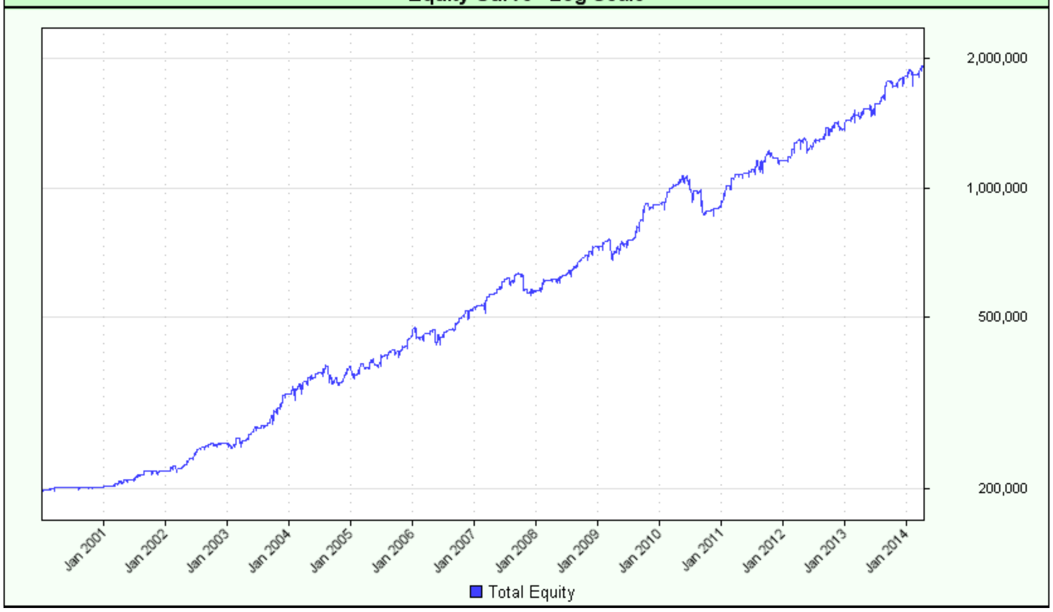
Summary Test Results

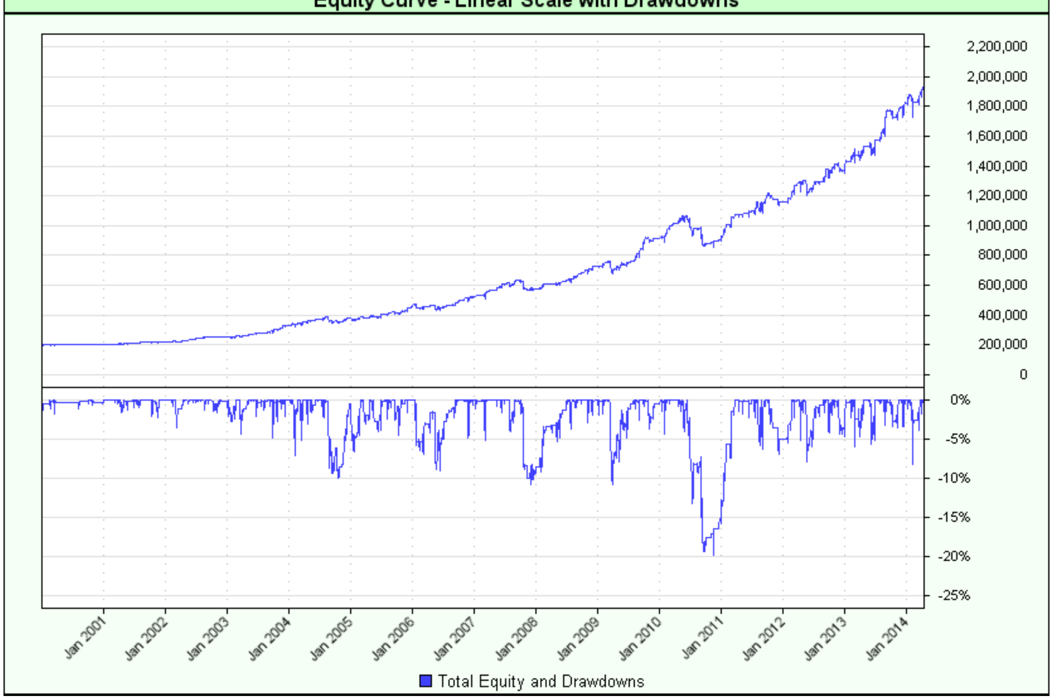
Stepped Parameter Summary Performance

Test	Ending Balance	CAGR%	MAR	Modified Sharpe	Annual Sharpe	Max Total Equity DD	Longest Drawdown	# Trades
1	1,929,666.69	17.22%	0.87	1.54	1.35	19.9%	9.4	1,268

