



rareview
macro

sight beyond sight

Neil Azous
Founder



Risk Disclosure

The forthcoming presentation is for informational purposes only. The data shared by the presenters is believed to be accurate. **By continuing to view this presentation, you are consenting to hold the presenters, Rareview Macro LLC, Neil Azous, and their affiliates harmless for the outcome of any trades you put on as a result of viewing this webinar.**

Futures trading contains substantial risk of loss and is not suitable for every investor. An investor could potentially lose all or more than their initial investment. Risk capital is money that can be lost without jeopardizing one's financial security or lifestyle. Only risk capital should be used for trading and only those with sufficient risk capital should consider trading. Past performance is not necessarily indicative of future results. In light of the risks, you should undertake such transactions only if you understand the nature of the contracts (and contractual relationships) into which you are entering and the extent of your exposure to risk. Trading in futures and options is not suitable for many members of the public. You should carefully consider whether trading is appropriate for you in light of your experience, objectives, financial resources and other relevant circumstances.

Bio & Sight *Beyond Sight*



PEDIGREE

Goldman Sachs
Credit Derivatives

Donaldson Lufkin & Jenrette
Portfolio Management

UBS Investment Bank
Equity Derivatives

Navigate Advisors
Macro Strategies

[Bloomberg MCRO](#)

[View Newsroom](#)

[View Archive](#)

[Permissions/ Reprints](#)



rareview macro

sight beyond sight[®]

by Neil Azous

MORNING EDITION | October 29, 2015

Was this newsletter forwarded to you? [SUBSCRIBE NOW](#)

Table of Contents

[Risk Adjusted Return Monitor](#) | [Summary & Views](#) | [Top Observations](#) | [Model Portfolio](#) | [Data & News](#)

Risk-Adjusted Return Monitor

Cross-Asset

USD/IDR

USD/CNH

Foreign Exchange

USD/IDR

USD/CNH

Fixed Income

None

UK Short Sterling

Equities

Japan TSEREIT

Australia ASX 200

Commodities

Natural Gas

Gold

*Highlights the largest positive and negative risk-adjusted returns overnight.

Summary & Views

A New Time Line into the End of the Year and the Dominating Themes Have Been Outlined

- S&P 500 Valuation A Talking Point for First Time
- Federal Reserve
- Interest Rates
- The New Market Timeline
- New Trade – Mean Reversion – Long Natural Gas

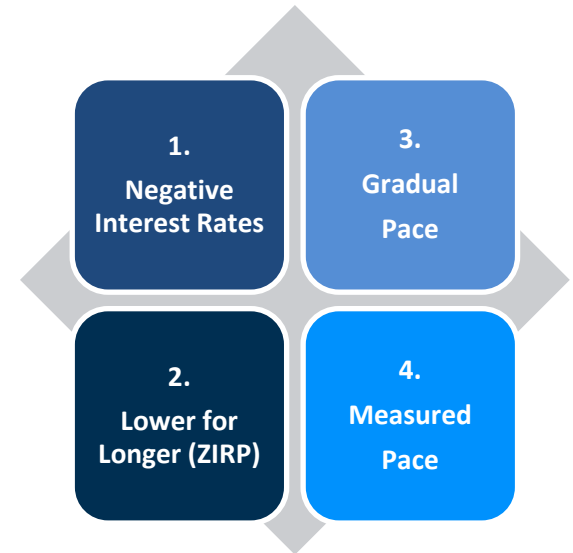
Trading Macro Events

1. Analyze the array of quantitative and qualitative data in a timely manner.
2. Know what aspects to focus on.
3. Understand to what degree the information will impact the asset class.
4. Understand how the market is positioned and what is priced in.

Four Quadrants

The interest rate hike story can be put into four quadrants. Here's how to think about each one:

- 1. Negative Interest Rates:** with both negative interest rates and additional asset purchases (i.e., QE).
- 2. Lower for Longer:** an extended delay in raising interest rates, or “one and done.”
- 3. Gradual Pace:** a more gradual pace of interest rate hikes, or about two per year – which equates to the market pricing the equal probability of an interest rate increase, decrease, or no move at each meeting over the next 18 months.
- 4. Measured Pace:** a measured pace of interest rate increases, or about three or more interest rate increases over a 12-month period.

