



QUANTITATIVE  
FINANCE  
SOCIETY

# INVESTOR LETTERS

## FALL '16

[www.quantfsnyu.com](http://www.quantfsnyu.com)

Our Mission: To provide a platform for education about markets and trading, whereby members can learn about all different types of investing strategies and the various qualities / attributes of different asset classes.

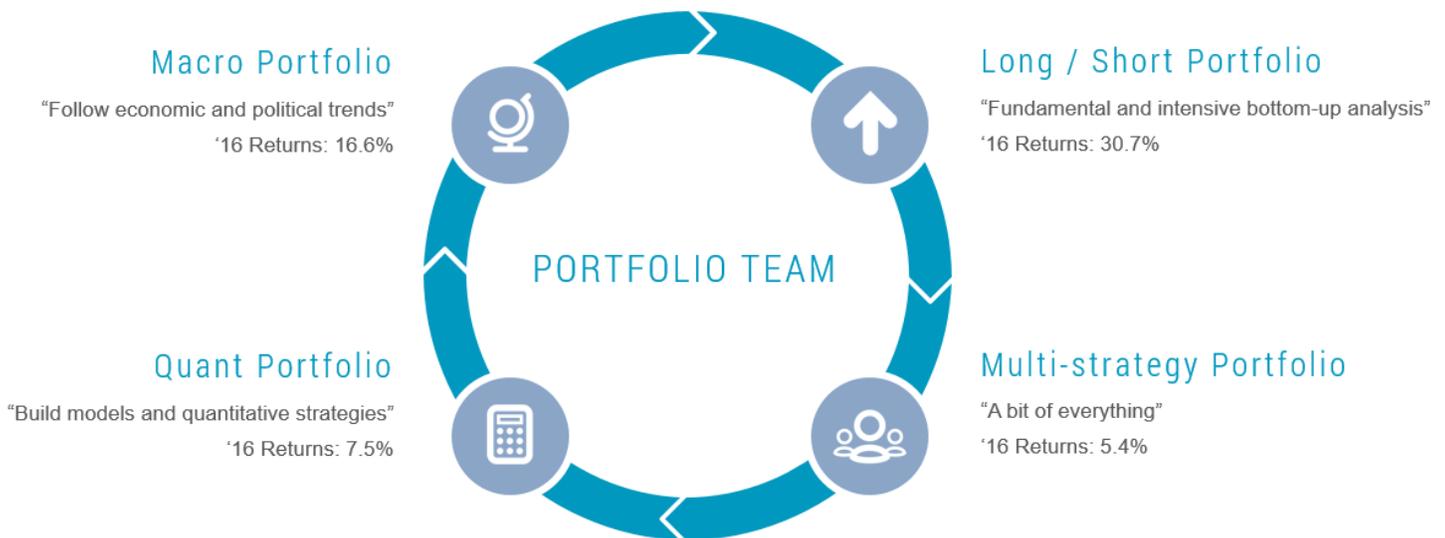
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# QFS AT A GLANCE

Quantitative Finance Society is a markets-focused, multi-asset class, and multi-strategy student-run investment organization. We operate under a dual mandate of 1) Extensive financial training for general members and 2) Trade idea development by portfolio team members.

Our portfolio team is split amongst four strategies: Macro, Quant, Long/Short, and Multi-strategy.



# INTRO LETTER

Dear Investors and Mentors,

Attached below are our investor letters across the four portfolio teams that we currently run, which we have composed and published for the first time in a number of years. During 2016, our four core strategies all performed well with positive returns across each strategy, while generally maintaining beta and duration neutrality across each strategy. These returns also came across a variety of different asset classes, as we traded actively in equities, single-name and sovereign credits, futures, options, credit derivatives, commodities, rates, and currencies.

Throughout 2016, we saw a number of large macro events drive asset class returns, most of which we were careful to sidestep, but all of which influenced our positioning and trade theses into 2017. During the beginning of the year, we experienced the crash and subsequent rally in energy prices, which drove large, volatile drawdowns and recoveries in equities and high-yield bonds along with a market that worked to absorb the first Federal Reserve interest-rate hike since 2006. As the year went on, the geopolitical environment experienced a wave of nationalism and isolationism in the developed world that marked a significant shift from the globalization of the years' prior, categorized by the United Kingdom's successful referendum vote to leave the European Union and the surprise election victory of Donald Trump in the United States. While we were neutrally positioned going into them, these surprise events, as well as a Federal Reserve interest-rate hike at the end of 2016, have created significant dispersion across asset classes and between sectors, and we believe that our exposure-neutral, fundamentally-driven strategies are structured to perform well in this environment.