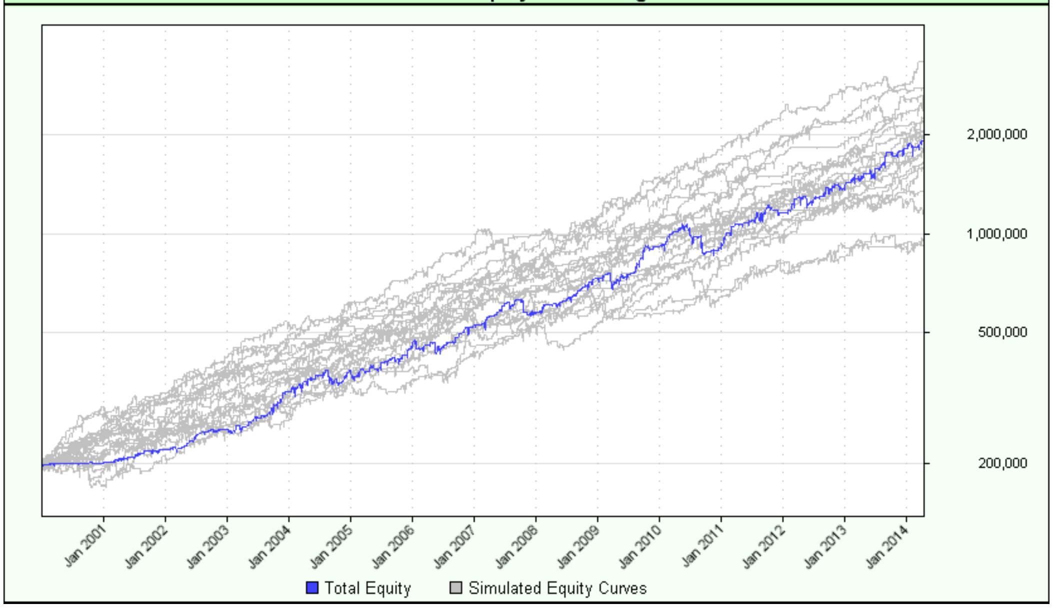
Equity Curve - Log Scale



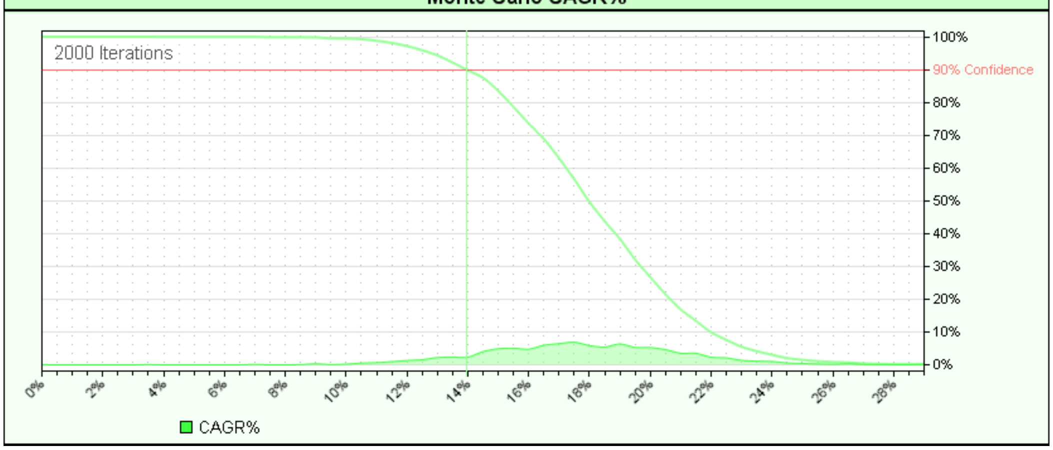
Equity Curve - Linear Scale with Drawdowns



