



**Backtesting Report of the Trading Strategy**

## **Chaos Barometer**

### **Generic 1st Natural Gas**

Time Frame: **1 Day**

From **12 February, 2010 00:00:00**

to **11 February, 2015 00:00:00**

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February 11, 2015

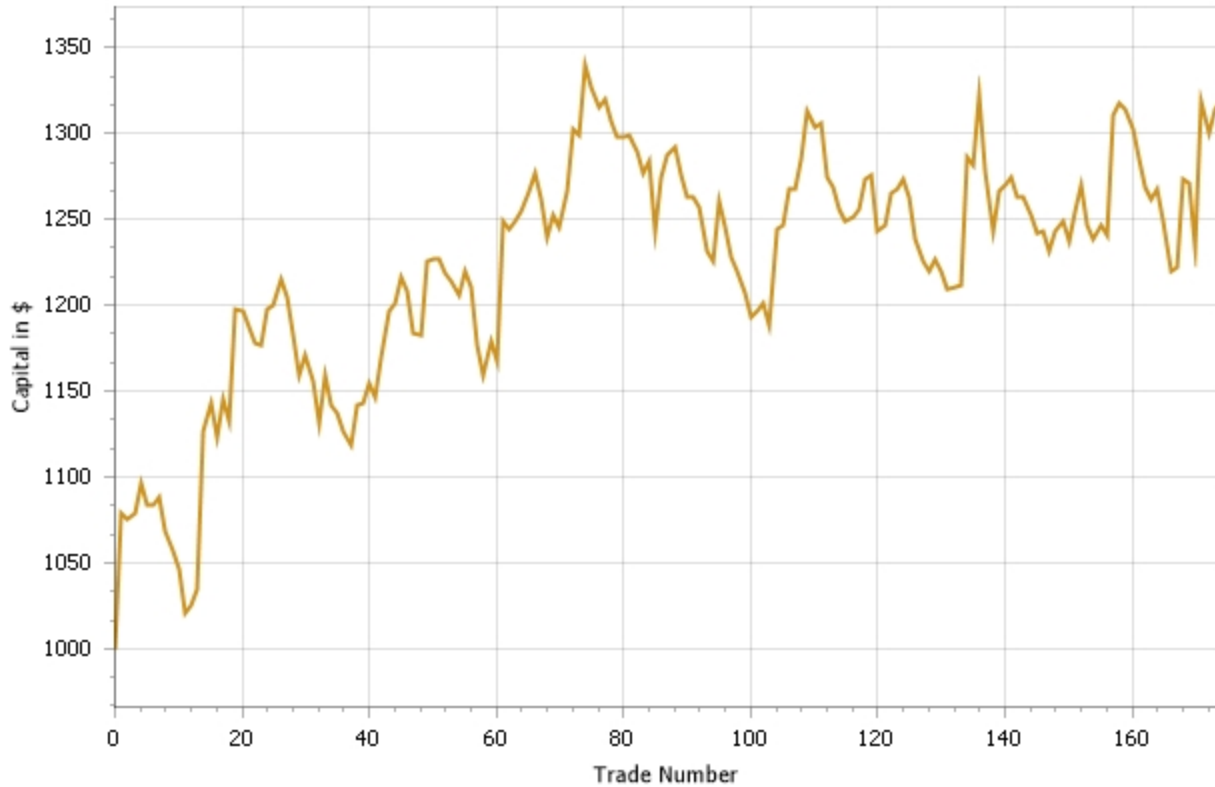
# 1

## Chaos Barometer

Settings, parameters, performance chart  
Full list of trades with entry and exit price

Strategy Setting	Value
Calculation base period	<b>9</b>
Trade entry excess threshold	<b>0</b>
Show only prevailing trend	<b>True</b>
Show trading signals	<b>True</b>
Trading Parameter	Value
Entry Comission	<b>0</b>
Exit Comission	<b>0</b>
Trade Volume	<b>100</b>
Reinvest Capital	<b>False</b>

## Trading Performance Chart



Maximum Drawdown:	<b>0</b>
Maximum Drawdown (Monte Carlo):	<b>-472.1</b>
Standard deviation:	<b>319.119252</b>
Annualized standard deviation:	<b>2447.30063687</b>
Downside deviation (MAR = 10%):	<b>11.90889506</b>
Value Added Monthly Index (VAMI):	<b>0</b>
Sharpe ratio (RFR = 5%):	<b>1.00009635</b>
Annualized Sharpe ratio (RFR = 5%):	<b>7.69413031</b>
Sortino ratio (MAR = 5%):	<b>0</b>
Annualized Sortino ratio (MAR = 5%):	<b>5.86267394</b>
Sterling ratio (MAR = 5%):	<b>0</b>
Calmar ratio:	<b>0</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **1** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



Performance Measure	Long Trades	Short Trades	All Trades
Total Trades	<b>87</b>	<b>87</b>	<b>174</b>
Winning Trades	<b>38</b>	<b>45</b>	<b>83</b>
Losing Trades	<b>49</b>	<b>41</b>	<b>90</b>
Breakeven Trades	<b>0</b>	<b>1</b>	<b>1</b>
Winning Trades %	<b>43.68 %</b>	<b>51.72 %</b>	<b>47.70 %</b>
Losing Trades %	<b>56.32 %</b>	<b>47.13 %</b>	<b>51.72 %</b>
Breakeven Trades %	<b>0.00 %</b>	<b>1.15 %</b>	<b>0.57 %</b>
Gross Profit	<b>722.90</b>	<b>823.10</b>	<b>1546.00</b>
Gross Loss	<b>-659.90</b>	<b>-566.90</b>	<b>-1226.80</b>
Net Profit	<b>722.90</b>	<b>823.10</b>	<b>1546.00</b>
Net Loss	<b>-659.90</b>	<b>-566.90</b>	<b>-1226.80</b>
Total Net Profit or Loss	<b>63.00</b>	<b>256.20</b>	<b>319.20</b>
Profit Factor	<b>1.10</b>	<b>1.45</b>	<b>1.26</b>
Average Trade Net Profit / Loss	<b>0.72</b>	<b>2.94</b>	<b>1.83</b>
Average Winning Trade	<b>19.02</b>	<b>18.29</b>	<b>18.63</b>
Largest Winning Trade	<b>91.40</b>	<b>84.90</b>	<b>91.40</b>
Most Consecutive Winning Trades	<b>1</b>	<b>1</b>	<b>4</b>
Average Bars in Winning Trades	<b>8.29</b>	<b>9.80</b>	<b>9.11</b>
Average Win / Average Loss	<b>1.41</b>	<b>1.32</b>	<b>1.37</b>
Average Losing Trade	<b>-13.47</b>	<b>-13.83</b>	<b>-13.63</b>
Largest Losing Trade	<b>-36.40</b>	<b>-43.90</b>	<b>-43.90</b>
Most Consecutive Losing Trades	<b>1</b>	<b>1</b>	<b>5</b>
Average Bars in Losing Trades	<b>5.92</b>	<b>4.66</b>	<b>5.34</b>
Maximum Shares/Contracts Held	<b>100</b>	<b>100</b>	<b>100</b>
% of Time in the Market	<b>48.00 %</b>	<b>51.00 %</b>	<b>99.00 %</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **1** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