While the portfolios in aggregate performed objectively well, especially in the context of our generally market and duration-neutral strategies, certain idiosyncratic errors detailed in the letters below kept our performance less than perfect, and leave us with a lot of room for improvement. Additionally, certain strategies, such as our Quantitative and Multi-strategy groups, underperformed in 2016, and although we have refined our investing process in those strategies to more carefully select positions and allocate risk, we still have yet to see the improvement play out. We welcome any additional feedback that you may have for our teams based on the commentary, and are always open to suggestions towards our own learning and development.

We would also like to take this opportunity to update on personnel, as we have had quite a few changes over the past semester on that end. While we have new additions to the team, we would like to thank our graduating seniors, Akshay Ramachandran, Weison Lin, and Embert Lin, for their contributions to QFS throughout their undergraduate career. We are grateful for their mentorship and friendship, and we wish them the best with their post-graduation plans.

As always, we stand by ready for questions, and are available by email at [qfs@stern.nyu.edu](mailto:qfs@stern.nyu.edu).

# GLOBAL MACRO

Dear Partners,

QFS Global Macro ended up 16.6% for the year ended December 31, 2016 and 10.0% for the semester. Below outlines our positions and key themes that our portfolio capitalized on.

## Major Themes & Trades

### Emerging Markets:

Emerging markets posted strong returns in 2016 in general, as a risk-on mentality and search for yield continued to persist across multiple asset classes. We were able to monetize this outperformance in emerging markets through creating and investing in a basket of various country-specific ETFs. Our constructed basket placed particular focus on Argentina and Brazil, which we believed would outperform heavily due to political regime change and market sentiment shift. We also had allocation towards Saudi Arabia and Russia, among others. We were fortunate to take off the majority of our EM positions before election uncertainty and risk really set in, and were thus able to lock in the majority of our profits at good levels.

### Rates and Inflation:

Our rates portfolio had mixed success over the year. Fundamentally, we had a hawkish view throughout the year compared to market expectations, which we expressed multiple times through Fed Fund Future steepeners and Treasury bond futures. However, this view did not come to fruition several times, as markets continuing to price in a more dovish Fed. Unfortunately, when market expectations finally materialized (due to the unlikely catalyst of Donald Trump's election), we did not anticipate the magnitude of rise in yields post-election and were only able to monetize part of the selloff.

We also believed breakeven inflation at various maturities, a proxy for market's inflation expectations, to be too low to make sense. We bet on this view through shorting 5Y Treasuries while longing 5Y TIPS, believing it to be most exposed to the factors we had greatest conviction on and also to reduce transaction costs of bid-ask. We were able to monetize some of the profit, although again, we missed out on much of the meteoric rise in market-implied breakeven inflation that happened due to Trump's election.

### Currency Pegs:

We identified possible risk of the currency pegs falling in Egypt and Nigeria due to declining foreign exchange reserves and various political factors. We were able to successfully monetize this view through shorting non-deliverable forwards of the currencies versus the US dollar, the currency they were both pegged to.

### Trump:

In the days before the election, we took most of our existing positions off due to uncertainty, and in order to hedge out the unlikely risk of a Donald J. Trump win, we kept several positions on that we thought provided a

good payoff opportunity as well. While everyone else already had Hillary Clinton penned in, we saw it as an opportunity to reap any asymmetric risk/reward in the event of a surprise. We did this through a short DXY position as well as a long VIX position. We also put on several VIX steepeners when we saw backwardation in the futures curve, betting on it moving back towards contango. All of our Trump election night trades proved to be profitable, as our bet on a tail risk event came to fruition. However, that being said, we unfortunately missed out on a lot of the Trump trades and trends that occurred post-election, such as rates selling off and equity sector-specific outperformance.