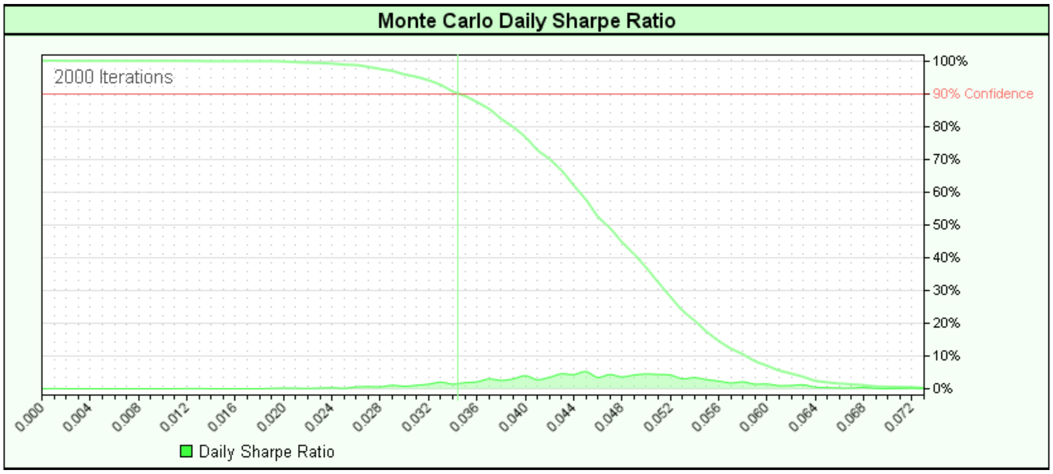
Monte Carlo Equity Curve - Log Scale



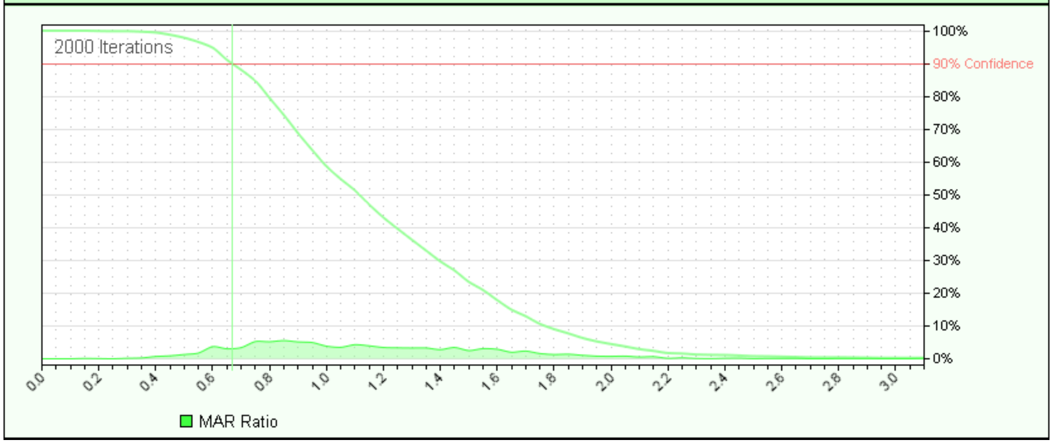
Monte Carlo CAGR%



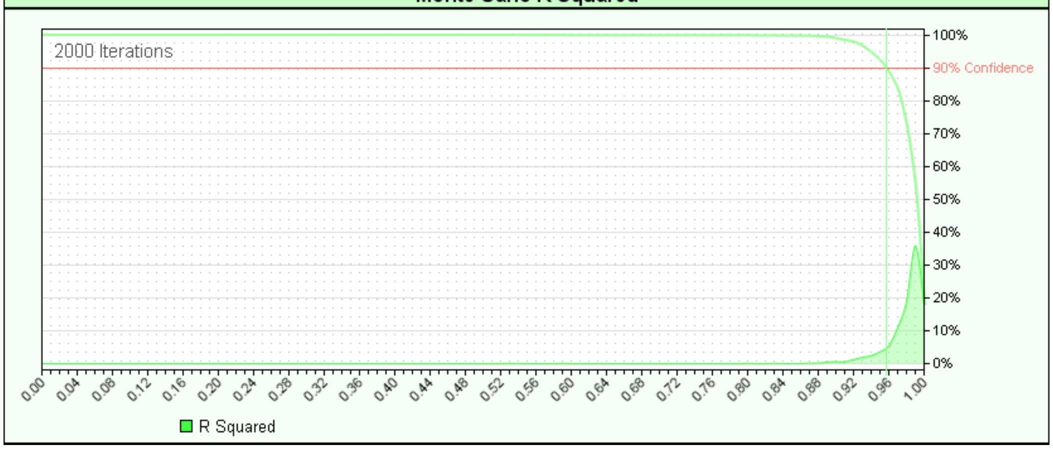
Monte Carlo Daily Sharpe Ratio



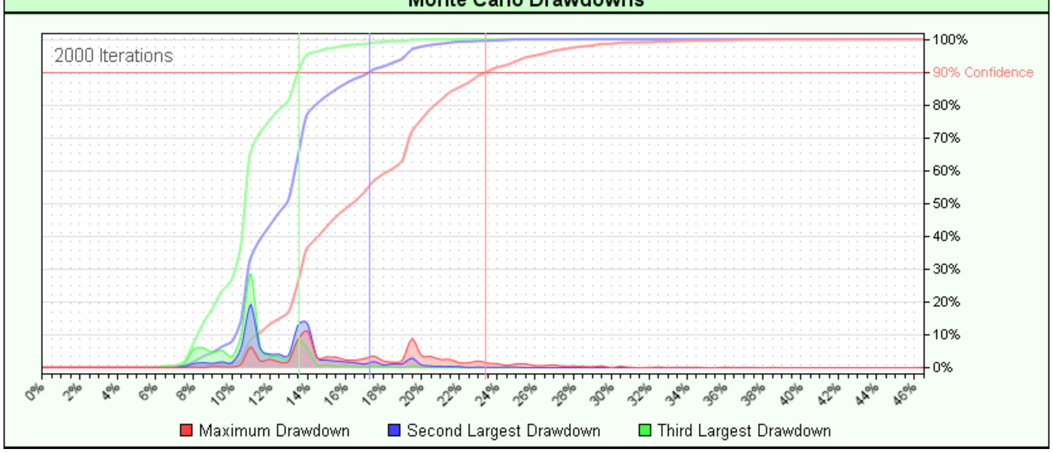
Monte Carlo MAR Ratio



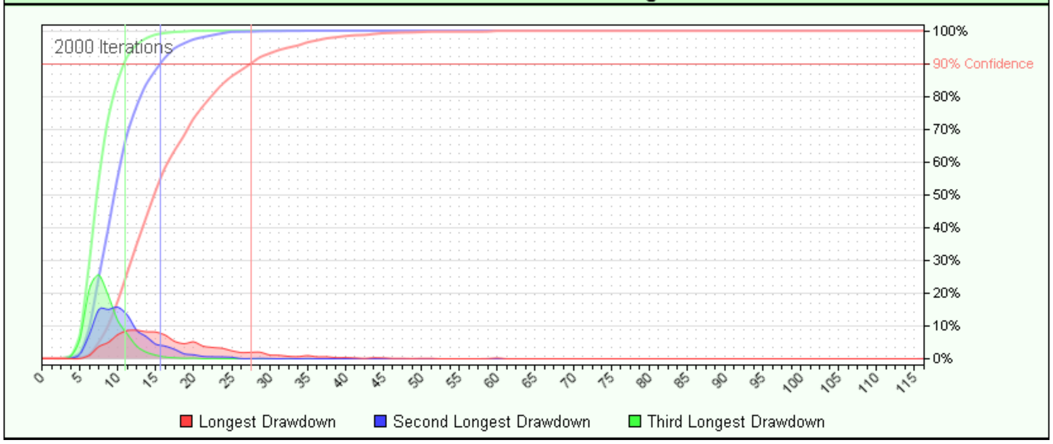
Monte Carlo R Squared



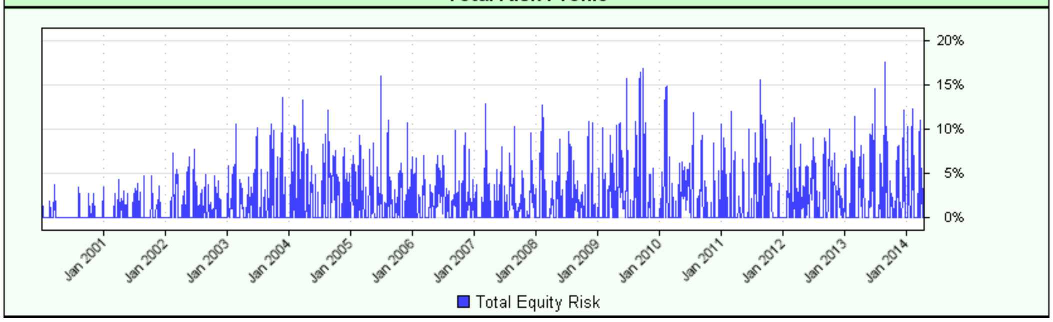
Monte Carlo Drawdowns



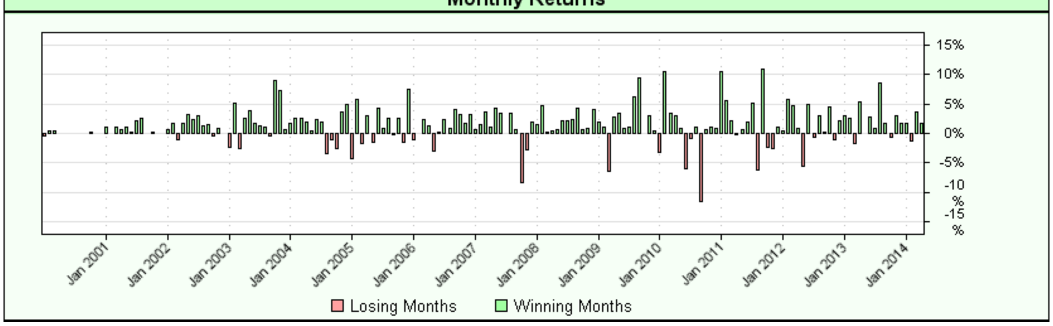
Monte Carlo Drawdown Length



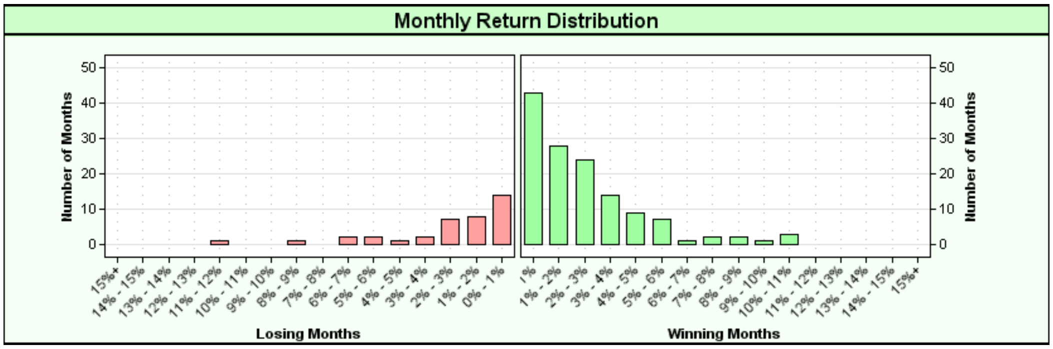
