

# S&P 500 Option Premium Matrix



## Definitions

- Floor:** Long Put Position
- Re-Entry:** Short Put Position
- Cap:** Short Call Position
- Option Premium:** Expressed as a percentage of portfolio value
- Option Strike:** Expressed relative to current index level

Published: 1/27/2012  
S&P 500: 1316.33

Option Term	Strike	Put Option Premium							Call Option Premium						
		-35%	-30%	-25%	-20%	-15%	-10%	-5%	0%	0%	+5%	+10%	+15%	+20%	+25%
3-Month		0.09%	0.16%	0.26%	0.41%	0.69%	1.20%	2.11%	3.71%	3.30%	1.11%	0.22%	0.04%	0.01%	0.00%
6-Month		0.51%	0.71%	0.99%	1.39%	1.97%	2.78%	3.98%	5.74%	4.85%	2.40%	0.89%	0.27%	0.09%	0.05%
1-Year		1.43%	1.92%	2.52%	3.33%	4.25%	5.51%	7.08%	9.02%	7.21%	4.72%	2.74%	1.41%	0.64%	0.24%
2-Year		3.58%	4.48%	5.54%	6.76%	8.18%	9.80%	11.70%	13.88%	10.28%	7.85%	5.75%	4.04%	2.69%	1.70%

### Example Hedge Structure: 1 year S&P 500 Put Spread Collar: -10% Floor / -30% Re-entry / +10% Cap

Investor purchases a -10% Floor and sells a -30% Re-Entry and +10% Cap on the S&P 500

Cost of a one-year -10% Floor:	5.51%
Value of a one-year -30% Reentry:	-1.92%
Value of a one-year +10% Cap:	-2.74%
<b>Net cost to investor as a % of portfolio value:</b>	<b>0.85%</b>

**NOTE:** Please see pages 2-3 for sample hedge profile.

For informational purposes only. Costs and protection levels are based on current market characteristics and assumptions which change over time. The protection levels and costs described are estimates which may not be achieved or achievable and The Clifton Group makes no guarantee in this regard. Option premiums are calculated using implied market volatility on index traded options. Option strike levels based on index price, not index total return. Source: Bloomberg

Historical Data available upon request: [Info@TheCliftonGroup.com](mailto:Info@TheCliftonGroup.com)



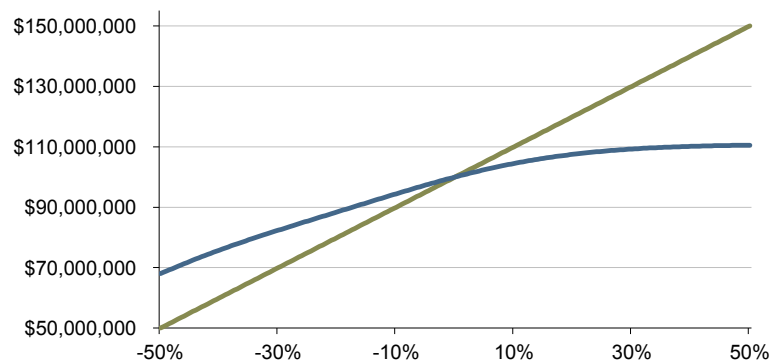
**S&P 500 Put-Spread Collar**  
 1-Year Term  
 Hedge Profile - 01/27/2012

**S&P 500** 1316.33  
**Notional:** \$100,000,000  
**Hedge Term:** 1/26/2013  
**Option Strike:** Expressed relative to current index level

<u>Hedge Structure</u>	<u>Position</u>	<u>Contracts</u>	<u>Option Type</u>	<u>Index</u>	<u>Strike</u>	<u>Term</u>	<u>Premium</u>
<b>Floor:</b> -10.00%	Long	760	Put	S&P 500	1184.70	1/26/13	\$ 5,512,695 5.51%
<b>Reentry:</b> -30.00%	Short	(760)	Put	S&P 500	921.43	1/26/13	\$ (1,924,200) -1.92%
<b>Cap:</b> +10.00%	Short	(760)	Call	S&P 500	1447.96	1/26/13	\$ (2,740,440) -2.74%
<b>Initial Premium:</b>							\$ 848,055 0.85%