#### General FX:

Our FX portfolio had mixed performance over the year. We were able to profit off of general dollar strength in the latter half of 2016. However, we lost money on short EUR and JPY positions that we instituted in the beginning of the year, as the fundamental factors we cited were already priced in and well understood by the market. We also faced drawdowns on our long MXN position, initiated near the beginning of the year, which we primarily attribute to our lack of understanding of MXN's use as an EM hedge and overestimating of the Mexican central bank's intervention power.

#### **Macro Themes for 2017:**

##### Trump in Office:

With Donald Trump now in office, uncertainty about his presidency will continue high. Several key things on the table include his promise on fiscal stimulus, lowering of corporate tax rates, and protectionist policies. One thing for sure is that markets have been extremely bullish on growth under Trump ever since he became president-elect. We are a lot more cautious about Trump promises and, even if he follows through, whether or not the policies actually materialize is another question.

##### China:

Throughout 2016, the Chinese government worked to curb capital outflows, and we see that trend persisting in 2017. The large, fundamental question in China surrounds the transition that the Chinese economy is currently trying to go through. Turning an export based manufacturing economy to one that relies on domestic consumption as well as the service industry is a hard thing to do, and with protectionist policies being enacted in major trading partners (potentially the US), it becomes hard to fit the narrative of relying on exports to weather through such a transition. With ambitious projects like the New Silk Road stretching all the way to London, it seems like China is grasping at everything it can to keep the growth train chugging. Further headwinds from a rapidly aging demographic as well as the other problems mentioned in the second sentence, sets the stage for 2017 to be a tough year for China.

Best,

Global Macro Portfolio Team

# LONG / SHORT EQUITY

Dear Partners,

QFS Long/Short ended up 30.7% for the year ended December 31, 2016 and 27.0% for the semester. While we plan to keep at most times a market neutral weighting of the portfolio, we became 40% net long in November and closed the year slightly net short. A bulk of the returns came in the second half of the year due mostly to more capital being deployed in both long and short positions as a result of a better opportunity set in the after-effects of the election. While our returns on the surface appear very positive, we will not report our personal performance as such given the influence of a fleeting phenomenon – chance. While this is not to say we make any investments without a basis on extreme fundamental value (or utter lack thereof on the short side), we saw the spreads between market prices and fundamental value of most of our positions collapse on an accelerated timeframe. At other times, we saw proposed investment ideas made simply not actionable due to the market rapidly correcting any value divergence. We think the takeaway here is simply that there is significant competition to our business of stock picking. Not only is capital more concentrated, but so is the talent and drive in our peers.

What worked well this year, as a result, was having significant price discipline with our investments. This also meant that we stepped up the rate of idea generation and research to complement an increasing rate of “off-plate” moments.

A renewed focus this year was to not only generate returns based off of divergences between price and intrinsic value of securities but also from the peculiarities of the structure of securities themselves.

We held and still currently hold positions in a series of warrants, most notably LINDW, that were created through various SPAC transactions. Warrants created through SPACs are generally used as incentive pay. Following the combination of a “blank-check” company (SPAC) and a private operating business, publicly traded warrants are issued to certain unit holders & management with the rest (<50% of overall warrant float) becoming publicly traded. As a result, warrants created through SPACs are often quite illiquid (<\$15K daily trading volume) and extremely under-followed – causing the securities themselves to be undervalued (low implied volatilities). When paired with an undervalued operating business, this cheap leverage provided by the structural undervaluation of warrant securities makes for significantly skewed return profiles.

We found a similar opportunity in November to purchase cheap call options on Quorum Health Corp (QHC). Quorum operates in a sector prone to significant swings in investor enthusiasm; it also happened to be the most levered of the bunch and lacked an established investor base having spun out from Community Health in the first quarter of 2016. While Quorum rebounded triumphantly post our purchase we stood to actually make money on the call securities themselves (as IV *increased* as the underlying rebounded – a feat often unobserved). On only a 50bps outlay, this positioned contributed 180bps to overall portfolio returns.

Our traditional equity investments performed well.

On the long side, we mostly made money whenever uncertainty was misconstrued as imminent risk. We made investments in a pharmaceutical company undergoing re-contracting negotiations with the CDC, an emerging market telecom after the completion of an insider's stake sale, and an embattled casino operator overhung by an uncertain future political action.

