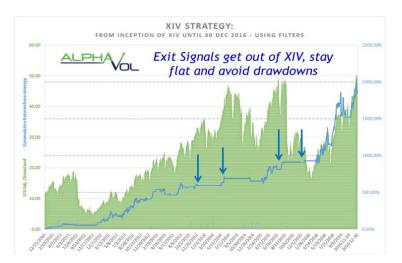


#### System Approach:

Buy XIV when signal determines that VIX futures structure & volatility is optimal

Sell XIV when Exit trigger is detected, go to cash

Automated signal generated 30 minutes before market close: "Long" or "Out"



# Trade Results in live trading accounts (after commissions)

In 2014 using buy & hold : 11.6 % realized return

In 2015 using buy & hold: 5.3% realized (-1% mark to market)

# In 2016 using signals: 39% return realized on trades closed including some trades opened in 2015 (45% mark to market)

## 2017 YTD using signals: 40% return realized on trades thru April 20th

Discretion was used in 2016 to close out positions before Brexit event and re-enter afterwards. Discretion used to close positions before the 2016 Presidential Election as well. In the end, final live returns would have been higher without discretion.

# Independent Back Testing Results from Two Separate Testers:

Trading Strategy Performance

First independent testing showed 50% annual return, 31% max drawdown, and advantageous SPY Capture Ratio:

+1.81 long -1.47 short

nmäry Statistics Trades Details Analysis D.W.M.Y Symbols Formula Pro	ft distribution Rank Graphs MAE/M	PE S.1.M.I Regimes Exit rules Monte Carlo Report	ettings Reference symbol No errors						
Annual Return	48.42%	Sharpe Ratio	1.49		o o c T				
<b>Risk Adjusted Return</b>	109.71%	Sortino Ratio	2.08		- 1500000				
Standard Deviation	29.18%	Beta	0.25						
Downside Std Deviation	20.91%	Alpha	11719%		61				
Max System Drawdown	-30.73%	R Squared	0.25		1000000				
Net Profit In Percentage	15710.7%	Correlation	0.5		MALL .				
1 1 1 1 1 1 1 1 1 1 1 1 1 1									
we :12120011 Dawdows-0.251 ↓₩[**₩~~*	Li-q_	Man Manan	-MMMANN	~M/-	₩U -10 -20 -30				
Jan 12/15/2011 - Percentage Instantial 55:999					80 60 40 20				
a de la constante de la consta		3228 bars							

Dave Walton, former NAAIM Wagner Award winner, also independently tested the system and verified that the signal definitely added Alpha, even with slight variations in the filter levels, which shows robustness. His expertise is testing systems to avoid curve fitting and associated problems.

Contact Brad Hartman today for more information or to subscribe to our signal: info@alphavol.com www.alphavol.com 888-3-OPTION (367-8466) brad@hartmanfinancialplanning.com 661-505-8437



#### Adds alpha to portfolios while risking less capital

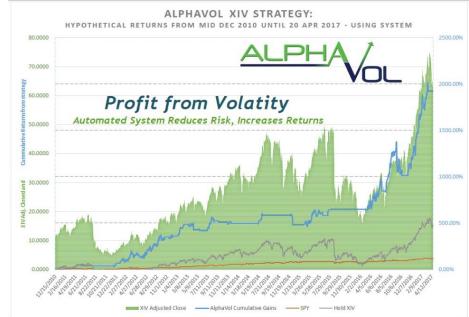
Increase returns of existing portfolios Additional / alternative asset class Not directly correlated to equities Market Volatility is more mean reverting than indices Can make money even if the equity market doesn't rise

## Can be used in IRAs and other limited accounts:

No options or shorts are used; Uses XIV an Exchange Traded Note (ETN) Great to add to fixed income portfolios to enhance yield We allocate 10 to 25% of a client's portfolio to this system

#### Reduced drawdowns are key to protect capital

#### Uses mechanical indicators and filters to get out quickly



	AlphaVol	SPY	Hold XIV		
Year	Hypothetical	Annual	Annual		
	Return	Return	Return		
2010 Partial	3.34%	1.86%	4.72%		
2011	60.18%	1.93%	<b>-94.19%</b>		
2012	176.97%	13.86%	53.73%		
2013	30.52%	25.46%	56.95%		
2014	-2.22%	12.29%	-10.50%		
2015	28.32%	1.22%	-20.88%		
2016	77.09%	9.87%	44.28%		
AVG	52.70%	10.77%	4.90%		
CAGR	<b>67</b> %	15.00%	31.36%		
2017 YTD	39.49%	5.47%	42.59%		

#### Hypothetical XIV strategy returns before fees & trade costs, which should have minimal effect:

AlphaVol	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	ANNUAL
2011	15.1%	-1.8%	4.5%	25.1%	0.8%	-7.6%	-3.5%	0.0%	0.0%	0.0%	0.0%	20.5%	60.2%
2012	17.2%	5.0%	37.1%	-2.8%	-16.8%	29.6%	6.4%	16.0%	15.8%	8.0%	2.6%	-1.2%	177.0%
2013	19.5%	7.1%	-1.1%	-8.8%	-1.7%	0.0%	19.6%	0.0%	-1.7%	0.0%	-1.5%	-0.8%	30.5%
2014	0.0%	0.0%	0.0%	0.0%	6.0%	8.1%	0.0%	0.0%	0.0%	0.0%	-1.1%	-13.7%	-2.2%
2015	0.0%	2.2%	2.4%	15.2%	0.4%	-4.2%	9.4%	1.0%	0.0%	0.0%	0.0%	0.0%	28.3%
2016	0.0%	0.0%	10.2%	1.2%	21.3%	-6.8%	29.9%	11.1%	-16.9%	-2.0%	11.3%	7.4%	77.1%
2017	29.9%	5.5%	11.0%										