## Profitability of Individual Trades

N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
1	2/26/2010 12:00:00 AM	4/7/2010 12:00:00 AM	100	4.81	481.3	4.02	560.7	Short
2	4/7/2010 12:00:00 AM	4/15/2010 12:00:00 AM	100	4.02	401.9	3.98	398.5	Long
3	4/15/2010 12:00:00 AM	4/21/2010 12:00:00 AM	100	3.98	398.5	3.96	401.5	Short
4	4/21/2010 12:00:00 AM	4/22/2010 12:00:00 AM	100	3.96	395.5	4.13	412.8	Long
5	4/22/2010 12:00:00 AM	4/23/2010 12:00:00 AM	100	4.13	412.8	4.26	399.9	Short
6	4/23/2010 12:00:00 AM	4/26/2010 12:00:00 AM	100	4.26	425.7	4.26	426.2	Long
7	4/26/2010 12:00:00 AM	4/27/2010 12:00:00 AM	100	4.26	426.2	4.22	430.8	Short
8	4/27/2010 12:00:00 AM	5/4/2010 12:00:00 AM	100	4.22	421.6	4.01	401.3	Long
9	5/4/2010 12:00:00 AM	5/11/2010 12:00:00 AM	100	4.01	401.3	4.13	389.5	Short
10	5/11/2010 12:00:00 AM	5/21/2010 12:00:00 AM	100	4.13	413.1	4.04	403.5	Long
11	5/21/2010 12:00:00 AM	5/27/2010 12:00:00 AM	100	4.04	403.5	4.29	377.6	Short
12	5/27/2010 12:00:00 AM	5/28/2010 12:00:00 AM	100	4.29	429.4	4.34	434.1	Long
13	5/28/2010 12:00:00 AM	6/1/2010 12:00:00 AM	100	4.34	434.1	4.25	443.4	Short
14	6/1/2010 12:00:00 AM	6/17/2010 12:00:00 AM	100	4.25	424.8	5.16	516.2	Long
15	6/17/2010 12:00:00 AM	6/18/2010 12:00:00 AM	100	5.16	516.2	5	532.7	Short
16	6/18/2010 12:00:00 AM	6/23/2010 12:00:00 AM	100	5	499.7	4.8	480.4	Long
17	6/23/2010 12:00:00 AM	7/20/2010 12:00:00 AM	100	4.8	480.4	4.59	501.8	Short
18	7/20/2010 12:00:00 AM	8/6/2010 12:00:00 AM	100	4.59	459	4.47	446.7	Long
19	8/6/2010 12:00:00 AM	9/8/2010 12:00:00 AM	100	4.47	446.7	3.81	512	Short
20	9/8/2010 12:00:00 AM	9/27/2010 12:00:00 AM	100	3.81	381.4	3.8	380	Long
21	9/27/2010 12:00:00 AM	10/28/2010 12:00:00 AM	100	3.8	380	3.89	371	Short
22	10/28/2010 12:00:00 AM	11/12/2010 12:00:00 AM	100	3.89	389	3.8	379.9	Long
23	11/12/2010 12:00:00 AM	11/16/2010 12:00:00 AM	100	3.8	379.9	3.82	378	Short
24	11/16/2010 12:00:00 AM	11/17/2010 12:00:00 AM	100	3.82	381.8	4.03	403	Long
25	11/17/2010 12:00:00 AM	11/18/2010 12:00:00 AM	100	4.03	403	4.01	405.3	Short
26	11/18/2010 12:00:00 AM	11/19/2010 12:00:00 AM	100	4.01	400.7	4.16	416.4	Long
27	11/19/2010 12:00:00 AM	11/22/2010 12:00:00 AM	100	4.16	416.4	4.27	405.7	Short
28	11/22/2010 12:00:00 AM	12/16/2010 12:00:00 AM	100	4.27	427.1	4.05	404.8	Long
29	12/16/2010 12:00:00 AM	12/29/2010 12:00:00 AM	100	4.05	404.8	4.29	380.9	Short
30	12/29/2010 12:00:00 AM	1/13/2011 12:00:00 AM	100	4.29	428.7	4.41	440.7	Long
31	1/13/2011 12:00:00 AM	1/19/2011 12:00:00 AM	100	4.41	440.7	4.56	425.3	Short
32	1/19/2011 12:00:00 AM	1/27/2011 12:00:00 AM	100	4.56	456.1	4.32	431.6	Long
33	1/27/2011 12:00:00 AM	2/28/2011 12:00:00 AM	100	4.32	431.6	4.04	459.5	Short
34	2/28/2011 12:00:00 AM	3/1/2011 12:00:00 AM	100	4.04	403.7	3.87	387.3	Long
35	3/1/2011 12:00:00 AM	3/7/2011 12:00:00 AM	100	3.87	387.3	3.93	381.9	Short
36	3/7/2011 12:00:00 AM	3/10/2011 12:00:00 AM	100	3.93	392.7	3.83	383	Long