#### **Top 5 Longs**

TPCA	TROPICANA ENTERTAINMENT INC STOCK	2.7%
CWH	CAMPING WORLD HOLDINGS INC COM CL A	2.4%
ZIXI	ZIX CORPORATION COM	2.0%
QHC	QUORUM HEALTH CORP COM	1.8%
VIP	VIMPELCOM LTD ADR	1.6%

While we have no losses to report on any of the long positions, one area of underperformance to point out is our lack of better dynamic position sizing. We could have taken advantage of swings in the healthcare sector to increase our position in Emergent BioSolutions (which moved consummately with the market yet has very little fundamental bearing to general market conditions or the political climate for the healthcare industry).

On the short side we mostly made money off market exuberance. The starkest example may be Peabody Energy – in which the market's addiction for hope got swept up in a short squeeze fueled initially by an increase in met coal prices. We were prudent to only initiate the short at levels out of any comprehensively fundamental bearing. While the unsecured notes traded for less than 40 cents on the dollar, we sold calls implying a ~20% probability of significant (~\$1bn) leftover value for equity-holders. The company has just a week ago declared the common equity worthless.

#### **Top 5 Shorts**

AVXL	ANAVEX LIFE SCIENCES CORP COM	2.0%
ACIA	ACACIA COMMUNICATIONS INC COM	1.1%
BTUUQ	PEABODY ENERGY CORP COM	1.0%
ACAD	ACADIA PHARMACEUTICALS INC COM	0.5%
SIG	SIGNET JEWELERS LIMITED COM	0.3%

The only major loss on the short side was our position in Deere (DE) which saw a newly invigorated investor base post-election. We remain short, balancing in mind what is factual and likely versus what is fleeting and hopeful.

Looking forward into 2017 we hope to keep a slightly more concentrated book. We invested in a total of 54 positions including hedges over the latter half of the year; this extreme churn was mostly due to the

transpiring of numerous smaller scale mispricings. We continue to deploy capital in the small to midsized biotech sector, as it continues to be overlooked by most sophisticated value investors. We look for situations prone to ebullience on the short side and unheeded pessimism on the long side.

An investment we think will contribute meaningfully to our 2017 returns is Itasca Capital, a Canadian holding company. While a bit small even for our appetite, Itasca Capital presents an opportunity to invest alongside Larry Swets, a savvy investor, who has orchestrated Itasca as a security set to triple in a clear-sky scenario, double in a run-of-the-mill scenario, and retain 90% of its value in a doomsday scenario. Itasca Capital owns a significant interest in Limbach Holdings, a security recently made public through a SPAC transaction. While the value of the equity holding is accounted for on Itasca's balance sheet, the balance sheet does not capture preferred and derivative securities which Itasca, through various entities, owns. Tallying up the value of these "off-balance sheet" securities and marking-to-market the equity stake reveals a tangible book value 50% greater than what is reported. Making the investment more palatable is the presence of significant NOLs shielding investors from unnecessary taxation, a management team which takes no direct fees, and a "put" on the effective interest in Limbach of \$10m – which is to be liquidated in cash accruing at 1% each month after five years at Itasca's discretion.

Best,

Long / Short Equity Portfolio Team

# QUANTITATIVE

Dear Partners,

QFS Quant ended up 7.5% for the year ended December 31, 2016 and 3.5% for the semester. The following is a summary of our main strategies running this past semester:

## **Gold/Silver Pairs Trading**

This strategy is a market neutral strategy that trades Gold and Silver iShares ETFs to exploit the cointegration between Gold and Silver. The cointegration can be confirmed using a Dickey-Fuller test; the results are significant enough to trade assuming a cointegration between the two commodities. The predicted Gold/Silver Ratio is calculated using an ARIMA model, using a linear combination of past errors and past values. The parameters were chosen for the model using the Autocorrelation, Partial Autocorrelation functions of the time series and the AICc of the resulting models.

In order to choose the entry and exit bounds of the trading strategy (the bounds can be seen as a “margin of safety” for how mispriced our model is saying the ratio is before we place a trade) we can check the historical performance of our strategy using a backtest. We backtest the strategy using all the different combinations of values for the enter and exit bounds and then choose the strategy that provides the best Sharpe (a measure for tracking performance by taking returns and adjusting them by risk – which is measured by how consistent your returns are). The bounds that we chose were also from “stable areas”, meaning that similar bounds result in the same performance during the backtest.

