

Asset Management

# **Boston Patriot Salem St LLC**

October 2015

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# **August Commentary**

Diversifying Alternative Risk Premia (DARP) Portfolio



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Global financial markets experienced heightened volatility in August amid weakening economic data out of China, a broad equity market sell-off across geographies and sectors, and continued speculation about a Fed rate hike.

The Diversifying Alternative Risk Premia Portfolio returned -0.66% (gross) in August, while the S&P 500 declined -5.25% over the month. Intra-month performance highlights the differentiated performance of the Portfolio versus equities, as the DARP Portfolio posted positive performance through August 24th of +4.60% (gross) while the S&P was down -9.84% over the same period. Since its inception on July 24th, 2015, the DARP Portfolio has gained +0.78% (gross), while the S&P 500 has declined -4.13% (as of August 28th, 2015).

The underlying strategies with the strongest performance within the DARP Portfolio in August were Trend Commodities, Trend Rates and Equity Low Beta. The Trend Commodities strategy benefited from short exposure to energy and softs given the sell-off on the back of fears of slowing growth in China and developed markets, although the strategy gave up some gains in the last few days of the month given commodity price reversals. The Trend Rates strategy benefited from net long exposure to short-term interest rates over the month (particularly US). Equity Low Beta benefited from the short side, specifically in technology names.

The FX Carry strategy detracted most from the DARP Portfolio's performance in August, specifically long positions in the Turkish lira and Russian ruble against USD. The Commodities Cross Market Momentum strategy detracted given long positions in feeder cattle and cocoa, and the Bond Calendar strategy posted negative performance driven by positions in German Bunds and US Treasuries.

# Attribution by Asset Class (as of 8/28/2015)

Commodity	Attribution (Aug-15) -0.49%
Credit	0.26%
Currency	-1.03%
Fixed Income	0.32%
Equity	0.28%
Cash	-0.01%
Total	-0.66%

Past performance does not guarantee future results, which may vary. There is no guarantee that these objectives will be met. The returns presented herein are gross and do not reflect the deduction of investment advisory fees, which will reduce returns. Portfolio holdings and/or allocations shown above are as of the date indicated and may not be representative of future investments. Future investments may or may not be profitable.

# September Commentary

Diversifying Alternative Risk Premia (DARP) Portfolio



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Volatility across global financial markets continued into September, with further declines in global equities and commodities, and the announcement of the Federal Reserve's decision to postpone a rate hike.

The Diversifying Alternative Risk Premia Portfolio returned +1.91% (gross) in September, while the S&P 500 declined 3.28% over the month. Since its inception on July 24th, 2015, the DARP Portfolio has gained +2.71% (gross), while the S&P 500 has declined -7.27% (as of September 30, 2015).

The underlying strategies with the strongest performance within the DARP Portfolio in September were Trend Rates, Bond Calendar and Equity Low Beta. The Trend Rates strategy benefited from net long positions in short term interest rates (particularly US), while the Bond Calendar strategy benefited from positions in German Bunds and UK Gilts. Equity Low Beta benefited from net long exposure to utilities and financials names, as well as net short exposure to energy stocks.

The Commodity Cross Market Momentum strategy detracted most from the DARP Portfolio's performance in September, specifically long positions in feeder and live cattle given fears of weakening demand for beef in US markets. The EX Value strategy detracted given long positions in Norwegian krone and South African rand vs. USD, while the Commodities Cross Market Carry strategy posted negative performance driven by long exposure to metals, particularly aluminum and gold.

## Attribution by Asset Class (as of 9/30/2015)

	Attribution (Sep-15)
Commodity	-0.74%
Credit	0.06%
Currency	-0.70%
Fixed Income	2.62%
Equity	0.67%
Cash	0.00%
Total	1.91%

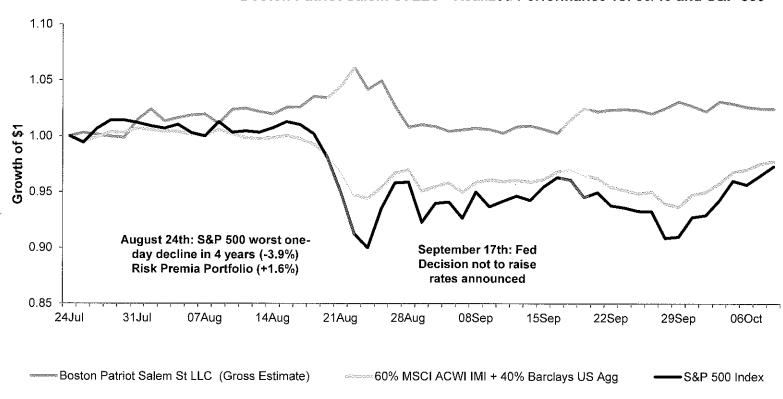
Past performance does not guarantee future results, which may vary. There is no guarantee that these objectives will be met. The returns presented herein are gross and do not reflect the deduction of investment advisory fees, which will reduce returns. Portfolio holdings and/or allocations shown above are as of the date indicated and may not be representative of future investments. The holdings and/or allocations shown may not represent all of the portfolio's investments. Future investments may or may not be profitable.