Total Risk Profile

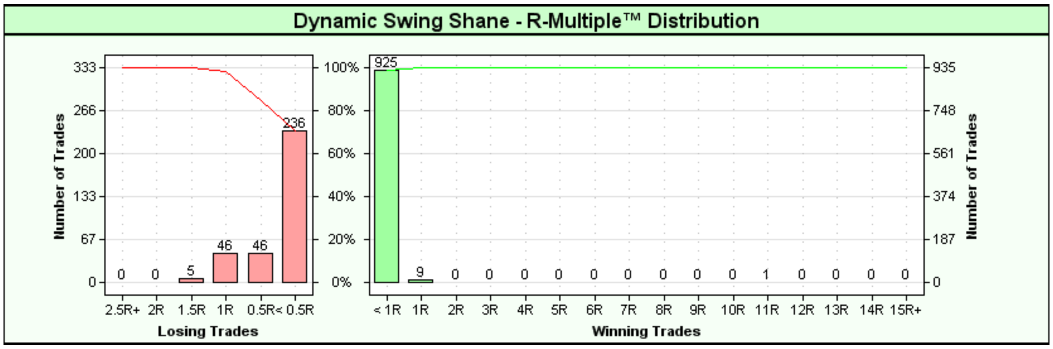


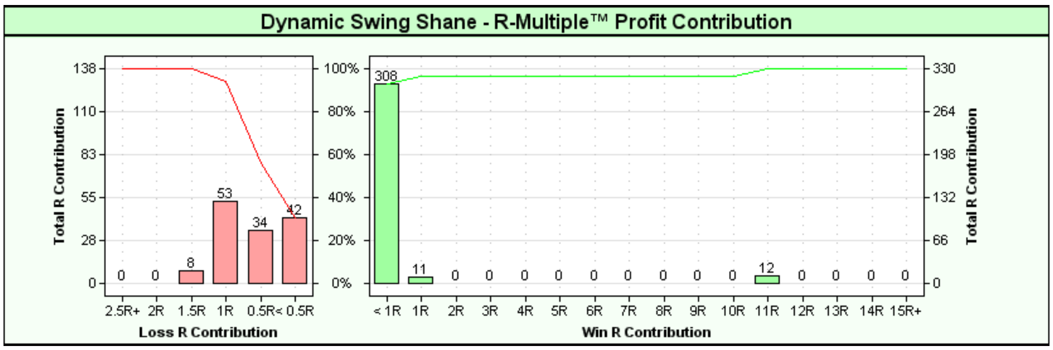
Monthly Returns



Monthly Return Distribution







Yearly Performance Summary

Year	Days	Closed Balance	End Total Equity	Total Equity Gain	Gain %	# Trades
2000	364	201,067.21	201,023.12	1,023.12	0.5%	15
2001	365	220,296.13	220,296.13	19,273.01	9.6%	35
2002	365	255,260.83	255,260.83	34,964.70	15.9%	63
2003	365	332,465.19	332,465.19	77,204.36	30.2%	99
2004	366	384,745.35	384,745.35	52,280.16	15.7%	120