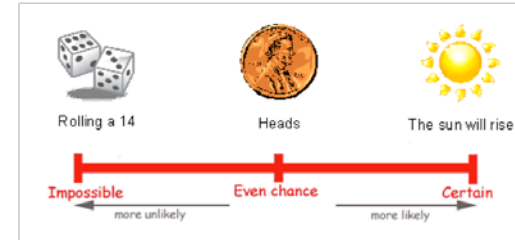


The Federal Reserve Tool Kit

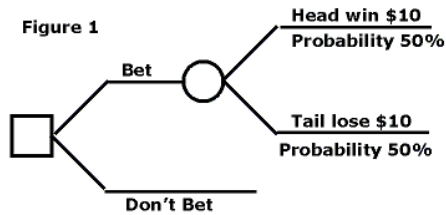
A Model

$$\int_{x_0}^{\infty} \tau(x) \cdot \frac{\partial}{\partial \theta} f(x, \theta) dx = M \left(\tau(x) \cdot \frac{\partial}{\partial \theta} \ln L(x, \theta) \right) \int_{x_0}^{\infty} \tau(x) f(x, \theta) dx$$
$$\int_{x_0}^{\infty} \tau(x) \cdot \left(\frac{\partial}{\partial \theta} \ln L(x, \theta) \right) \cdot f(x, \theta) dx = \int_{x_0}^{\infty} \tau(x) \left(\frac{\partial}{\partial \theta} \frac{f(x, \theta)}{f(x, \theta)} \right) f(x, \theta) dx$$
$$\frac{\partial}{\partial \theta} \int_{x_0}^{\infty} \tau(x) f(x, \theta) dx = \int_{x_0}^{\infty} \tau(x) \frac{\partial}{\partial \theta} f(x, \theta) dx$$