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# NG1

Set: **1** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
37	3/10/2011 12:00:00 AM	3/14/2011 12:00:00 AM	100	3.83	383	3.91	374.6	Short
38	3/14/2011 12:00:00 AM	4/6/2011 12:00:00 AM	100	3.91	391.4	4.15	414.6	Long
39	4/6/2011 12:00:00 AM	4/18/2011 12:00:00 AM	100	4.15	414.6	4.14	415.4	Short
40	4/18/2011 12:00:00 AM	5/5/2011 12:00:00 AM	100	4.14	413.8	4.26	426.1	Long
41	5/5/2011 12:00:00 AM	5/23/2011 12:00:00 AM	100	4.26	426.1	4.35	417.6	Short
42	5/23/2011 12:00:00 AM	6/14/2011 12:00:00 AM	100	4.35	434.6	4.58	458.1	Long
43	6/14/2011 12:00:00 AM	6/29/2011 12:00:00 AM	100	4.58	458.1	4.32	484.7	Short
44	6/29/2011 12:00:00 AM	7/5/2011 12:00:00 AM	100	4.32	431.5	4.36	436.3	Long
45	7/5/2011 12:00:00 AM	7/6/2011 12:00:00 AM	100	4.36	436.3	4.22	450.9	Short
46	7/6/2011 12:00:00 AM	7/7/2011 12:00:00 AM	100	4.22	421.7	4.13	413.3	Long
47	7/7/2011 12:00:00 AM	7/14/2011 12:00:00 AM	100	4.13	413.3	4.38	388.8	Short
48	7/14/2011 12:00:00 AM	7/26/2011 12:00:00 AM	100	4.38	437.8	4.37	437	Long
49	7/26/2011 12:00:00 AM	8/16/2011 12:00:00 AM	100	4.37	437	3.93	480.8	Short
50	8/16/2011 12:00:00 AM	8/17/2011 12:00:00 AM	100	3.93	393.2	3.93	393.3	Long
51	8/17/2011 12:00:00 AM	8/26/2011 12:00:00 AM	100	3.93	393.3	3.93	393.5	Short
52	8/26/2011 12:00:00 AM	8/29/2011 12:00:00 AM	100	3.93	393.1	3.86	385.7	Long
53	8/29/2011 12:00:00 AM	8/30/2011 12:00:00 AM	100	3.86	385.7	3.91	380.5	Short
54	8/30/2011 12:00:00 AM	9/19/2011 12:00:00 AM	100	3.91	390.9	3.83	382.9	Long
55	9/19/2011 12:00:00 AM	10/17/2011 12:00:00 AM	100	3.83	382.9	3.69	397	Short
56	10/17/2011 12:00:00 AM	10/26/2011 12:00:00 AM	100	3.69	368.8	3.59	359	Long
57	10/26/2011 12:00:00 AM	10/28/2011 12:00:00 AM	100	3.59	359	3.92	325.7	Short
58	10/28/2011 12:00:00 AM	11/8/2011 12:00:00 AM	100	3.92	392.3	3.75	374.5	Long
59	11/8/2011 12:00:00 AM	11/25/2011 12:00:00 AM	100	3.75	374.5	3.54	394.8	Short
60	11/25/2011 12:00:00 AM	12/7/2011 12:00:00 AM	100	3.54	354.2	3.42	342.1	Long
61	12/7/2011 12:00:00 AM	1/26/2012 12:00:00 AM	100	3.42	342.1	2.61	423.7	Short
62	1/26/2012 12:00:00 AM	2/2/2012 12:00:00 AM	100	2.61	260.5	2.55	255.4	Long
63	2/2/2012 12:00:00 AM	2/3/2012 12:00:00 AM	100	2.55	255.4	2.5	260.9	Short
64	2/3/2012 12:00:00 AM	2/6/2012 12:00:00 AM	100	2.5	249.9	2.55	255	Long
65	2/6/2012 12:00:00 AM	2/13/2012 12:00:00 AM	100	2.55	255	2.43	266.9	Short
66	2/13/2012 12:00:00 AM	2/14/2012 12:00:00 AM	100	2.43	243.1	2.53	253.2	Long
67	2/14/2012 12:00:00 AM	2/17/2012 12:00:00 AM	100	2.53	253.2	2.68	238	Short
68	2/17/2012 12:00:00 AM	3/1/2012 12:00:00 AM	100	2.68	268.4	2.46	246.3	Long
69	3/1/2012 12:00:00 AM	3/20/2012 12:00:00 AM	100	2.46	246.3	2.34	259.1	Short
70	3/20/2012 12:00:00 AM	3/23/2012 12:00:00 AM	100	2.34	233.5	2.27	227.5	Long
71	3/23/2012 12:00:00 AM	4/25/2012 12:00:00 AM	100	2.27	227.5	2.07	248.2	Short
72	4/25/2012 12:00:00 AM	5/29/2012 12:00:00 AM	100	2.07	206.8	2.43	242.9	Long
73	5/29/2012 12:00:00 AM	6/15/2012 12:00:00 AM	100	2.43	242.9	2.47	239.1	Short
74	6/15/2012 12:00:00 AM	7/13/2012 12:00:00 AM	100	2.47	246.7	2.87	287.4	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **1** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
75	7/13/2012 12:00:00 AM	7/19/2012 12:00:00 AM	100	2.87	287.4	3	274.9	Short
76	7/19/2012 12:00:00 AM	8/3/2012 12:00:00 AM	100	3	299.9	2.88	287.7	Long
77	8/3/2012 12:00:00 AM	8/22/2012 12:00:00 AM	100	2.88	287.7	2.83	292.8	Short
78	8/22/2012 12:00:00 AM	8/24/2012 12:00:00 AM	100	2.83	282.6	2.7	270.2	Long
79	8/24/2012 12:00:00 AM	8/31/2012 12:00:00 AM	100	2.7	270.2	2.8	260.5	Short
80	8/31/2012 12:00:00 AM	9/5/2012 12:00:00 AM	100	2.8	279.9	2.79	279.5	Long
81	9/5/2012 12:00:00 AM	9/6/2012 12:00:00 AM	100	2.79	279.5	2.78	281.4	Short
82	9/6/2012 12:00:00 AM	9/7/2012 12:00:00 AM	100	2.78	277.6	2.68	268.2	Long
83	9/7/2012 12:00:00 AM	9/10/2012 12:00:00 AM	100	2.68	268.2	2.81	255.2	Short
84	9/10/2012 12:00:00 AM	9/21/2012 12:00:00 AM	100	2.81	281.2	2.88	288.5	Long
85	9/21/2012 12:00:00 AM	9/27/2012 12:00:00 AM	100	2.88	288.5	3.3	247.3	Short
86	9/27/2012 12:00:00 AM	10/12/2012 12:00:00 AM	100	3.3	329.7	3.61	361.1	Long
87	10/12/2012 12:00:00 AM	10/15/2012 12:00:00 AM	100	3.61	361.1	3.49	373.6	Short
88	10/15/2012 12:00:00 AM	10/23/2012 12:00:00 AM	100	3.49	348.6	3.54	353.5	Long
89	10/23/2012 12:00:00 AM	10/30/2012 12:00:00 AM	100	3.54	353.5	3.69	337.9	Short
90	10/30/2012 12:00:00 AM	11/2/2012 12:00:00 AM	100	3.69	369.1	3.55	355.4	Long
91	11/2/2012 12:00:00 AM	11/5/2012 12:00:00 AM	100	3.55	355.4	3.55	355.4	Short
92	11/5/2012 12:00:00 AM	11/9/2012 12:00:00 AM	100	3.55	355.4	3.5	350.3	Long
93	11/9/2012 12:00:00 AM	11/14/2012 12:00:00 AM	100	3.5	350.3	3.76	324.6	Short
94	11/14/2012 12:00:00 AM	11/28/2012 12:00:00 AM	100	3.76	376	3.7	369.6	Long
95	11/28/2012 12:00:00 AM	12/24/2012 12:00:00 AM	100	3.7	369.6	3.35	404.6	Short
96	12/24/2012 12:00:00 AM	1/3/2013 12:00:00 AM	100	3.35	334.6	3.2	319.8	Long
97	1/3/2013 12:00:00 AM	1/14/2013 12:00:00 AM	100	3.2	319.8	3.37	302.3	Short
98	1/14/2013 12:00:00 AM	1/28/2013 12:00:00 AM	100	3.37	337.3	3.29	328.9	Long
99	1/28/2013 12:00:00 AM	2/6/2013 12:00:00 AM	100	3.29	328.9	3.42	316	Short
100	2/6/2013 12:00:00 AM	2/11/2013 12:00:00 AM	100	3.42	341.8	3.28	327.9	Long
101	2/11/2013 12:00:00 AM	2/21/2013 12:00:00 AM	100	3.28	327.9	3.25	331.2	Short
102	2/21/2013 12:00:00 AM	2/22/2013 12:00:00 AM	100	3.25	324.6	3.29	329.1	Long
103	2/22/2013 12:00:00 AM	2/25/2013 12:00:00 AM	100	3.29	329.1	3.41	316.8	Short
104	2/25/2013 12:00:00 AM	4/2/2013 12:00:00 AM	100	3.41	341.4	3.97	396.9	Long
105	4/2/2013 12:00:00 AM	4/4/2013 12:00:00 AM	100	3.97	396.9	3.95	399.1	Short
106	4/4/2013 12:00:00 AM	4/24/2013 12:00:00 AM	100	3.95	394.7	4.17	416.6	Long
107	4/24/2013 12:00:00 AM	4/25/2013 12:00:00 AM	100	4.17	416.6	4.17	416.5	Short
108	4/25/2013 12:00:00 AM	4/30/2013 12:00:00 AM	100	4.17	416.7	4.34	434.3	Long
109	4/30/2013 12:00:00 AM	5/15/2013 12:00:00 AM	100	4.34	434.3	4.07	461.6	Short
110	5/15/2013 12:00:00 AM	5/31/2013 12:00:00 AM	100	4.07	407	3.98	398.4	Long
111	5/31/2013 12:00:00 AM	6/19/2013 12:00:00 AM	100	3.98	398.4	3.96	400.5	Short
112	6/19/2013 12:00:00 AM	6/25/2013 12:00:00 AM	100	3.96	396.3	3.65	364.7	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **1** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
113	6/25/2013 12:00:00 AM	6/26/2013 12:00:00 AM	100	3.65	364.7	3.71	358.7	Short
114	6/26/2013 12:00:00 AM	6/27/2013 12:00:00 AM	100	3.71	370.7	3.58	358.2	Long
115	6/27/2013 12:00:00 AM	7/9/2013 12:00:00 AM	100	3.58	358.2	3.66	350.7	Short
116	7/9/2013 12:00:00 AM	7/16/2013 12:00:00 AM	100	3.66	365.7	3.68	367.7	Long
117	7/16/2013 12:00:00 AM	7/17/2013 12:00:00 AM	100	3.68	367.7	3.63	372.5	Short
118	7/17/2013 12:00:00 AM	7/18/2013 12:00:00 AM	100	3.63	362.9	3.81	381.2	Long
119	7/18/2013 12:00:00 AM	7/19/2013 12:00:00 AM	100	3.81	381.2	3.79	383.5	Short
120	7/19/2013 12:00:00 AM	7/29/2013 12:00:00 AM	100	3.79	378.9	3.46	345.9	Long
121	7/29/2013 12:00:00 AM	8/15/2013 12:00:00 AM	100	3.46	345.9	3.42	349.9	Short
122	8/15/2013 12:00:00 AM	9/9/2013 12:00:00 AM	100	3.42	341.9	3.61	360.5	Long
123	9/9/2013 12:00:00 AM	9/10/2013 12:00:00 AM	100	3.61	360.5	3.58	362.6	Short
124	9/10/2013 12:00:00 AM	9/12/2013 12:00:00 AM	100	3.58	358.4	3.64	363.8	Long
125	9/12/2013 12:00:00 AM	9/16/2013 12:00:00 AM	100	3.64	363.8	3.74	353.8	Short
126	9/16/2013 12:00:00 AM	9/25/2013 12:00:00 AM	100	3.74	373.8	3.49	349.3	Long
127	9/25/2013 12:00:00 AM	10/7/2013 12:00:00 AM	100	3.49	349.3	3.63	335.7	Short
128	10/7/2013 12:00:00 AM	10/22/2013 12:00:00 AM	100	3.63	362.9	3.58	358.1	Long
129	10/22/2013 12:00:00 AM	11/1/2013 12:00:00 AM	100	3.58	358.1	3.51	364.9	Short
130	11/1/2013 12:00:00 AM	11/4/2013 12:00:00 AM	100	3.51	351.3	3.44	344.5	Long
131	11/4/2013 12:00:00 AM	11/8/2013 12:00:00 AM	100	3.44	344.5	3.56	333.1	Short
132	11/8/2013 12:00:00 AM	11/11/2013 12:00:00 AM	100	3.56	355.9	3.57	357.4	Long
133	11/11/2013 12:00:00 AM	11/13/2013 12:00:00 AM	100	3.57	357.4	3.57	358.2	Short
134	11/13/2013 12:00:00 AM	1/2/2014 12:00:00 AM	100	3.57	356.6	4.32	432.1	Long
135	1/2/2014 12:00:00 AM	1/14/2014 12:00:00 AM	100	4.32	432.1	4.37	427.3	Short
136	1/14/2014 12:00:00 AM	2/7/2014 12:00:00 AM	100	4.37	436.9	4.78	477.5	Long
137	2/7/2014 12:00:00 AM	2/14/2014 12:00:00 AM	100	4.78	477.5	5.21	433.6	Short
138	2/14/2014 12:00:00 AM	2/26/2014 12:00:00 AM	100	5.21	521.4	4.86	485.5	Long
139	2/26/2014 12:00:00 AM	3/7/2014 12:00:00 AM	100	4.86	485.5	4.62	509.2	Short
140	3/7/2014 12:00:00 AM	3/10/2014 12:00:00 AM	100	4.62	461.8	4.65	465.1	Long
141	3/10/2014 12:00:00 AM	3/11/2014 12:00:00 AM	100	4.65	465.1	4.61	469.7	Short
142	3/11/2014 12:00:00 AM	3/12/2014 12:00:00 AM	100	4.61	460.5	4.49	449	Long
143	3/12/2014 12:00:00 AM	3/28/2014 12:00:00 AM	100	4.49	449	4.49	449.5	Short
144	3/28/2014 12:00:00 AM	3/31/2014 12:00:00 AM	100	4.49	448.5	4.37	437.1	Long
145	3/31/2014 12:00:00 AM	4/3/2014 12:00:00 AM	100	4.37	437.1	4.47	427.2	Short
146	4/3/2014 12:00:00 AM	4/7/2014 12:00:00 AM	100	4.47	447	4.48	447.6	Long
147	4/7/2014 12:00:00 AM	4/9/2014 12:00:00 AM	100	4.48	447.6	4.59	436.6	Short
148	4/9/2014 12:00:00 AM	4/24/2014 12:00:00 AM	100	4.59	458.6	4.71	470.5	Long
149	4/24/2014 12:00:00 AM	4/25/2014 12:00:00 AM	100	4.71	470.5	4.65	476.3	Short
150	4/25/2014 12:00:00 AM	5/9/2014 12:00:00 AM	100	4.65	464.7	4.53	453.1	Long



## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **1** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
151	5/9/2014 12:00:00 AM	5/22/2014 12:00:00 AM	100	4.53	453.1	4.36	470.3	Short
152	5/22/2014 12:00:00 AM	6/11/2014 12:00:00 AM	100	4.36	435.9	4.51	450.8	Long
153	6/11/2014 12:00:00 AM	6/13/2014 12:00:00 AM	100	4.51	450.8	4.74	427.7	Short
154	6/13/2014 12:00:00 AM	6/18/2014 12:00:00 AM	100	4.74	473.9	4.66	465.9	Long
155	6/18/2014 12:00:00 AM	6/19/2014 12:00:00 AM	100	4.66	465.9	4.58	473.4	Short
156	6/19/2014 12:00:00 AM	6/24/2014 12:00:00 AM	100	4.58	458.4	4.54	453.5	Long
157	6/24/2014 12:00:00 AM	7/31/2014 12:00:00 AM	100	4.54	453.5	3.84	522.9	Short
158	7/31/2014 12:00:00 AM	8/14/2014 12:00:00 AM	100	3.84	384.1	3.91	390.6	Long
159	8/14/2014 12:00:00 AM	8/25/2014 12:00:00 AM	100	3.91	390.6	3.94	387.5	Short
160	8/25/2014 12:00:00 AM	9/4/2014 12:00:00 AM	100	3.94	393.7	3.82	381.9	Long
161	9/4/2014 12:00:00 AM	9/16/2014 12:00:00 AM	100	3.82	381.9	4	364.3	Short
162	9/16/2014 12:00:00 AM	9/19/2014 12:00:00 AM	100	4	399.5	3.84	383.7	Long
163	9/19/2014 12:00:00 AM	9/24/2014 12:00:00 AM	100	3.84	383.7	3.91	376.3	Short
164	9/24/2014 12:00:00 AM	9/25/2014 12:00:00 AM	100	3.91	391.1	3.97	397.1	Long
165	9/25/2014 12:00:00 AM	9/29/2014 12:00:00 AM	100	3.97	397.1	4.15	378.8	Short
166	9/29/2014 12:00:00 AM	10/8/2014 12:00:00 AM	100	4.15	415.4	3.86	385.5	Long
167	10/8/2014 12:00:00 AM	10/30/2014 12:00:00 AM	100	3.86	385.5	3.83	388.3	Short
168	10/30/2014 12:00:00 AM	11/17/2014 12:00:00 AM	100	3.83	382.7	4.34	434.1	Long
169	11/17/2014 12:00:00 AM	11/19/2014 12:00:00 AM	100	4.34	434.1	4.37	431.1	Short
170	11/19/2014 12:00:00 AM	12/1/2014 12:00:00 AM	100	4.37	437.1	4.01	400.7	Long
171	12/1/2014 12:00:00 AM	1/15/2015 12:00:00 AM	100	4.01	400.7	3.16	485.6	Short
172	1/15/2015 12:00:00 AM	1/21/2015 12:00:00 AM	100	3.16	315.8	2.97	297.4	Long
173	1/21/2015 12:00:00 AM	1/22/2015 12:00:00 AM	100	2.97	297.4	2.84	311.3	Short
174	1/22/2015 12:00:00 AM	1/26/2015 12:00:00 AM	100	2.84	283.5	2.88	288.1	Long

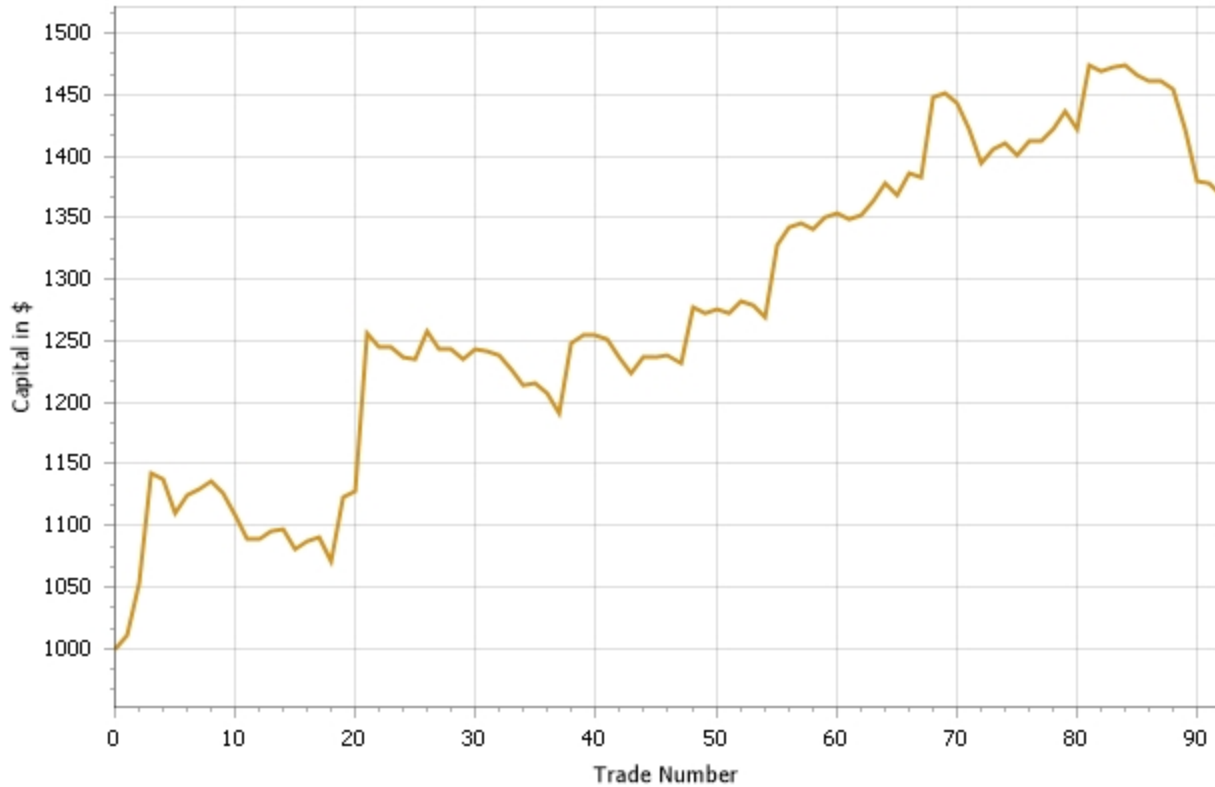
# 2

## Chaos Barometer

Settings, parameters, performance chart  
Full list of trades with entry and exit price

Strategy Setting	Value
Calculation base period	<b>34</b>
Trade entry excess threshold	<b>0</b>
Show only prevailing trend	<b>True</b>
Show trading signals	<b>True</b>
Trading Parameter	Value
Entry Comission	<b>0</b>
Exit Comission	<b>0</b>
Trade Volume	<b>100</b>
Reinvest Capital	<b>False</b>

## Trading Performance Chart



Maximum Drawdown:	<b>0</b>
Maximum Drawdown (Monte Carlo):	<b>-265.6</b>
Standard deviation:	<b>366.8150263</b>
Annualized standard deviation:	<b>2761.68775958</b>
Downside deviation (MAR = 10%):	<b>9.75654741</b>
Value Added Monthly Index (VAMI):	<b>0</b>
Sharpe ratio (RFR = 5%):	<b>1.00309413</b>
Annualized Sharpe ratio (RFR = 5%):	<b>7.59432341</b>
Sortino ratio (MAR = 5%):	<b>0.69360818</b>
Annualized Sortino ratio (MAR = 5%):	<b>0</b>
Sterling ratio (MAR = 5%):	<b>0.70388641</b>
Calmar ratio:	<b>0</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **2** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



Performance Measure	Long Trades	Short Trades	All Trades
Total Trades	<b>46</b>	<b>46</b>	<b>92</b>
Winning Trades	<b>25</b>	<b>19</b>	<b>44</b>
Losing Trades	<b>21</b>	<b>27</b>	<b>48</b>
Breakeven Trades	<b>0</b>	<b>0</b>	<b>0</b>
Winning Trades %	<b>54.35 %</b>	<b>41.30 %</b>	<b>47.83 %</b>
Losing Trades %	<b>45.65 %</b>	<b>58.70 %</b>	<b>52.17 %</b>
Breakeven Trades %	<b>0.00 %</b>	<b>0.00 %</b>	<b>0.00 %</b>
Gross Profit	<b>385.40</b>	<b>467.40</b>	<b>852.80</b>
Gross Loss	<b>-234.30</b>	<b>-250.50</b>	<b>-484.80</b>
Net Profit	<b>385.40</b>	<b>467.40</b>	<b>852.80</b>
Net Loss	<b>-234.30</b>	<b>-250.50</b>	<b>-484.80</b>
Total Net Profit or Loss	<b>151.10</b>	<b>216.90</b>	<b>368.00</b>
Profit Factor	<b>1.64</b>	<b>1.87</b>	<b>1.76</b>
Average Trade Net Profit / Loss	<b>3.28</b>	<b>4.72</b>	<b>4.00</b>
Average Winning Trade	<b>15.42</b>	<b>24.60</b>	<b>19.38</b>
Largest Winning Trade	<b>66.30</b>	<b>128.20</b>	<b>128.20</b>
Most Consecutive Winning Trades	<b>1</b>	<b>1</b>	<b>4</b>
Average Bars in Winning Trades	<b>15.56</b>	<b>24.32</b>	<b>19.34</b>
Average Win / Average Loss	<b>1.38</b>	<b>2.65</b>	<b>1.92</b>
Average Losing Trade	<b>-11.16</b>	<b>-9.28</b>	<b>-10.10</b>
Largest Losing Trade	<b>-42.30</b>	<b>-32.90</b>	<b>-42.30</b>
Most Consecutive Losing Trades	<b>1</b>	<b>1</b>	<b>8</b>
Average Bars in Losing Trades	<b>8.57</b>	<b>5.78</b>	<b>7.00</b>
Maximum Shares/Contracts Held	<b>100</b>	<b>100</b>	<b>100</b>
% of Time in the Market	<b>47.00 %</b>	<b>52.00 %</b>	<b>100.00 %</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **2** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