2005	365	453,386.54	453,386.54	68,641.18	17.8%	108
2006	365	527,398.69	527,398.69	74,012.15	16.3%	87
2007	365	572,708.53	574,706.95	47,308.26	9.0%	83
2008	366	730,290.20	728,452.70	153,745.75	26.8%	99
2009	365	916,763.72	916,763.72	188,311.02	25.9%	125
2010	365	908,658.29	900,903.85	-15,859.87	-1.7%	104
2011	365	1,159,751.82	1,159,751.82	258,847.97	28.7%	98
2012	366	1,377,782.80	1,394,756.08	235,004.26	20.3%	91
2013	365	1,822,843.69	1,822,843.69	428,087.61	30.7%	109
2014	101	1,929,666.69	1,929,666.69	106,822.99	5.9%	32

Instrument Performance Summary

Symbol	Wins	%	Losses	%	Trades	Win Months	%	Loss Months	%	Avg. Win %	Avg. Loss %	Avg. Trade %	% Proft Factor
ES	210	76.4%	65	23.6%	275	141	82.0%	31	18.0%	0.45%	0.55%	0.22%	2.67
FCH	154	76.2%	48	23.8%	202	147	85.5%	25	14.5%	0.48%	0.39%	0.28%	4.00
NQ	217	70.7%	90	29.3%	307	140	81.4%	32	18.6%	0.45%	0.50%	0.17%	2.19
SXE	181	75.7%	58	24.3%	239	143	83.1%	29	16.9%	0.43%	0.58%	0.18%	2.31
TF	173	70.6%	72	29.4%	245	137	79.7%	35	20.3%	0.40%	0.64%	0.10%	1.51

Test Period for parameter run 1.