# Daily Performance

Inception to date



### Boston Patriot Salem St LLC - Realized Performance vs. 60/40 and S&P 500



Past performance does not guarantee future results, which may vary. There is no guarantee that these objectives will be met. The returns presented herein are gross and do not reflect the deduction of investment advisory fees, which will reduce returns. GROWTH OF \$1: A graphical measurement of a portfolio's gross return that simulates the performance of an initial investment of \$1 over the given time period. The example provided does not reflect the deduction of investment advisory fees and expenses which would reduce an investor's return. Please be advised that since this example is calculated gross of fees and expenses the compounding effect of an investment manager's fees are not taken into consideration and the deduction of such fees would have a significant impact on the returns the greater the time period and as such the value of the \$1 if calculated on a net basis, would be significantly lower than shown in this example.



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Volatility Risk Premium: Research

# Volatility Risk Premium

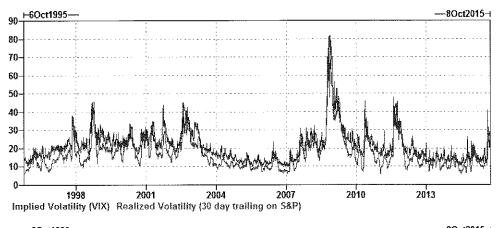


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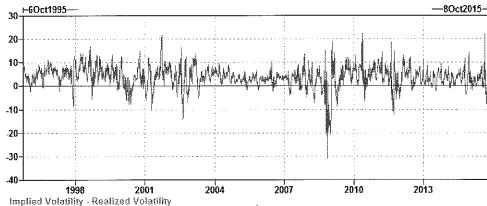
Seeks to capture the difference between the realized volatility of the underlying asset and the volatility implied by options prices

Historically, implied is priced higher than realized, demonstrating the existence and persistence of the volatility

risk premium



at the money aptions



For illustrative purposes only. Past performance does not guarantee future results, which may vary.

# Capturing Volatility Risk Premia

Iron Condor Approach

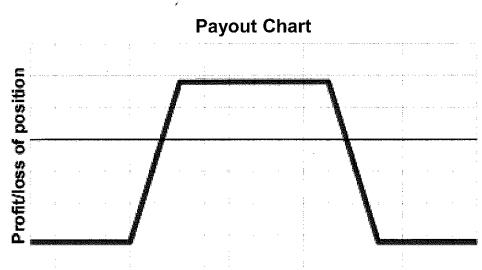
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Cross market opportunity.

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# Implementation:

- Collect premium from selling near out of the money options
- Pay smaller premium for buying far out of the money options
  - Buying back the wings limits maximum loss and reduces margin consumption
- We seek to size the positions such that the shock risk is no greater than holding the underlying contract outright



Price of the underlying instrument

For illustrative purposes only. The Volatility Risk Premia return on subsequent pages assumes constant trading costs, constant roll costs, and a cash rate of return equal to a benchmark (fed funds). The simulation assumes trades are conducted at the closing level of each instrument. These examples are for illustrative purposes only and are not actual results. If any assumptions used do not prove to be true, results may vary substantially.



Research: Fixed Income Value

# Fixed Income Value

Research Update & Backtested Performance



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## Common approaches to measure Fixed Income Value

 Look at financial variables (concavity and slope of yield curve): convexity and carry are measures of bond risk premium. Conditioning on these variables has predictive ability for bond returns

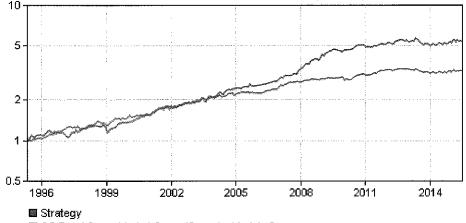
- Cochrane J., Piazzesi M., "Bond Risk Premia", http://web.stanford.edu/~piazzesi/cp.pdf, 2002
- Hellerstein R., "Global Bond Risk Premiums", <a href="http://www.nyfedeconomists.org/research/staff">http://www.nyfedeconomists.org/research/staff</a> reports/sr499.pdf, <a href="mailto:2011">2011</a>
- Looking at economic fundamentals (SUDOKU model by Global Investment Research): deviation from macroeconomic fundamentals mean-revert based on:
  - GIR, September 2006: 10Y yield is linked to expected GDP growth, CPI, expected 3m rate in 1Y time, average of global 10Y rates