## Profitability of Individual Trades

N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
1	4/5/2010 12:00:00 AM	5/10/2010 12:00:00 AM	100	4.28	427.7	4.17	438.4	Short
2	5/10/2010 12:00:00 AM	7/20/2010 12:00:00 AM	100	4.17	417	4.59	459	Long
3	7/20/2010 12:00:00 AM	10/13/2010 12:00:00 AM	100	4.59	459	3.7	548.4	Short
4	10/13/2010 12:00:00 AM	10/14/2010 12:00:00 AM	100	3.7	369.6	3.66	365.7	Long
5	10/14/2010 12:00:00 AM	11/5/2010 12:00:00 AM	100	3.66	365.7	3.94	337.7	Short
6	11/5/2010 12:00:00 AM	11/8/2010 12:00:00 AM	100	3.94	393.7	4.09	408.8	Long
7	11/8/2010 12:00:00 AM	11/10/2010 12:00:00 AM	100	4.09	408.8	4.05	413	Short
8	11/10/2010 12:00:00 AM	12/27/2010 12:00:00 AM	100	4.05	404.6	4.11	411.2	Long
9	12/27/2010 12:00:00 AM	12/28/2010 12:00:00 AM	100	4.11	411.2	4.22	400.8	Short
10	12/28/2010 12:00:00 AM	2/9/2011 12:00:00 AM	100	4.22	421.6	4.04	404.4	Long
11	2/9/2011 12:00:00 AM	3/24/2011 12:00:00 AM	100	4.04	404.4	4.24	384.4	Short
12	3/24/2011 12:00:00 AM	5/10/2011 12:00:00 AM	100	4.24	424.4	4.25	424.6	Long
13	5/10/2011 12:00:00 AM	5/11/2011 12:00:00 AM	100	4.25	424.6	4.18	431.1	Short
14	5/11/2011 12:00:00 AM	5/12/2011 12:00:00 AM	100	4.18	418.1	4.19	419.4	Long
15	5/12/2011 12:00:00 AM	5/23/2011 12:00:00 AM	100	4.19	419.4	4.35	404.2	Short
16	5/23/2011 12:00:00 AM	6/16/2011 12:00:00 AM	100	4.35	434.6	4.41	441.2	Long
17	6/16/2011 12:00:00 AM	6/21/2011 12:00:00 AM	100	4.41	441.2	4.39	443.6	Short
18	6/21/2011 12:00:00 AM	7/8/2011 12:00:00 AM	100	4.39	438.8	4.21	420.5	Long
19	7/8/2011 12:00:00 AM	11/7/2011 12:00:00 AM	100	4.21	420.5	3.7	471.4	Short
20	11/7/2011 12:00:00 AM	11/8/2011 12:00:00 AM	100	3.7	369.6	3.75	374.5	Long
21	11/8/2011 12:00:00 AM	3/1/2012 12:00:00 AM	100	3.75	374.5	2.46	502.7	Short
22	3/1/2012 12:00:00 AM	3/5/2012 12:00:00 AM	100	2.46	246.3	2.36	235.5	Long
23	3/5/2012 12:00:00 AM	3/6/2012 12:00:00 AM	100	2.36	235.5	2.36	235.4	Short
24	3/6/2012 12:00:00 AM	3/8/2012 12:00:00 AM	100	2.36	235.6	2.27	227.2	Long
25	3/8/2012 12:00:00 AM	5/4/2012 12:00:00 AM	100	2.27	227.2	2.28	226.5	Short
26	5/4/2012 12:00:00 AM	6/14/2012 12:00:00 AM	100	2.28	227.9	2.5	249.5	Long
27	6/14/2012 12:00:00 AM	6/18/2012 12:00:00 AM	100	2.5	249.5	2.63	235.5	Short
28	6/18/2012 12:00:00 AM	6/22/2012 12:00:00 AM	100	2.63	263.5	2.63	262.5	Long
29	6/22/2012 12:00:00 AM	6/25/2012 12:00:00 AM	100	2.63	262.5	2.69	255.6	Short
30	6/25/2012 12:00:00 AM	6/26/2012 12:00:00 AM	100	2.69	269.4	2.77	276.7	Long
31	6/26/2012 12:00:00 AM	6/27/2012 12:00:00 AM	100	2.77	276.7	2.77	276	Short
32	6/27/2012 12:00:00 AM	7/10/2012 12:00:00 AM	100	2.77	277.4	2.74	273.7	Long
33	7/10/2012 12:00:00 AM	7/11/2012 12:00:00 AM	100	2.74	273.7	2.85	262.1	Short
34	7/11/2012 12:00:00 AM	8/16/2012 12:00:00 AM	100	2.85	285.3	2.72	272.4	Long
35	8/16/2012 12:00:00 AM	8/24/2012 12:00:00 AM	100	2.72	272.4	2.7	274.6	Short
36	8/24/2012 12:00:00 AM	8/28/2012 12:00:00 AM	100	2.7	270.2	2.61	261.4	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **2** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
37	8/28/2012 12:00:00 AM	9/18/2012 12:00:00 AM	100	2.61	261.4	2.77	245.5	Short
38	9/18/2012 12:00:00 AM	12/13/2012 12:00:00 AM	100	2.77	277.3	3.35	334.7	Long
39	12/13/2012 12:00:00 AM	2/7/2013 12:00:00 AM	100	3.35	334.7	3.29	340.9	Short
40	2/7/2013 12:00:00 AM	2/11/2013 12:00:00 AM	100	3.29	328.5	3.28	327.9	Long
41	2/11/2013 12:00:00 AM	2/13/2013 12:00:00 AM	100	3.28	327.9	3.31	325.2	Short
42	2/13/2013 12:00:00 AM	2/15/2013 12:00:00 AM	100	3.31	330.6	3.15	315.3	Long
43	2/15/2013 12:00:00 AM	2/20/2013 12:00:00 AM	100	3.15	315.3	3.28	302.7	Short
44	2/20/2013 12:00:00 AM	2/25/2013 12:00:00 AM	100	3.28	327.9	3.41	341.4	Long
45	2/25/2013 12:00:00 AM	2/26/2013 12:00:00 AM	100	3.41	341.4	3.43	340.1	Short
46	2/26/2013 12:00:00 AM	3/1/2013 12:00:00 AM	100	3.43	342.7	3.46	345.6	Long
47	3/1/2013 12:00:00 AM	3/4/2013 12:00:00 AM	100	3.46	345.6	3.53	338.3	Short
48	3/4/2013 12:00:00 AM	5/9/2013 12:00:00 AM	100	3.53	352.9	3.98	398.3	Long
49	5/9/2013 12:00:00 AM	5/14/2013 12:00:00 AM	100	3.98	398.3	4.02	394.2	Short
50	5/14/2013 12:00:00 AM	5/17/2013 12:00:00 AM	100	4.02	402.4	4.05	405.5	Long
51	5/17/2013 12:00:00 AM	5/20/2013 12:00:00 AM	100	4.05	405.5	4.09	402	Short
52	5/20/2013 12:00:00 AM	5/21/2013 12:00:00 AM	100	4.09	409	4.19	419.2	Long
53	5/21/2013 12:00:00 AM	5/24/2013 12:00:00 AM	100	4.19	419.2	4.24	414.7	Short
54	5/24/2013 12:00:00 AM	5/29/2013 12:00:00 AM	100	4.24	423.7	4.15	414.8	Long
55	5/29/2013 12:00:00 AM	9/11/2013 12:00:00 AM	100	4.15	414.8	3.57	472.9	Short
56	9/11/2013 12:00:00 AM	10/8/2013 12:00:00 AM	100	3.57	356.7	3.72	371.6	Long
57	10/8/2013 12:00:00 AM	10/9/2013 12:00:00 AM	100	3.72	371.6	3.68	375.3	Short
58	10/9/2013 12:00:00 AM	10/30/2013 12:00:00 AM	100	3.68	367.9	3.62	362	Long
59	10/30/2013 12:00:00 AM	11/7/2013 12:00:00 AM	100	3.62	362	3.52	372.1	Short
60	11/7/2013 12:00:00 AM	11/8/2013 12:00:00 AM	100	3.52	351.9	3.56	355.9	Long
61	11/8/2013 12:00:00 AM	11/12/2013 12:00:00 AM	100	3.56	355.9	3.62	350.1	Short
62	11/12/2013 12:00:00 AM	11/15/2013 12:00:00 AM	100	3.62	361.7	3.66	366	Long
63	11/15/2013 12:00:00 AM	11/19/2013 12:00:00 AM	100	3.66	366	3.56	376.4	Short
64	11/19/2013 12:00:00 AM	11/21/2013 12:00:00 AM	100	3.56	355.6	3.7	370.2	Long
65	11/21/2013 12:00:00 AM	11/25/2013 12:00:00 AM	100	3.7	370.2	3.79	361.5	Short
66	11/25/2013 12:00:00 AM	11/29/2013 12:00:00 AM	100	3.79	378.9	3.95	395.4	Long
67	11/29/2013 12:00:00 AM	12/2/2013 12:00:00 AM	100	3.95	395.4	3.99	392	Short
68	12/2/2013 12:00:00 AM	3/10/2014 12:00:00 AM	100	3.99	398.8	4.65	465.1	Long
69	3/10/2014 12:00:00 AM	4/11/2014 12:00:00 AM	100	4.65	465.1	4.62	468.2	Short
70	4/11/2014 12:00:00 AM	4/16/2014 12:00:00 AM	100	4.62	462	4.53	453	Long
71	4/16/2014 12:00:00 AM	4/17/2014 12:00:00 AM	100	4.53	453	4.74	431.9	Short
72	4/17/2014 12:00:00 AM	5/21/2014 12:00:00 AM	100	4.74	474.1	4.47	447.3	Long
73	5/21/2014 12:00:00 AM	5/22/2014 12:00:00 AM	100	4.47	447.3	4.36	458.7	Short
74	5/22/2014 12:00:00 AM	5/23/2014 12:00:00 AM	100	4.36	435.9	4.41	440.5	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **2** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
75	5/23/2014 12:00:00 AM	5/27/2014 12:00:00 AM	100	4.41	440.5	4.5	430.5	Short
76	5/27/2014 12:00:00 AM	5/28/2014 12:00:00 AM	100	4.5	450.5	4.62	461.9	Long
77	5/28/2014 12:00:00 AM	6/2/2014 12:00:00 AM	100	4.62	461.9	4.61	462.6	Short
78	6/2/2014 12:00:00 AM	6/5/2014 12:00:00 AM	100	4.61	461.2	4.7	470.1	Long
79	6/5/2014 12:00:00 AM	6/25/2014 12:00:00 AM	100	4.7	470.1	4.55	484.9	Short
80	6/25/2014 12:00:00 AM	7/3/2014 12:00:00 AM	100	4.55	455.3	4.41	440.6	Long
81	7/3/2014 12:00:00 AM	9/2/2014 12:00:00 AM	100	4.41	440.6	3.89	492.2	Short
82	9/2/2014 12:00:00 AM	9/3/2014 12:00:00 AM	100	3.89	389	3.85	384.7	Long
83	9/3/2014 12:00:00 AM	9/4/2014 12:00:00 AM	100	3.85	384.7	3.82	387.5	Short
84	9/4/2014 12:00:00 AM	9/19/2014 12:00:00 AM	100	3.82	381.9	3.84	383.7	Long
85	9/19/2014 12:00:00 AM	9/24/2014 12:00:00 AM	100	3.84	383.7	3.91	376.3	Short
86	9/24/2014 12:00:00 AM	10/8/2014 12:00:00 AM	100	3.91	391.1	3.86	385.5	Long
87	10/8/2014 12:00:00 AM	10/10/2014 12:00:00 AM	100	3.86	385.5	3.86	385.1	Short
88	10/10/2014 12:00:00 AM	10/15/2014 12:00:00 AM	100	3.86	385.9	3.8	380	Long
89	10/15/2014 12:00:00 AM	11/4/2014 12:00:00 AM	100	3.8	380	4.13	347.1	Short
90	11/4/2014 12:00:00 AM	12/10/2014 12:00:00 AM	100	4.13	412.9	3.71	370.6	Long
91	12/10/2014 12:00:00 AM	12/15/2014 12:00:00 AM	100	3.71	370.6	3.72	369.3	Short
92	12/15/2014 12:00:00 AM	12/16/2014 12:00:00 AM	100	3.72	371.9	3.62	361.9	Long