## **P2P Credit Rating Model**

Advances in financial technology over the last 10 year have allowed for novel sourcing, structuring and innovation of consumer financial products. Subsequently, we have observed both enhanced liquidity in select products as well a proliferation of structured and unstructured data regarding them.

A prime example is the middle-maturity peer to peer credit segment, where category leaders such as Lending Club and Prosper have unlocked access to over \$30 Billion dollar in additional capital and in the process generated massive data sets. Because these markets generate revenue from loan origination and do not bear credit risk, they are incentivized to provide minimum viable credit models to ensure liquidity and regulatory approval. As such, upside potential exists in the optimal pricing of this credit risk.

We observed this characteristic mispricing in historic loan data and constructed a family of linear credit model to predict loan yield. Utilizing combinations of over 120 data fields from over 300,000 loan from 2007 to present provided by these marketplaces we constructed and optimized the initial model via Best-Subset. In subsequent refinements, we utilized Principal Component Regression (PCR) to capture the optimal linear combination of variance from each interaction specified in the initial model.

To further bias against high credit risk, we utilized the same data to estimate a default risk model via Linear Discriminate Analysis (LDA) and produce a Default Weighted Yield for each loan. We improved this screen by replacing LDA with Logistic Regression which allowed for more realistic assumption regarding error distributions. The final Default Weighted Yield model performed robustly in and out of sample with a final portfolio yield of 13.47%.

We further discussed practical matter of implementation, particularly in the secondary market. Finally we observed potential shortcomings of the model and areas for future investigation; namely the need to account for prepayment risk and the inclusion of alternative data sources.

### **Commodities Spread Strategies**

One of the staples of our portfolio is a mean reversion strategy on the 2-1-1 cattle crush spread – buy (sell) 2 contracts of live cattle, and sell (buy) 1 contract of feeder cattle and 1 contract of corn) – and the 3-2-1 crack spread – sell (buy) 3 contracts of WTI crude, and buy (sell) 2 contracts of RBOB gasoline and 1 contract of heating oil.

Over the course of the semester, we entered 2 tightening and 2 widening positions in the cattle crush spread, which in aggregate earned us (roughly) .85% of our book. However, the performance of each individual spread position was mixed; 3 of our spread positions would end up earning (on average) 1.1% of our book per trade, but our first cattle crush position of the semester, a widening spread entered on August 22<sup>nd</sup> and closed on September 27<sup>th</sup>, lost us 2.4% of our book.

Our crack spread mean reversion strategy had a better performance than its cattle crush counterpart. We entered 2 tightening and 1 widening positions in the spread that in total earned us 2% of our book; unlike our cattle crush positions, all 3 spread positions were closed net positive. However, we did experience much larger drawdowns during our holding periods with our crack spread strategy than we did with our cattle crush positions. In particular, we experienced drawdowns of nearly 10% of our book on November 1<sup>st</sup> due to both an explosion in the Colonial Pipeline that caused gasoline prices to rise dramatically and uncertainty over OPEC's decisions which resulted in falling crude prices; we were in a tightening position (long crude, short gasoline) at that time. Despite our large intraday losses, we trusted our strategy's mean reverting thesis and wanted greater exposure to gasoline following the idiosyncratic event, so on November 2<sup>nd</sup> we closed the heating oil leg of our position and entered a long 3 crude contracts and short 3 gasoline contracts spread; we earned back everything we lost by the 4<sup>th</sup> and ended up closing the position up 1% on November 8<sup>th</sup>.

### **Factor Model Development**

Currently the portfolio's factor model is split between four factors: size, value, profitability, and reinvestment. Rather than define a few factors to represent each category, the model uses principal component analysis to find the overlap or intersection of many factors within each category. Although the factor model's positions would have performed well in the post-election rally, we made a judgement call to avoid the uncertainty of being long small caps and short large caps, and closed the positions. Most recently, we split apart a value-driven equity factor model with 10 metrics spanning all categories of the income statement, cash, market cap, and enterprise value. Also, we plan on incorporating momentum into this specific value factor.