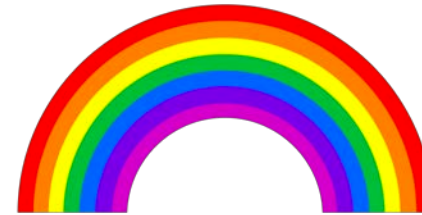
A Probability Framework



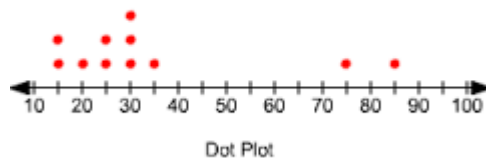
A Decision Tree



A Rainbow



A Dot Plot



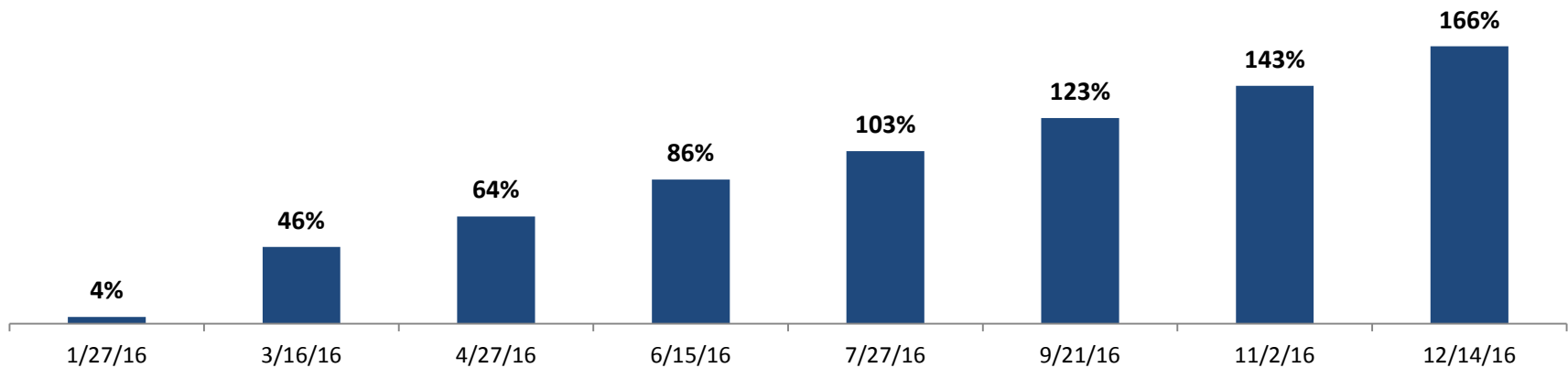
A Game Plan



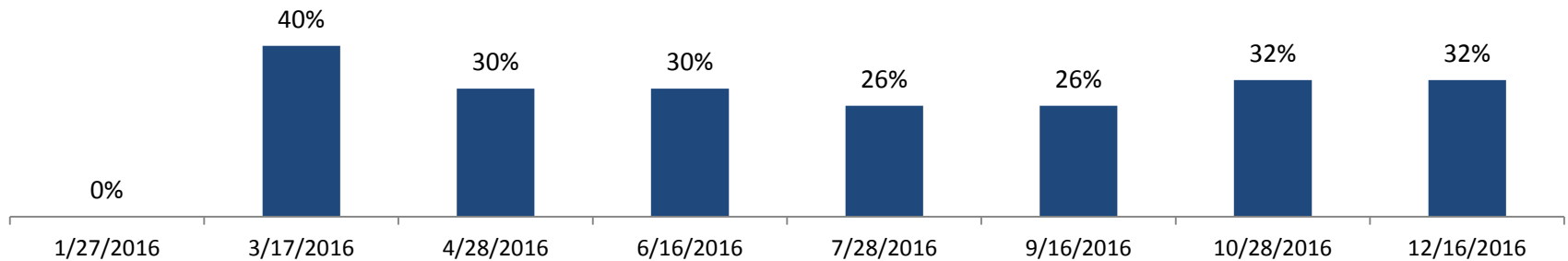
Our FOMC Model

When you are certain of something, you cannot imagine the possibility of any other scenario happening.

Implied Probability of Hike BY Meeting



Implied Probability of Hike AT Meeting



A Rainbow – Eurodollar Futures

Due to the wide variety of instruments available in front-end interest rate futures you can “digitally” re-create the probabilities your scenario analysis generated and then structure your trades with a defined risk profile.

The Eurodollar strip or the “Rainbow”

Ticker		Last	Chg	Settle	Time	Bid	Ask	Open Int	Volume
EDU6	Sep16	99.040	-.025		15:42	99.035	99.040	1027183	187403
EDZ6	Dec16	98.875	-.035		15:46	98.870	98.875	1348946	295240
EDH7	Mar17	98.735	-.045		15:46	98.735	98.740	787083	224714
EDM7	Jun17	98.600	-.050		15:46	98.600	98.605	651225	215125
EDU7	Sep17	98.480	-.050		15:38	98.480	98.485		
EDZ7	Dec17	98.365	-.050		15:46	98.360	98.365		
EDH8	Mar18	98.275	-.055		15:45	98.270	98.280		
EDM8	Jun18	98.190	-.055		15:45	98.185	98.190		
EDU8	Sep18	98.110	-.055		15:47	98.110	98.115		
EDZ8	Dec18	98.030	-.055		15:42	98.030	98.035		
EDH9	Mar19	97.970	-.055		15:44	97.965	97.975		
EDM9	Jun19	97.905	-.055		15:43	97.900	97.910		
EDU9	Sep19	97.845	-.050		15:44	97.840	97.850		
EDZ9	Dec19	97.780	-.045		15:46	97.775	97.780		



Color Code	Year	Color Code	Year
White	1	Purple	6
Red	2	Orange	7
Green	3	Pink	8
Blue	4	Silver	9
Gold	5	Copper	10

Packs of Eurodollar futures are designated by a color code that corresponds to their position on the yield curve. There are generally 10 different packs trading at any given time, White, Red, Green, Blue, Gold, Purple, Orange, Pink, Silver, and Copper, corresponding to Eurodollar futures years 1-10, respectively.