# 3

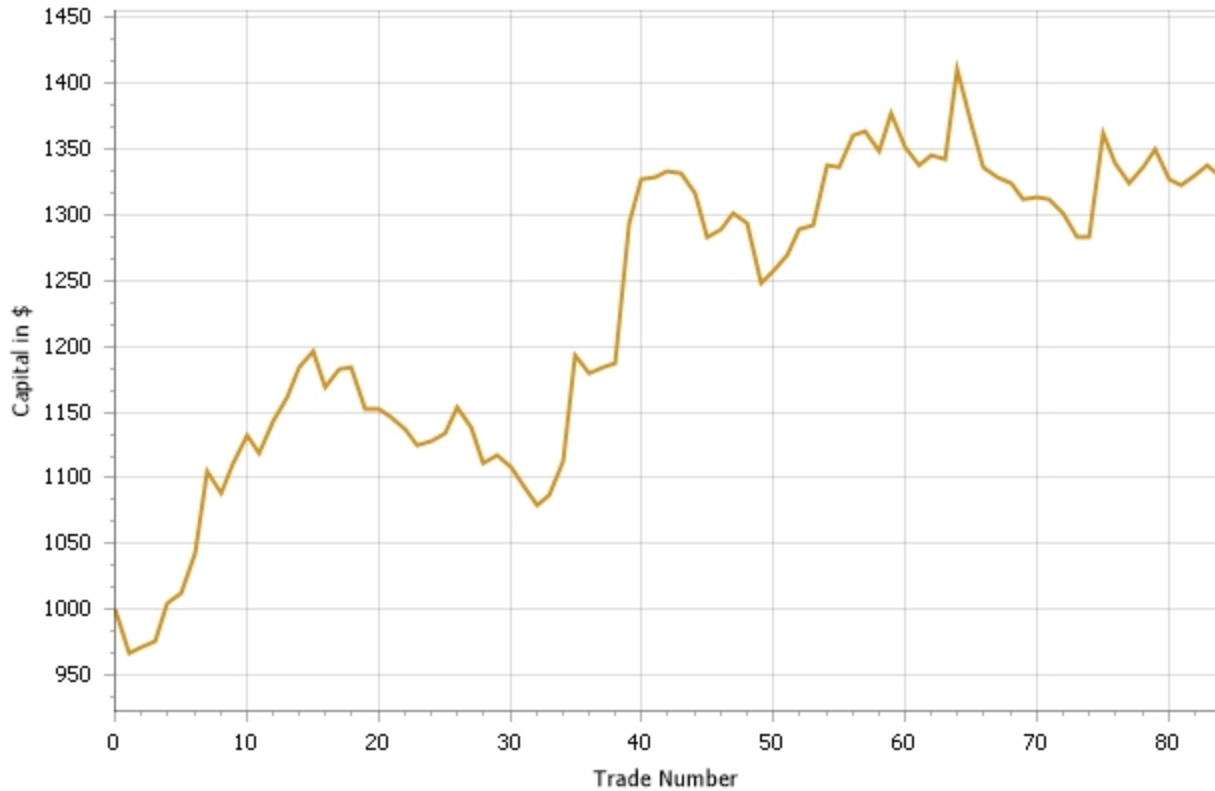
## Chaos Barometer

Settings, parameters, performance chart  
 Full list of trades with entry and exit price

Strategy Setting	Value
Calculation base period	<b>42</b>
Trade entry excess threshold	<b>0</b>
Show only prevailing trend	<b>True</b>
Show trading signals	<b>True</b>
Trading Parameter	Value
Entry Comission	<b>0</b>
Exit Comission	<b>0</b>
Trade Volume	<b>100</b>
Reinvest Capital	<b>False</b>



## Trading Performance Chart



Maximum Drawdown:	<b>-32.7</b>
Maximum Drawdown (Monte Carlo):	<b>-296.6</b>
Standard deviation:	<b>327.493596</b>
Annualized standard deviation:	<b>2449.30049651</b>
Downside deviation (MAR = 10%):	<b>13.19364927</b>
Value Added Monthly Index (VAMI):	<b>0</b>
Sharpe ratio (RFR = 5%):	<b>1.00261503</b>
Annualized Sharpe ratio (RFR = 5%):	<b>7.50728627</b>
Sortino ratio (MAR = 5%):	<b>0</b>
Annualized Sortino ratio (MAR = 5%):	<b>0</b>
Sterling ratio (MAR = 5%):	<b>0</b>
Calmar ratio:	<b>0</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **3** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



Performance Measure	Long Trades	Short Trades	All Trades
Total Trades	<b>42</b>	<b>42</b>	<b>84</b>
Winning Trades	<b>25</b>	<b>22</b>	<b>47</b>
Losing Trades	<b>17</b>	<b>20</b>	<b>37</b>
Breakeven Trades	<b>0</b>	<b>0</b>	<b>0</b>
Winning Trades %	<b>59.52 %</b>	<b>52.38 %</b>	<b>55.95 %</b>
Losing Trades %	<b>40.48 %</b>	<b>47.62 %</b>	<b>44.05 %</b>
Breakeven Trades %	<b>0.00 %</b>	<b>0.00 %</b>	<b>0.00 %</b>
Gross Profit	<b>427.40</b>	<b>509.90</b>	<b>937.30</b>
Gross Loss	<b>-281.50</b>	<b>-327.40</b>	<b>-608.90</b>
Net Profit	<b>427.40</b>	<b>509.90</b>	<b>937.30</b>
Net Loss	<b>-281.50</b>	<b>-327.40</b>	<b>-608.90</b>
Total Net Profit or Loss	<b>145.90</b>	<b>182.50</b>	<b>328.40</b>
Profit Factor	<b>1.52</b>	<b>1.56</b>	<b>1.54</b>
Average Trade Net Profit / Loss	<b>3.47</b>	<b>4.35</b>	<b>3.91</b>
Average Winning Trade	<b>17.10</b>	<b>23.18</b>	<b>19.94</b>
Largest Winning Trade	<b>68.10</b>	<b>106.40</b>	<b>106.40</b>
Most Consecutive Winning Trades	<b>1</b>	<b>1</b>	<b>6</b>
Average Bars in Winning Trades	<b>17.60</b>	<b>21.64</b>	<b>19.49</b>
Average Win / Average Loss	<b>1.03</b>	<b>1.42</b>	<b>1.21</b>
Average Losing Trade	<b>-16.56</b>	<b>-16.37</b>	<b>-16.46</b>
Largest Losing Trade	<b>-32.50</b>	<b>-45.50</b>	<b>-45.50</b>
Most Consecutive Losing Trades	<b>1</b>	<b>1</b>	<b>5</b>
Average Bars in Losing Trades	<b>7.18</b>	<b>7.05</b>	<b>7.11</b>
Maximum Shares/Contracts Held	<b>100</b>	<b>100</b>	<b>100</b>
% of Time in the Market	<b>47.00 %</b>	<b>52.00 %</b>	<b>100.00 %</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **3** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



