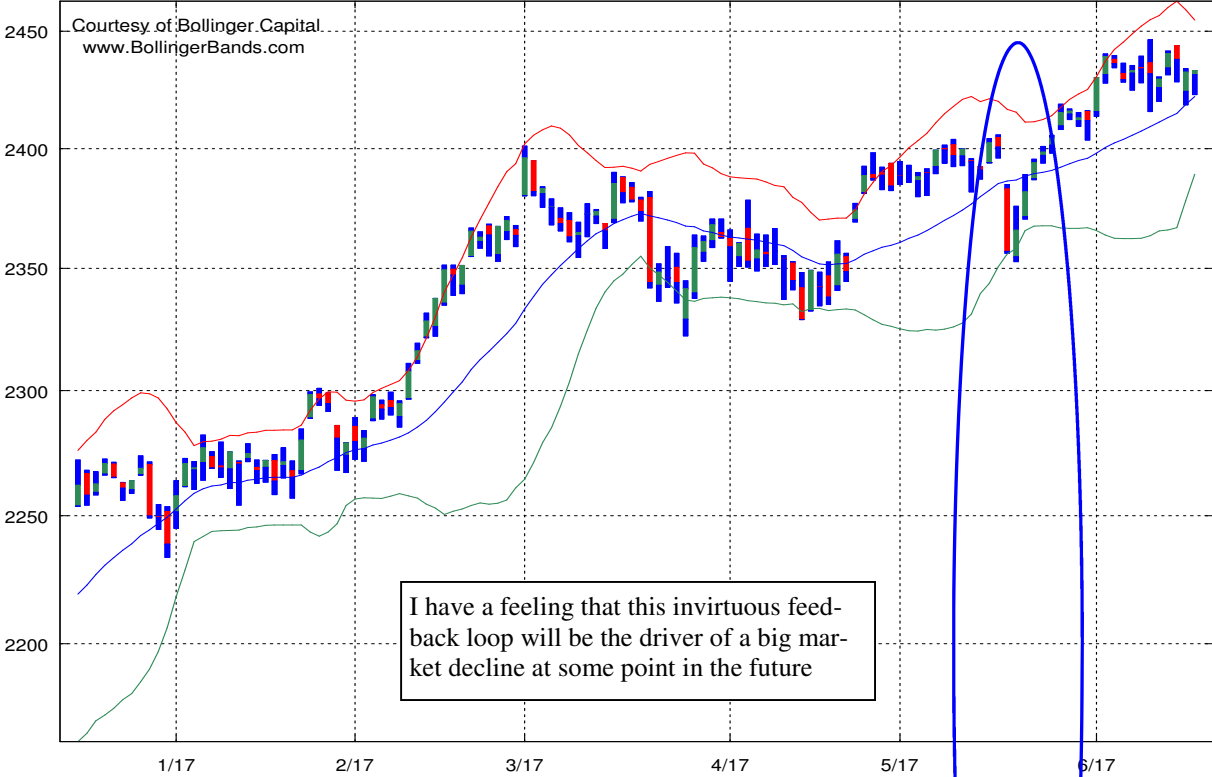
ETF Portfolios	Symbol	Date	Purchase Price	Current Price	Dividends	Return	Rank
		Selected					
<b>Style</b>							(# in 21)
Core Growth	IUSG	4/24/2017	46.87	48.64	0.00	3.78%	1
Russell 1000 Growth	IWF	2/10/2017	111.06	119.50	0.33	7.90%	3
Russell 1000	IWB	1/27/2017	126.69	135.68	0.56	7.54%	4
<b>International</b>							(# in 24)
Austria	EWO	1/20/2017	17.26	21.12	0.00	22.38%	2
Spain	EWP	4/7/2017	29.85	33.33	0.00	11.66%	8
Netherlands	EWN	5/6/2017	28.91	29.34	0.00	1.50%	1
<b>Sector</b>							(# in 27)
Technology	XLK	3/3/2017	52.51	55.25	0.21	5.61%	9
Software	IGV	4/17/2017	125.88	135.83	0.00	7.91%	8
Semiconductors	SOXX	10/7/2016	113.43	144.76	0.64	28.19%	13