**Inverse Volatility Trade**

Under this trade we are using the XIV note to consistently sell medium-term volatility and capture the volatility risk premium as well as the roll of VIX futures when in contango. Holding the note on its own has a sharpe greater than 1 for its history, but there should always be a negative skew in returns. To deal with this, we tested whether momentum in short-term volatility is a predictor of hits to medium-term volatility. The signal would change the trade from 100% XIV to 50% VXX and 50% XIV. In the case that the momentum signal successfully predicted a volatility shock and the VIX curve moves to backwardation, typically appreciation of VXX exceeds the loss of XIV and the roll collected from VXX exceeds the roll paid on XIV. In the case that the signal fails at predicting the shock, roll collected from the XIV helps minimize the loss on VXX. Handling the periods of potential vol shocks in this way minimized the negative skew and improved the strategy's sharpe to 1.5. This is still the way we implement the trade, but alternatives to predicting changes in the VIX curve are being considered.

**Plans for 2017**

The projects we have in our pipeline for next semester include a factor-model on commodities futures, our version of risk parity, and a systematic carry index. As we create strategies that trade many different asset classes, an important project will be how we manage cointegration risk and sizing when multiple trades are on at once. We're also looking to standardize the way we backtest strategies in order to speed up the idea generation process.

Best,

Quantitative Portfolio Team

# MULTI-STRATEGY

Dear Partners,

QFS Multi-Strategy ended up 5.4% for the year ended December 31, 2016 and 1.0% for the semester. The portfolio was generally split amongst two different investing strategies: long/short equity and macro. On the fundamental equity side, analysts pitched ideas that focused on bottom-up analysis on companies. Every equity position is then beta-weighted so the portfolio maintains market neutrality. On the macro side, analysts pitched ideas that mostly focused on large event-driven market movements. 2016 was riddled with large sweeping macro themes, such as OPEC, the rise in populism, and monetary policy divergence, and our analysts attempted to capitalize on some of these events.

## **Position Review:**

Trade: Selling ATM (45.5 Strike) Oil January Puts

Date Initiated: 11/27/2016

Enter Price: 2.43

Exit Price: .45

PnL: +0.99%

Commentary: The trade was a bet on whether OPEC would official cut its output quota in November. We believed that OPEC would come to a consensus to cut and wanted to have long exposure on oil before the OPEC meeting concluded. In addition, our view was more nuanced – as we believed that the immediate impact was volatility to drop (spot/vol correlation and vol being bid up before meeting) and prices to increase. As a result, we wanted to monetize the trade by being short Vega and long Delta, and therefore sold puts to express the trade. Upon hindsight, the downside to using puts was being short Gamma and, though our macro view was correct, we weren't able to monetize as much because we were getting burned on Gamma. An alternative that may have been better upon hindsight would have been to be long Oil and short Oil VIX (OVX).

Trade: Gamma Scalping ATM (53 Strike) Oil March Straddles

Date Initiated: 12/2/2016

Enter Price: 6.95

Current Mark: 4.42

PnL: -1.82%

Commentary: This trade was the second portion of our OPEC trade. We had a view that OPEC would cut its output to save face, and that there may be greater problems down the road. With implied volatility dropping from 50% to around 35%, we decided to enter into an ATM Straddle position to gamma scalp and monetize the low volatility. We thought that OPEC countries may back out of what they stated verbally (saying they will cut, but not actually cutting), which is further pressured by increased production on the domestic end. However, implied volatility have continued to drop to below 30%. The lower vols attribute to around 20k of our losses while lower than expected realized volatility attributes to the rest of the PnL. The issue is that oil has traded range-bound from 52 to 56 since initiating this trade, which is a tighter range we expected oil to trade,

and no conflicts within OPEC have been reported. We believe the thesis still holds, but upon further hindsight, a further dated option could have been a better expression.

Trade: Oil Curve Trade (Short Aug'17 – Long Dec'17)

Date Initiated: 12/2/2016

Enter Price: -.02

Current Mark: +.14

PnL: +0.23%

Commentary: Following the OPEC decision, the term structure of oil futures changed greatly. One noticeable change was that part of the term structure reverted from contango to backwardation, implying a possible shortage of oil during the aforementioned period (from August 2017 to December 2017). While the OPEC decision will lead to less oil production on the international end, we believed that it wouldn't put much pressure on oil inventories anyways because of 1) increased production from US oil and 2) record current inventories. We believed the cut was too small and we simultaneously had the view that OPEC would face pressure to potentially avoid future cuts as domestic production increases. Though our profits are small now, holding this position until August 2017 would provide positive slide (free steepening due to time), so long as the curve is in contango. We have a view that so long as nothing extraordinary happens to oil supplies, we stand to make \$2.00 - \$3.00 on the spread leading to a 3%-4.5% of potential PnL.