## Profitability of Individual Trades

N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
1	4/15/2010 12:00:00 AM	5/14/2010 12:00:00 AM	100	3.98	398.5	4.31	365.8	Short
2	5/14/2010 12:00:00 AM	7/13/2010 12:00:00 AM	100	4.31	431.2	4.35	435.4	Long
3	7/13/2010 12:00:00 AM	7/14/2010 12:00:00 AM	100	4.35	435.4	4.31	440.2	Short
4	7/14/2010 12:00:00 AM	7/15/2010 12:00:00 AM	100	4.31	430.6	4.59	458.6	Long
5	7/15/2010 12:00:00 AM	7/19/2010 12:00:00 AM	100	4.59	458.6	4.51	466.2	Short
6	7/19/2010 12:00:00 AM	7/29/2010 12:00:00 AM	100	4.51	451	4.83	482.7	Long
7	7/29/2010 12:00:00 AM	11/9/2010 12:00:00 AM	100	4.83	482.7	4.21	544.4	Short
8	11/9/2010 12:00:00 AM	11/10/2010 12:00:00 AM	100	4.21	421	4.05	404.6	Long
9	11/10/2010 12:00:00 AM	11/16/2010 12:00:00 AM	100	4.05	404.6	3.82	427.4	Short
10	11/16/2010 12:00:00 AM	11/17/2010 12:00:00 AM	100	3.82	381.8	4.03	403	Long
11	11/17/2010 12:00:00 AM	11/19/2010 12:00:00 AM	100	4.03	403	4.16	389.6	Short
12	11/19/2010 12:00:00 AM	11/26/2010 12:00:00 AM	100	4.16	416.4	4.4	439.9	Long
13	11/26/2010 12:00:00 AM	11/29/2010 12:00:00 AM	100	4.4	439.9	4.21	458.8	Short
14	11/29/2010 12:00:00 AM	2/2/2011 12:00:00 AM	100	4.21	421	4.43	442.9	Long
15	2/2/2011 12:00:00 AM	2/4/2011 12:00:00 AM	100	4.43	442.9	4.31	454.8	Short
16	2/4/2011 12:00:00 AM	2/9/2011 12:00:00 AM	100	4.31	431	4.04	404.4	Long
17	2/9/2011 12:00:00 AM	2/11/2011 12:00:00 AM	100	4.04	404.4	3.91	417.8	Short
18	2/11/2011 12:00:00 AM	2/14/2011 12:00:00 AM	100	3.91	391	3.92	392.5	Long
19	2/14/2011 12:00:00 AM	3/29/2011 12:00:00 AM	100	3.92	392.5	4.24	361	Short
20	3/29/2011 12:00:00 AM	5/13/2011 12:00:00 AM	100	4.24	424	4.25	424.6	Long
21	5/13/2011 12:00:00 AM	5/16/2011 12:00:00 AM	100	4.25	424.6	4.32	417.4	Short
22	5/16/2011 12:00:00 AM	5/20/2011 12:00:00 AM	100	4.32	431.8	4.23	423	Long
23	5/20/2011 12:00:00 AM	5/23/2011 12:00:00 AM	100	4.23	423	4.35	411.4	Short
24	5/23/2011 12:00:00 AM	5/25/2011 12:00:00 AM	100	4.35	434.6	4.38	437.9	Long
25	5/25/2011 12:00:00 AM	5/26/2011 12:00:00 AM	100	4.38	437.9	4.33	443.2	Short
26	5/26/2011 12:00:00 AM	5/27/2011 12:00:00 AM	100	4.33	432.6	4.52	451.8	Long
27	5/27/2011 12:00:00 AM	5/31/2011 12:00:00 AM	100	4.52	451.8	4.67	437	Short
28	5/31/2011 12:00:00 AM	6/21/2011 12:00:00 AM	100	4.67	466.6	4.39	438.8	Long
29	6/21/2011 12:00:00 AM	6/22/2011 12:00:00 AM	100	4.39	438.8	4.32	445.9	Short
30	6/22/2011 12:00:00 AM	6/24/2011 12:00:00 AM	100	4.32	431.7	4.23	422.9	Long
31	6/24/2011 12:00:00 AM	6/30/2011 12:00:00 AM	100	4.23	422.9	4.37	408.4	Short
32	6/30/2011 12:00:00 AM	7/6/2011 12:00:00 AM	100	4.37	437.4	4.22	421.7	Long
33	7/6/2011 12:00:00 AM	7/7/2011 12:00:00 AM	100	4.22	421.7	4.13	430.1	Short
34	7/7/2011 12:00:00 AM	7/25/2011 12:00:00 AM	100	4.13	413.3	4.39	438.6	Long
35	7/25/2011 12:00:00 AM	12/2/2011 12:00:00 AM	100	4.39	438.6	3.58	518.8	Short
36	12/2/2011 12:00:00 AM	12/5/2011 12:00:00 AM	100	3.58	358.4	3.46	346.1	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **3** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
37	12/5/2011 12:00:00 AM	12/7/2011 12:00:00 AM	100	3.46	346.1	3.42	350.1	Short
38	12/7/2011 12:00:00 AM	12/8/2011 12:00:00 AM	100	3.42	342.1	3.46	345.7	Long
39	12/8/2011 12:00:00 AM	5/8/2012 12:00:00 AM	100	3.46	345.7	2.39	452.1	Short
40	5/8/2012 12:00:00 AM	8/16/2012 12:00:00 AM	100	2.39	239.3	2.72	272.4	Long
41	8/16/2012 12:00:00 AM	8/17/2012 12:00:00 AM	100	2.72	272.4	2.72	272.9	Short
42	8/17/2012 12:00:00 AM	8/20/2012 12:00:00 AM	100	2.72	271.9	2.78	277.6	Long
43	8/20/2012 12:00:00 AM	8/23/2012 12:00:00 AM	100	2.78	277.6	2.8	275	Short
44	8/23/2012 12:00:00 AM	8/27/2012 12:00:00 AM	100	2.8	280.2	2.65	265.3	Long
45	8/27/2012 12:00:00 AM	9/11/2012 12:00:00 AM	100	2.65	265.3	2.99	231.4	Short
46	9/11/2012 12:00:00 AM	9/12/2012 12:00:00 AM	100	2.99	299.2	3.06	306.3	Long
47	9/12/2012 12:00:00 AM	9/14/2012 12:00:00 AM	100	3.06	306.3	2.94	318.3	Short
48	9/14/2012 12:00:00 AM	9/17/2012 12:00:00 AM	100	2.94	294.3	2.87	286.5	Long
49	9/17/2012 12:00:00 AM	9/28/2012 12:00:00 AM	100	2.87	286.5	3.32	241	Short
50	9/28/2012 12:00:00 AM	12/11/2012 12:00:00 AM	100	3.32	332	3.41	341.2	Long
51	12/11/2012 12:00:00 AM	2/22/2013 12:00:00 AM	100	3.41	341.2	3.29	353.3	Short
52	2/22/2013 12:00:00 AM	2/28/2013 12:00:00 AM	100	3.29	329.1	3.49	348.6	Long
53	2/28/2013 12:00:00 AM	3/1/2013 12:00:00 AM	100	3.49	348.6	3.46	351.6	Short
54	3/1/2013 12:00:00 AM	5/10/2013 12:00:00 AM	100	3.46	345.6	3.91	391	Long
55	5/10/2013 12:00:00 AM	5/13/2013 12:00:00 AM	100	3.91	391	3.92	389.5	Short
56	5/13/2013 12:00:00 AM	5/28/2013 12:00:00 AM	100	3.92	392.5	4.17	417.4	Long
57	5/28/2013 12:00:00 AM	5/29/2013 12:00:00 AM	100	4.17	417.4	4.15	420	Short
58	5/29/2013 12:00:00 AM	6/4/2013 12:00:00 AM	100	4.15	414.8	4	399.8	Long
59	6/4/2013 12:00:00 AM	9/18/2013 12:00:00 AM	100	4	399.8	3.71	428.3	Short
60	9/18/2013 12:00:00 AM	11/5/2013 12:00:00 AM	100	3.71	371.3	3.47	346.6	Long
61	11/5/2013 12:00:00 AM	11/14/2013 12:00:00 AM	100	3.47	346.6	3.61	332.7	Short
62	11/14/2013 12:00:00 AM	11/20/2013 12:00:00 AM	100	3.61	360.5	3.67	367.4	Long
63	11/20/2013 12:00:00 AM	11/21/2013 12:00:00 AM	100	3.67	367.4	3.7	364.6	Short
64	11/21/2013 12:00:00 AM	3/13/2014 12:00:00 AM	100	3.7	370.2	4.38	438.3	Long
65	3/13/2014 12:00:00 AM	4/28/2014 12:00:00 AM	100	4.38	438.3	4.79	397.1	Short
66	4/28/2014 12:00:00 AM	5/19/2014 12:00:00 AM	100	4.79	479.5	4.47	447	Long
67	5/19/2014 12:00:00 AM	5/20/2014 12:00:00 AM	100	4.47	447	4.55	438.8	Short
68	5/20/2014 12:00:00 AM	5/27/2014 12:00:00 AM	100	4.55	455.2	4.5	450.5	Long
69	5/27/2014 12:00:00 AM	5/28/2014 12:00:00 AM	100	4.5	450.5	4.62	439.1	Short
70	5/28/2014 12:00:00 AM	6/3/2014 12:00:00 AM	100	4.62	461.9	4.63	462.9	Long
71	6/3/2014 12:00:00 AM	6/4/2014 12:00:00 AM	100	4.63	462.9	4.64	461.8	Short
72	6/4/2014 12:00:00 AM	6/10/2014 12:00:00 AM	100	4.64	464	4.53	453	Long
73	6/10/2014 12:00:00 AM	6/16/2014 12:00:00 AM	100	4.53	453	4.71	435.3	Short
74	6/16/2014 12:00:00 AM	6/17/2014 12:00:00 AM	100	4.71	470.7	4.71	470.9	Long