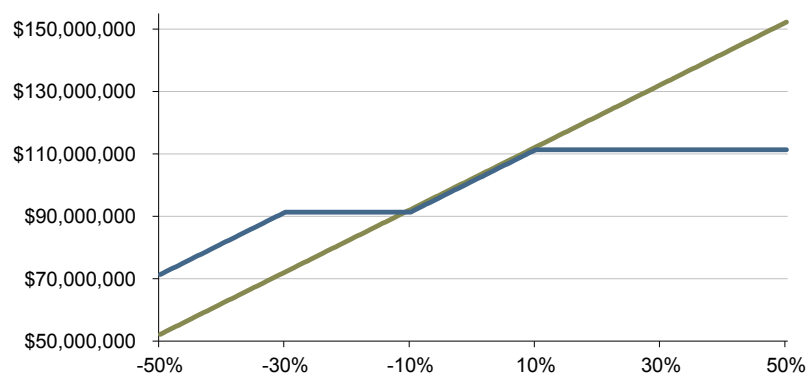
Portfolio Value - Instantaneous

1/27/2012



Portfolio Value - at Maturity

1/26/2013



— Unhedged Portfolio  
 — Hedged Portfolio

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**HYPOTHETICAL PERFORMANCE DISCLOSURES**

Simulated performance results have many inherent limitations, some of which are described below. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between simulated performance results and the actual results subsequently achieved by any particular trading program. One of the limitations of simulated performance results is that they are generally prepared with the benefit of hindsight. In addition, simulated trading does not involve financial risk, and no simulated trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or to adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the preparation of simulated performance results and all of which can adversely affect actual trading results. Because there are no actual trading results to compare to the simulated performance results, customers should be particularly wary of placing undue reliance on these simulated performance results.



Return Estimate Period:

1/27/12 - 1/26/13

Protection Strategy  
Expected Return Profile

Equity Cash Index Return (excludes Dividends)		Total Return Index <sup>1</sup>		Hedge Value at Expiration	Protection Gain/Loss <sup>2</sup>		Protected Equity Total Return <sup>3</sup>	
%	\$	%	\$	\$	%	\$	%	\$
50%	50,000,000	52.20%	52,200,490	(40,000,000)	-40.85%	(40,848,055)	11.35%	11,352,435
45%	45,000,000	47.20%	47,200,490	(35,000,000)	-35.85%	(35,848,055)	11.35%	11,352,435
40%	40,000,000	42.20%	42,200,490	(30,000,000)	-30.85%	(30,848,055)	11.35%	11,352,435
35%	35,000,000	37.20%	37,200,490	(25,000,000)	-25.85%	(25,848,055)	11.35%	11,352,435
30%	30,000,000	32.20%	32,200,490	(20,000,000)	-20.85%	(20,848,055)	11.35%	11,352,435
25%	25,000,000	27.20%	27,200,490	(15,000,000)	-15.85%	(15,848,055)	11.35%	11,352,435
20%	20,000,000	22.20%	22,200,490	(10,000,000)	-10.85%	(10,848,055)	11.35%	11,352,435
15%	15,000,000	17.20%	17,200,490	(5,000,000)	-5.85%	(5,848,055)	11.35%	11,352,435
10%	10,000,000	12.20%	12,200,490	0	-0.85%	(848,055)	11.35%	11,352,435
5%	5,000,000	7.20%	7,200,490	0	-0.85%	(848,055)	6.35%	6,352,435
0%	0	2.20%	2,200,490	0	-0.85%	(848,055)	1.35%	1,352,435
-5%	(5,000,000)	-2.80%	(2,799,510)	0	-0.85%	(848,055)	-3.65%	(3,647,565)
-10%	(10,000,000)	-7.80%	(7,799,510)	0	-0.85%	(848,055)	-8.65%	(8,647,565)
-15%	(15,000,000)	-12.80%	(12,799,510)	5,000,000	4.15%	4,151,945	-8.65%	(8,647,565)
-20%	(20,000,000)	-17.80%	(17,799,510)	10,000,000	9.15%	9,151,945	-8.65%	(8,647,565)
-25%	(25,000,000)	-22.80%	(22,799,510)	15,000,000	14.15%	14,151,945	-8.65%	(8,647,565)
-30%	(30,000,000)	-27.80%	(27,799,510)	20,000,000	19.15%	19,151,945	-8.65%	(8,647,565)
-35%	(35,000,000)	-32.80%	(32,799,510)	20,000,000	19.15%	19,151,945	-13.65%	(13,647,565)
-40%	(40,000,000)	-37.80%	(37,799,510)	20,000,000	19.15%	19,151,945	-18.65%	(18,647,565)
-45%	(45,000,000)	-42.80%	(42,799,510)	20,000,000	19.15%	19,151,945	-23.65%	(23,647,565)
-50%	(50,000,000)	-47.80%	(47,799,510)	20,000,000	19.15%	19,151,945	-28.65%	(28,647,565)

1 Total Return Index assumes a constant dividend yield of 2.20% that is independent of the return on the Cash Index.

2 Protection Gain/Loss is equal to Hedge Value at Expiration less the premium paid at initiation of hedge.

3 Protection Equity Total Return is equal to the sum of the Total Return Index and the Protection Gain/Loss.

**Comment:** The Protected Equity and Equity Total Return calculations above assume S&P 500 Index performance results. Actual performance will be higher or lower depending on actual manager results versus the S&P 500 Index over the protection term.

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