Trade: Short PICO

Date Initiated: 11/16/2016

Enter Price: 13.90

Current Mark: 15.30

PnL: -0.42%

Commentary: We initiated a short position on PICO believing its water assets to be overvalued and misunderstood due to the complicated corporate holding structure. Currently we are down ~10% on the position, but the thesis still holds. We believe we will realize some gains upon the next reported earnings, which could drive the value down due to a possible writedown of book value of its Fish Springs Ranch assets. We remain cautious however, given that there is a concentrated shareholder base that could drive the stock price against us and lead to a potential short squeeze.

Trade: Short TWOU

Date Initiated: 12/2/2016

Enter Price: 33.16

Current Mark: 32.18

PnL: +0.15%

Commentary: We initiated a short position on TWOU believing the company to be overvalued due to unobtainable growth prospects and very concentrated revenues. TWOU has moved around a lot throughout our holding period, as recently, a report came out showing TWOU was misreporting numbers on its Simmons program. As a result, the stock dropped leading to a mark to market gain of about 10%. Following the report, TWOU has been gradually inching upwards again leading to a very small profit currently. However, the thesis still stands and we anticipate to realize the thesis during its next earnings.

Trade: Short November VIX

Date Initiated: 11/8/2016

Enter Price: 19.50

Closing Price: 22.25

PnL: -4.38%

Commentary: The trade thesis held, but was executed poorly in all ways possible, leading to our biggest loser, which could have been our biggest winner. The trade was to short volatility, as volatility spiked during the night of the elections. The thesis was to be bullish on Hillary Clinton winning the presidential election, and even if Trump becomes president-elect, that volatility will blow over in a couple of days after the event (using the situation with volatility levels during Brexit as a precedent). The issue was we closed the trade as volatility kept going against us, as Trump became more and more likely to win. Rather than holding the position following the news that Trump won the election, we closed at VIX highs of 22.25. The following morning VIX dropped down to 15, reinforcing the correctness of our original thesis. What could have been a 6.5% gain led to an 4.4% loss. However, our exit wasn't our only problem. The expression of the trade was poorly constructed as well, as a VIX steepener would have been a safer play.

Trade: Short Crack Spread

Date Initiated: 10/31/2016

Enter Price: \$56.44

Closing Price: \$48.18

PnL: +4.55%

Commentary: There was a pipeline explosion on October 31, 2016, in which the Colonial Pipeline that carries mainly distillates blew up. As a result, gasoline and heating oil ripped amongst fears on distillate supplies. We believed that the fears were overblown and, as a result, distillates were expensive relative to crude oil, and therefore initiated to short the crack spread. The trade was extremely successful, yielding our most profitable trade this semester. We were able to monetize this trade in two days after the explosion when the prices normalized back to pre-explosion levels.

Trade: European Banks (Long iTraxx Senior Financials CDS Index / Short Basket of US Banks CDS)

Date Initiated: 11/14/2016

Enter Price: 17bps Spread

Current Mark: 15bps Spread

PnL: -0.25% on 5mm Notional CDS

Commentary: With the turmoil of Brexit and the uncertainty of the fates of Monte Dei Paschi and Deutsche Bank, we bet that the CDS spreads of European banks were to widen at a greater rate than the CDS spreads of US banks. As Theresa May indicates more and more her unwillingness to compromise on Brexit, spreads should rise as the market prices in a "hard"-Brexit. In addition, with the rise in populism that will continue to be a trend in 2017 and possibly even further, we believed it was a cheap entry point to bet against the European banking system that could arise from the global populist movement. Our European Banks play is a long-term play that we anticipate to hold until December 2018. The risk is that if the spreads do not move during the holding period, we are paying 17bps a year to hold the trade.

Best,

Multi-Strategy Portfolio Team