- Packs of Eurodollar futures are designated by a color code that corresponds to their position on the yield curve.
- There are generally 10 different packs trading at any given time: white, red, green, blue, gold, purple, orange, pink, silver, and copper, corresponding to the Eurodollar futures years 1-10 respectively.

A Probability Framework

Question: Now that we have liftoff in December, what would you expect the probability of March to move to? And if the Fed does or does not move in March, what then does the probability of June become?

Probable for a March 2016 hike means March Euro's = 99.25

Probably NOT for a March 2016 means March Euro's = 99.36

	CERTAINTY	THE GENERAL AREA OF POSSIBILITY	
	Certain	100%	
	Almost certain	93% (give or take about 6%)	
	Probable	75% (give or take about 12%)	
0%	Chances about even	50% (give or take about 10%)	100%
	Probably not	30% (give or take about 10%)	
	Almost certainly not	7% (give or take about 5%)	
	Impossible	0%	

A Decision Tree

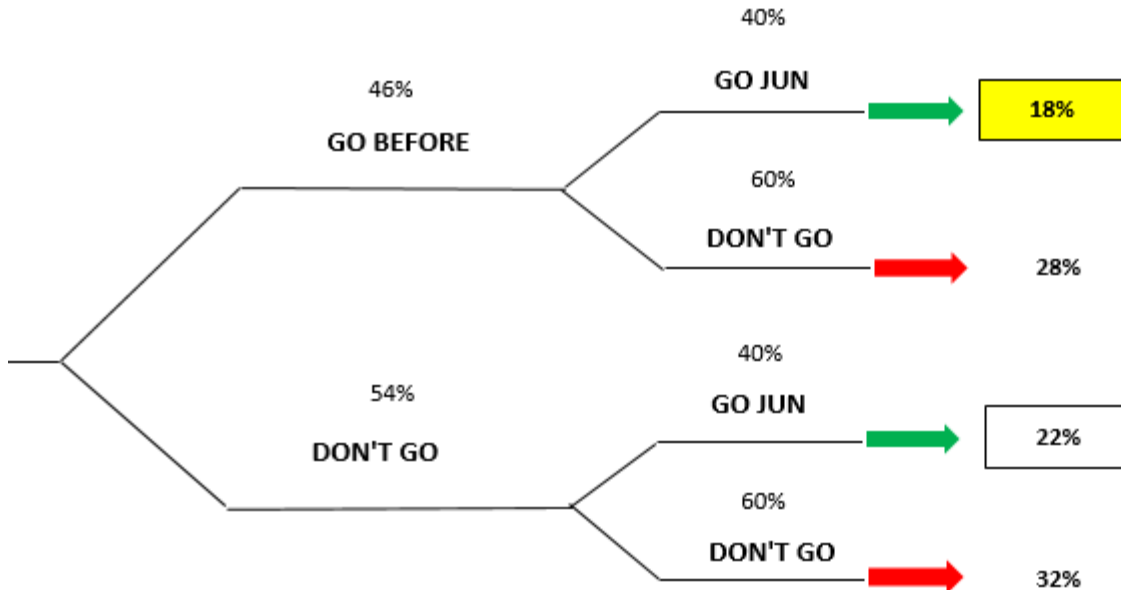
Go At Least Once = the probability of hiking at least once by the June FOMC meeting.

Go Twice = the probability of Jun16 (EDM6) pricing in the certainty of 2 rate hikes by June 2016