## AIS approach and research items

- Ranking based on:
  - Regression residual of 10Y rates on expected inflation + GDP
  - Convexity (5y-0.5\*(2y+10y)) ?
- Determine best way to combine signals (presently 50:50)
- Better understand period from 2011
- Present to GSAM FI PMs and get feedback before finalization

Statistics	Bond Value (Gross)	GS Bond Cross Market Carry (Gross) - Model v2
Start Date	30/04/1995	30/04/1995
End Date	30/06/2015	30/06/2015
Total Return	428.82%	225.00%
Annualized Return	8.61%	6.02%
Annualized ER	5. <b>7</b> 9%	3.20%
Total Return YTD	1.83%	1.56%
Return 12m	2.71%	2.51%
Max Drawdown	-12.44%	-7.83%
Annualized Vol	7.73%	5.50%
Sharpe	0.75	0.58
Correlation	100.00%	39.62%





■ GS Bond Cross Market Carry (Gross) - Model v2

Strategy above denotes the Bond Value strategy. These performance results are backtested based on an analysis of past market data with the benefit of hindsight, do not reflect the performance of any GSAM product and are being shown for informational purposes only. Please see additional disclosures. **Past performance does not guarantee future results, which may vary.** The returns are gross and do not reflect the deduction of investment advisory fees, which will reduce returns. Our investment advisory fees are described in Part 2 of our Form ADV. See additional disclosures. Past correlations are not indicative of future correlations, which may vary.

Research: Fixed Income Value



# Asset Management

# Diversifying Alternative Risk Premia Portfolio Boston Patriot Salem St LLC Monthly Update

August 2015

# Portfolio Overview

The Diversifying Alternative Risk Premia (DARP) Portfolio combines several risk premia strategies in an effort to deliver performance with low correlation to equities, along with the potential additional benefits of liquidity, transparency, and cost-effectiveness. Strategies are employed that span Value, Carry and Momentum styles, and the Portfolio holds over 100 positions across fixed income, credit, currencies, commodities, and equities.

# Performance Commentary

Global financial markets experienced heightened volatility in August amid weakening economic data out of China, a broad equity market sell-off across geographies and sectors, and continued speculation about a Fed rate hike.

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# Key Statistics (as of 8/28/2015)

Assets (\$M)	\$ 202
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Performance Inception Date	7/24/2015
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# Risk and Return Characteristics (as of 8/28/2015)

	DARP	S&P 500	Barclays US Agg
1 Month (8/28/2015)	-0.66%	-5.25%	-0.08%
YTD (%)		00000000000000000000000000000000000000	*
Inception to Date (%)	0.78%	4.13%	0.24%
Since Inception			THE REPORT OF THE PARTY OF THE
Ann. Return (%)	The result of the second secon	3	The second secon
Ann. Volatility (%)	-	•	A second of the
Sharpe Ratio	•	•	And the second s
Max Drawdown (%)	American by an one on the state of the state		## \$4.64###### \$4.64###\$4.54###############################
Correlation			enter in coloniari in formation de coloniari de coloniari de coloniari de coloniari de coloniari de coloniari d

# Attribution by Asset Class (as of 8/28/2015)

-0.66%	Total
-0.101% годинательного поставления постав	Cash
Equity 0.28%	
Fixed Income  0.32%  6.32%	Fixed Income
Currency -1.03%	Currency
Credit 0.26%	Credit
-0,49%  -0.00 до при на при н	Commodity
Attribution (Aug-15)	

# Historical Monthly Performance

0.78%	45%* -0.66% 0.78%	-0.66%		·		2015	•			2015
YTD**	Sep Oct Nov Dec YTO**	Aug	Ju	Jun	May	Apr	War	Feb	Jan	
The second second second second		A TOWN TOWN TOWN THE PARTY OF T	or dissertation of the second contraction of	Seminary of the second second second	STATE OF THE PARTY	of ordering to the second second	the state of the state of the state of	Continued to the first the continued of	the first of the second second second second	Andrew Commence of the Commenc

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The currency market affords investors a substantial degree of leverage. This leverage presents the potential for substantial profits but also entails a high degree of risk including the risk that losses may be similarly substantial. Such transactions are considered suitable only for investors who are experienced in transactions of that kind. Currency fluctuations will also affect the value of an investment

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investments will fluctuate and can go down as well as up. A loss of principal may occur. Past performance does not guarantee future results, which may vary. The value of investments and the income derived from

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<sup>\*</sup>July performance above is partial for the month (beginning on inception: July 24th, 2015).

\*\*YTD above signifies Inception to Date Performance for 2015. Past performance does not guarantee future results, which may vary.