## Portfolio

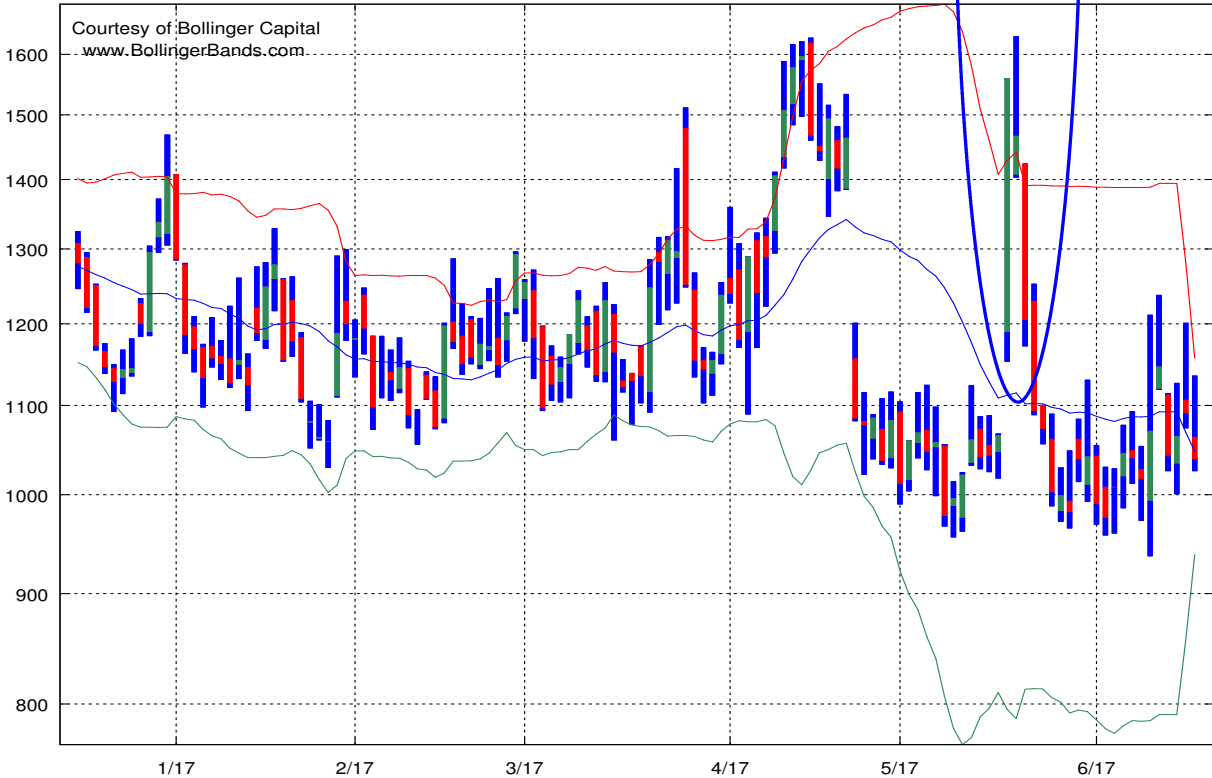
Slot	Name	Symbol	Entry Date	Entry Price	Current Price	Divid.	Total Return	Mental Stop	Action
Core Portfolio - US Equities									
1	S&P 500	SPY	10/19/15	203.20	242.64	6.78	22.8%	224.00	Hold
2	Russell 2000	IWM	11/02/15	118.21	140.19	2.74	20.9%	132.00	Hold
3	S&P MidCap	MDY	04/18/16	267.64	318.99	3.95	20.7%	300.00	Hold
4	Finance	XLF	10/08/16	19.75	24.29	0.19	24.0%	22.00	Hold
5	Russell 1000 (Equal)	EQAL	12/05/16	26.81	28.49	0.19	7.0%	27.00	Hold
6	Healthcare ETF	IYH	01/14/17	147.28	163.27	0.44	11.2%	148.00	Hold
7	Global Telecomm ET	IXP	01/14/17	60.09	60.95	-	1.4%	56.50	Hold
8	S&P Small Cap	IJR	03/17/17	69.35	70.07	0.22	1.4%	65.50	Hold
9	S&P 500 Growth	IVW	03/17/17	131.81	138.02	0.15	4.8%	124.00	Add
10	Royal Dutch A	RDS.A	05/26/17	54.63	54.45	0.94	1.4%	49.50	Hold
Core Portfolio - International									
1	Japan	EWJ	12/14/12	44.99	54.22	1.07	22.9%		Hold/Add
2	World	VEU	10/19/15	45.53	50.55	1.48	14.3%		Hold
3	Int'l Property ETF	WPS	05/26/17	37.43	38.34	-	2.4%		Hold
Core Portfolio - Yield									
1	Barclays High Yield	JNK	02/20/09	29.17	37.07	21.38	100.4%		Hold
2	iShares High Yield	HYG	02/20/09	69.98	88.15	42.76	87.1%		Hold
3	PS Finan. Preferred	PGF	03/13/09	8.35	19.00	9.92	246.3%		Hold
Core Portfolio - Speculation									
1	VIX Inverse	XIV	10/06/15	27.29	82.43	-	202.1%		Add

**Portfolio Notes:** There is a lot of noise in this rally, a lot of see-sawing back and forth. All of which makes it harder for the portfolio manager and I suspect that is where much of the disgruntlement and bearishness is coming from. The Value Line Plan remains in the market with the Value Line Geometric Index standing at 520.93 and a Friday sell stop sitting at 511.98. There are no changes to the ETF portfolio this week. Smaller stocks pulled back a bit while value bounced last week, more noise than anything else I think. Looking at our Core portfolio, you can see the effects of the noise. Time for some portfolio dressing up; most likely via the next two hotline messages. The bottom line is that our outlook for stocks remains constructive. Have a great summer!

John Bollinger's Bollinger Band 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](http://www.BollingerBands.com) E-mail: [BBands@BollingerBands.com](mailto:BBands@BollingerBands.com) Subscription rates: \$39/month, \$419 a year 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. Entire contents copyright 2017, Reproduction of any kind, including photocopying, reposting or redistributing without express prior permission from Bollinger Capital Management, Inc. is unlawful and strictly forbidden.



S & P 500 — SPX — Six Months



The CBOE Volatility Index — VIX — Six Months