No Go At All = the probability that the Fed does not hike at all by June 2016

Go Mar = the unconditional probability that the Fed hikes AT the March meeting

Go Jun = the unconditional probability that the Fed hikes AT the June meeting



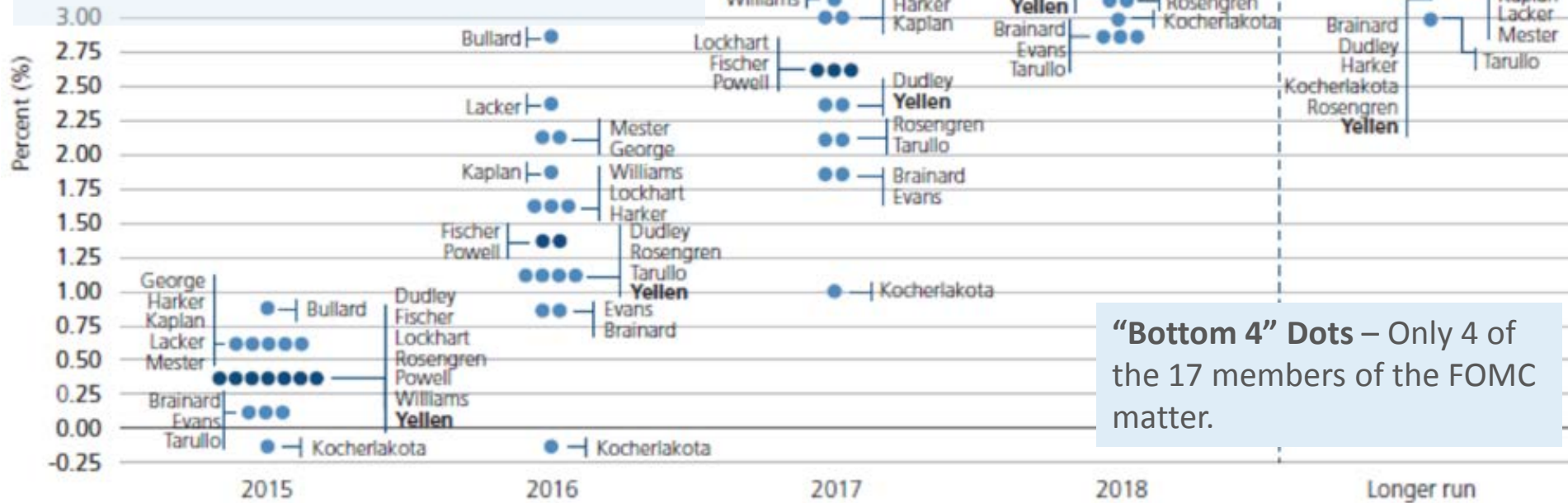
NO GO AT ALL:	48%
GO AT LEAST ONCE:	92%
GO TWICE:	30%
GO JUN:	40%
GO MAR:	46%
EDM6 TODAY:	99.2
GO MAR & JUN:	98.92
NO MAR + GO JUN:	99.185
GO MAR + MAYBE JUN:	99.045
NO MAR + MAYBE JUN:	99.31
NO MAR + MAYBE JUN:	99.31

The Dot Plot

Expected Location of FOMC Member "Bottom 4" Dots

Member	2016 (Dec)	2016 (Mar)	2017 (Dec)	2017 (Mar)
Charles Evans	0.875%	0.875%	1.375%	1.875%
Lael Brainard	0.875%	0.875%	1.625%	1.875%
Janet Yellen	0.875%	0.875%	1.625%	2.125%
Bill Dudley	0.875%	0.875%	2.125%	2.125%
Average	0.875%	0.875%	1.688%	2.000%
Market-Implied	0.916%		1.460%	

Source: Federal Reserve Board, Rareview Macro



“Bottom 4” Dots – Only 4 of the 17 members of the FOMC matter.

Source: Federal Reserve, MPI/Macroeconomic Advisers, PIMCO analysis as of 17 September 2015
 Note: Dark dots indicate median values

The 2 Scenarios

Strategy #1: If you believe that the Fed will not hike interest rates in March,

Potential Trade: Buy the April 15, 2016 expiry 99.25-99.375 (EDJ6) call option ratio spread on the June 2016 Eurodollar future (EDM6). The payout is at least 4:1 if the Fed does not raise interest rates in March.

Rationale: It is currently being priced at “**about even odds**” of the Fed hiking at the March meeting. If the Fed does not raise interest rates at the March meeting it will have a hard time convincing the market, at first, that it will not skip raising rates at the April and June meetings as well. As a result this call ratio spread should be worth more as EDM6 could overshoot to the upside.

Strategy #2: If you believe that the Fed will raise rates at the March meeting, which leaves the door open for more rate increases at the June meeting.