First Test Date	2000-01-03
Last Test Date	2014-04-11

Trading Performance

CAGR %	17.22%
MAR Ratio	0.87
RAR %	17.95%
R-Cubed	3.11
Robust Sharpe Ratio	1.67
Margin to Equity Ratio	4.71%
Daily Return %	0.0640%
Daily Geometric Return %	0.0435%

Win/Loss Statistics

Wins	935	73.7%
Losses	333	26.3%
Total	1268	100.0%
Winning Months	134	77.9%
Losing Months	38	22.1%
Total	172	100.0%
Average Risk Percent		1.31%

Daily Standard Deviation %	0.79%
Daily Downside Deviation %	0.77%
Daily Sharpe	0.070
Daily Geo Sharpe	0.045
Daily Sortino	0.072
Modified Sharpe Ratio	1.54
Annual Sharpe Ratio	1.35
Annual Sortino Ratio	+ ∞
Monthly Sharpe Ratio	0.36
Monthly Sortino Ratio	0.44
Calmar Ratio	1.02
R-Squared	0.992
Maximum Total Equity Drawdown %	19.87%
Longest Total Equity Drawdown (months)	9.43
Average Max TE Drawdown %	12.12%
Average Max TE Drawdown Length (months)	8.00
Maximum Monthly Total Equity Drawdown %	16.80%
Maximum Monthly Closed Equity Drawdown %	16.69%
Maximum Closed Equity Drawdown %	19.34%
Average Closed Equity Drawdown %	1.84%
Round Turns Per Million	616
Round Turns	6,362
Total Trades	1,268
Start Account Balance	200,000.00
Total Win Dollars	3,161,940.07
Total Loss Dollars	1,432,273.38
Total Profit	1,729,666.69
Earned Interest	0.00
Margin Interest	0.00
End Account Balance	1,929,666.69
End Open Equity	0.00
End Total Equity	1,929,666.69
Highest Total Equity	1,937,346.69
Highest Closed Equity	1,935,906.69
Total Commissions	63,620.00
Commission per Round Turn	10.00
Total Slippage	325,449.60
Slippage per Round Turn	51.16
Total Forex Carry	0.00
Total Dividends	0.00
Total Other Expenses	0.00

Average Win Percent	0.44%
Average Loss Percent	0.54%
Average Win Dollars	3,381.75
Average Loss Dollars	4,301.12
Average Trade Percent	0.19%
Average Trade Duration	5.87
Average Trade Dollars	1,364.09
Profit Factor	2.21
Percent Profit Factor	2.32
Expectation	0.14

Equity Management

Test Starting Equity	200,000.00
Order Generation Equity	0.00
Order Generation Equity High	0.00
Leverage (fraction)	1.00
Trading Equity Base	Total Equity
Drawdown Reduction Threshold (%)	0.00%
Drawdown Reduction Amount (%)	0.00%

Global Simulation Parameters

Earn Interest	FALSE
Earn Dividends	TRUE
Pay Margin on Stocks	TRUE
Commission per Stock Trade	0.00
Commission per Stock Share	0.01
Commission per Contract	10.00
Commission by Stock Value (%)	0.00%
Slippage Percent	5.00%
Minimum Slippage	10.00
Forex Trade Size	1,000.00
Account for Forex Carry	TRUE
Use Pip Based Slippage	FALSE
Account for Contract Rolls	TRUE
Roll Slippage in % of ATR	5.00%
Minimum Stock Volume	10,000
Minimum Futures Volume	0
Max Percent Volume Per Trade	0.00%
Entry Day Retracement	0.00%
Max Margin Equity	100.00%
Trade on Lock Days	FALSE
Convert Profit by Stock Split	TRUE
Trade Always on Tick	TRUE
Smart Fill Exit	TRUE
Use Start Date Stepping	FALSE
Use Broker Positions	FALSE

Preferences

Risk Free Rate	3.00%
Load Volume	TRUE
Load Unadjusted Close	TRUE
Raise Negative Data	FALSE
Process Weekly Bars	TRUE
Process Monthly Bars	TRUE
Process Daily Bars	TRUE
Process Weekends	TRUE
Additional Years of Data	5.00

Disclaimer

Hypothetical 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 hypothetical performance results and the actual results subsequently achieved by any particular trading program.

One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical 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 hypothetical performance results and all of which can adversely affect actual trading results.