Potential Trade: Buy the June 13, 2016 expiry 99.00-98.875 put options ratio spread on the June 2016 Eurodollar future (EDM6). The payout ratio is at least 12:1 if the Fed hikes in June and the market prices the high likelihood of another move in June.

Rationale: The market is currently pricing the outcome of the Fed hiking rates twice by the June FOMC meeting as “**almost certainly not.**” In probability terms, the odds of the Fed not hiking by June is actually higher. The payout would be asymmetric if the Fed hiked in March as they may not be able to prevent the market from not pricing in a subsequent hike in June.

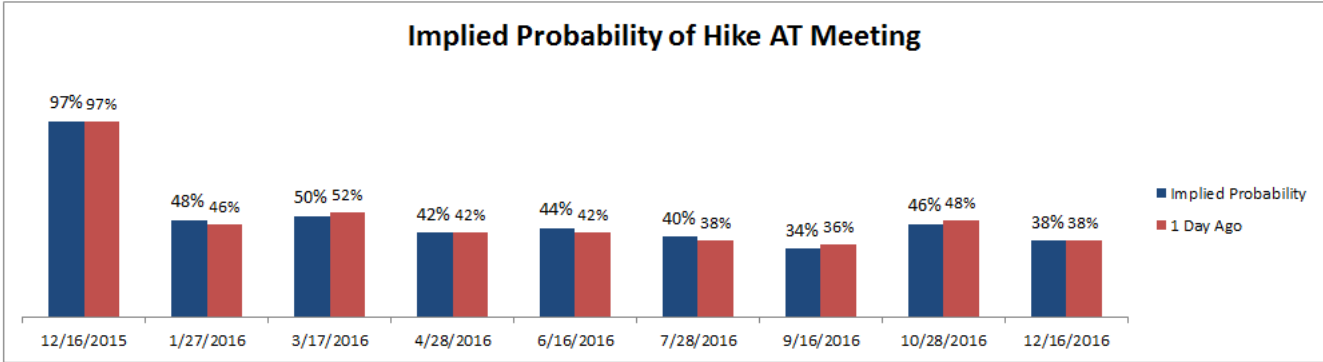
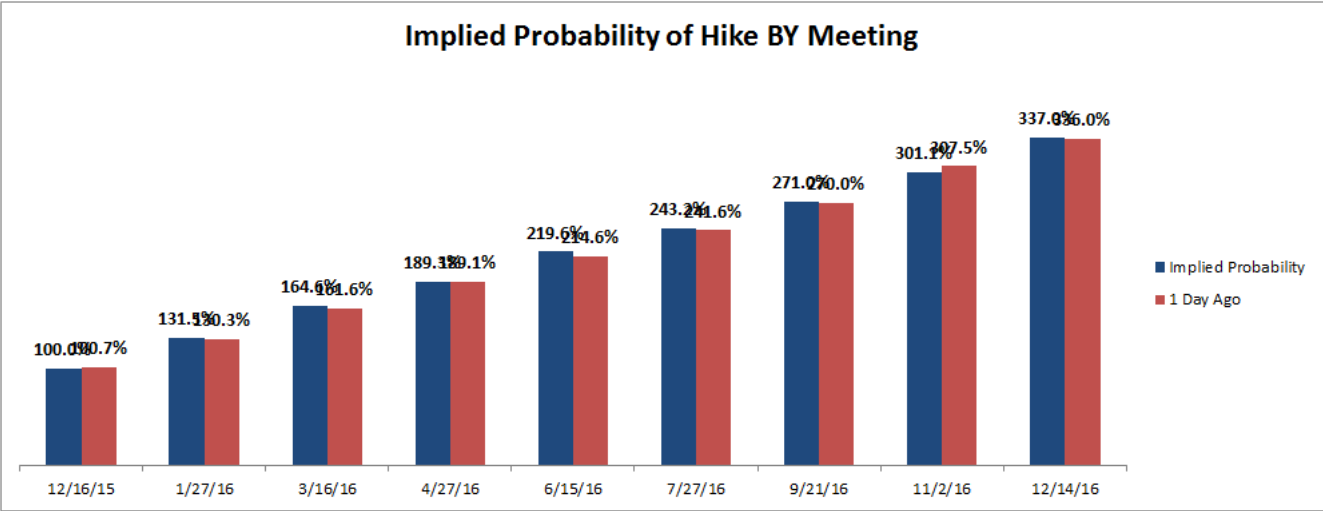
A Pre-Defined Game Plan

Macro Model Portfolio - New Position - Eurodollar Book Overlay/ Recession Hedge

Position Details		Thesis
Date Added	30-Jul-2015	Portfolio overlay on potential recession in next 9 months or Fed chooses to not hike in 2015
Tactical/Strategic	Strategic	Cheap leverage, risking 10 bps of the NAV to make 160 if the Fed doesn't hike for any reason
Return Stream	Portfolio Overlay	Position profits if the Fed hikes once in 2015 and is on hold thereafter, or does not hike
Asset Class	Fixed Income	
Cash/Derivative	Derivative	
Option 1: Long	EDH6 3/14/16 C99.50	Plan for Gains
Option 2: Short	EDH6 3/14/16 C99.625	If Fed hikes at Sep meeting and shifts to neutral bias or on hold for 6 months = hold until maturity
Contracts	16,000	If Fed does not hike in 2015 and 50/50 implied probability for March 2016 FOMC mtg then max profit will be achieved
Entry Price	2.5	
Option 3: Short	EDH6 3/14/16 P98.75	If EDH6 ever trades to top strike of call spread (99.625) = take profits
Contracts	16,000	
Entry Price	1.75	Plan for Losses
Premium (USD)	300,000	If Fed hikes in Sep and Oct, or Sep and Dec = cut position; expected MTM loss if Oct is \$750k if Dec is zero to \$525k
Risk to Hard Stop (NAV)	Qualitative	
Unit Size	0.5	
Risk-Reward	16:1	Notes
Twitter Real-Time Stamp	3:02 p.m. EST	Option expires on 3/14/16, two days before the March FOMC meeting
Twitter Real-Time Stamp	TBD (balance)	6k of 16k added on 7/30, balance of addition TBD

Source: Rareview Macro

Before & After



Source: Rareview Macro

FOMC Regime Matrix

	Rareview Macro Event Regime Matrix						
Scenario							Notes
Above Consensus	JPY/ALL	UST 5yrs	UST 5/10 Curve	XLY/XLP	TIPS	Gold	Tighter Credit
Near Consensus	GBP/USD	USD/CNY	UST 5yrs	US Equities	XLF/SPY	VIX	Short Vol
Below Consensus	USD/Asia FX	JPY/ALL	UST Bull Steeper	TIPS	XLY/XLP	Gold	Uncertainty

Legend:

Green = Up Red = Down Black = Neutral Blue = Relative Value

All One Trade - High Yield Credit Spread Correlations

	Dependent Variable	Independent Variable	120-day Rolling Correlation			5-Year Daily Correlation
			As of 8-Dec	52-Wk Extreme Level	Date	
2s/10s Yield Curve Slope	BUHY Index	USYC2Y10 Index	-0.87	-0.92	1/28/15	-0.49
10-yr UST yield	BUHY Index	USGG10YR Index	-0.74	-0.87	1/28/15	-0.47
Oil	BUHY Index	CL1 Comdty	-0.72	-0.94	2/5/15	-0.39
US Dollar	BUHY Index	BBDXY Index	0.47	0.91	2/5/15	0.17

Source: Bloomberg, Richard Salditt, Rareview Macro

Contact

Please do not forward this presentation. Rareview Macro LLC has a limited customer base, and forwarding compromises the exclusivity of this product and the service we provide to our clients.

If you would like a colleague to receive this presentation or to inquire about a trial subscription, please email us at info@rvmacro.com.

info@rvmacro.com

1 203-539-6067

www.rareviewmacro.com

[@rareviewmacro](#)

Disclaimer

Trading and investment carry a high level of risk, and Rareview Macro LLC does not make any recommendations for buying or selling any financial instruments. We offer educational information on ways to use our sophisticated models, but it is up to our customers and other readers to make their own trading and investment decisions or to consult with a registered investment advisor.

© 2016 Rareview Macro LLC. All rights reserved worldwide.