**Backtest Report for Historical Performance of the Trading Strategy**

**NG1**

Set: **3** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
75	6/17/2014 12:00:00 AM	9/15/2014 12:00:00 AM	100	4.71	470.9	3.93	548.7	Short
76	9/15/2014 12:00:00 AM	10/21/2014 12:00:00 AM	100	3.93	393.1	3.71	371.1	Long
77	10/21/2014 12:00:00 AM	10/31/2014 12:00:00 AM	100	3.71	371.1	3.87	354.9	Short
78	10/31/2014 12:00:00 AM	12/1/2014 12:00:00 AM	100	3.87	387.3	4.01	400.7	Long
79	12/1/2014 12:00:00 AM	12/2/2014 12:00:00 AM	100	4.01	400.7	3.87	414	Short
80	12/2/2014 12:00:00 AM	12/4/2014 12:00:00 AM	100	3.87	387.4	3.65	364.9	Long
81	12/4/2014 12:00:00 AM	12/10/2014 12:00:00 AM	100	3.65	364.9	3.71	359.2	Short
82	12/10/2014 12:00:00 AM	12/12/2014 12:00:00 AM	100	3.71	370.6	3.79	379.5	Long
83	12/12/2014 12:00:00 AM	12/15/2014 12:00:00 AM	100	3.79	379.5	3.72	387.1	Short
84	12/15/2014 12:00:00 AM	12/16/2014 12:00:00 AM	100	3.72	371.9	3.62	361.9	Long

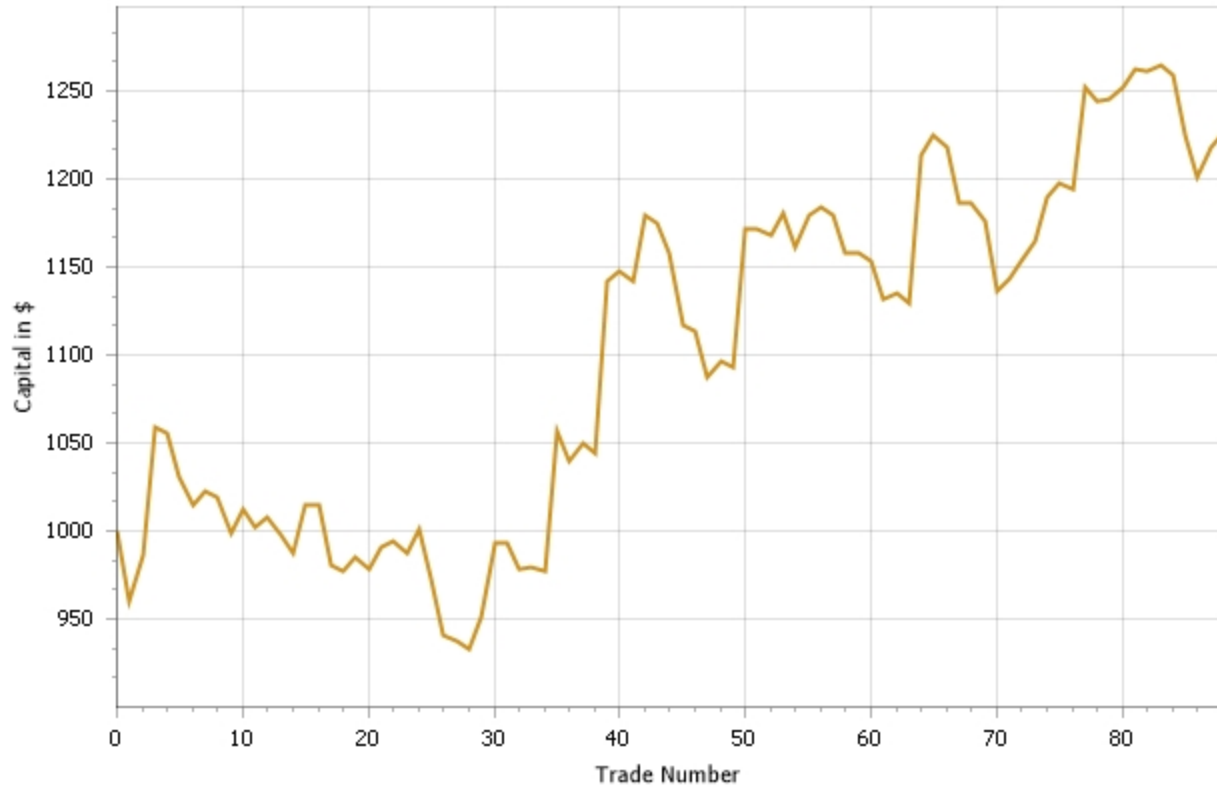
# 4

## Chaos Barometer

Settings, parameters, performance chart  
Full list of trades with entry and exit price

Strategy Setting	Value
Calculation base period	<b>44</b>
Trade entry excess threshold	<b>0</b>
Show only prevailing trend	<b>True</b>
Show trading signals	<b>True</b>
Trading Parameter	Value
Entry Comission	<b>0</b>
Exit Comission	<b>0</b>
Trade Volume	<b>100</b>
Reinvest Capital	<b>False</b>

## Trading Performance Chart



Maximum Drawdown:	<b>-66.7</b>
Maximum Drawdown (Monte Carlo):	<b>-364.4</b>
Standard deviation:	<b>226.74555566</b>
Annualized standard deviation:	<b>1697.25782302</b>
Downside deviation (MAR = 10%):	<b>13.3440913</b>
Value Added Monthly Index (VAMI):	<b>0</b>
Sharpe ratio (RFR = 5%):	<b>0.99869653</b>
Annualized Sharpe ratio (RFR = 5%):	<b>7.47158141</b>
Sortino ratio (MAR = 5%):	<b>0</b>
Annualized Sortino ratio (MAR = 5%):	<b>2.80331352</b>
Sterling ratio (MAR = 5%):	<b>0</b>
Calmar ratio:	<b>0</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **4** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



Performance Measure	Long Trades	Short Trades	All Trades
Total Trades	<b>44</b>	<b>44</b>	<b>88</b>
Winning Trades	<b>18</b>	<b>22</b>	<b>40</b>
Losing Trades	<b>26</b>	<b>21</b>	<b>47</b>
Breakeven Trades	<b>0</b>	<b>1</b>	<b>1</b>
Winning Trades %	<b>40.91 %</b>	<b>50.00 %</b>	<b>45.45 %</b>
Losing Trades %	<b>59.09 %</b>	<b>47.73 %</b>	<b>53.41 %</b>
Breakeven Trades %	<b>0.00 %</b>	<b>2.27 %</b>	<b>1.14 %</b>
Gross Profit	<b>378.00</b>	<b>491.70</b>	<b>869.70</b>
Gross Loss	<b>-276.00</b>	<b>-367.20</b>	<b>-643.20</b>
Net Profit	<b>378.00</b>	<b>491.70</b>	<b>869.70</b>
Net Loss	<b>-276.00</b>	<b>-367.20</b>	<b>-643.20</b>
Total Net Profit or Loss	<b>102.00</b>	<b>124.50</b>	<b>226.50</b>
Profit Factor	<b>1.37</b>	<b>1.34</b>	<b>1.35</b>
Average Trade Net Profit / Loss	<b>2.32</b>	<b>2.83</b>	<b>2.57</b>
Average Winning Trade	<b>21.00</b>	<b>22.35</b>	<b>21.74</b>
Largest Winning Trade	<b>84.10</b>	<b>97.50</b>	<b>97.50</b>
Most Consecutive Winning Trades	<b>1</b>	<b>1</b>	<b>5</b>
Average Bars in Winning Trades	<b>22.56</b>	<b>19.09</b>	<b>20.65</b>
Average Win / Average Loss	<b>1.98</b>	<b>1.28</b>	<b>1.59</b>
Average Losing Trade	<b>-10.62</b>	<b>-17.49</b>	<b>-13.69</b>
Largest Losing Trade	<b>-39.70</b>	<b>-41.00</b>	<b>-41.00</b>
Most Consecutive Losing Trades	<b>1</b>	<b>1</b>	<b>5</b>
Average Bars in Losing Trades	<b>5.85</b>	<b>9.38</b>	<b>7.43</b>
Maximum Shares/Contracts Held	<b>100</b>	<b>100</b>	<b>100</b>
% of Time in the Market	<b>47.00 %</b>	<b>52.00 %</b>	<b>99.00 %</b>



Backtest Report for Historical Performance of the Trading Strategy

NG1

Set: 4 Strategy: Chaos Barometer

D1 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



Profitability of Individual Trades

N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
1	4/19/2010 12:00:00 AM	5/13/2010 12:00:00 AM	100	3.94	394.4	4.34	354.9	Short
2	5/13/2010 12:00:00 AM	8/5/2010 12:00:00 AM	100	4.34	433.9	4.6	459.8	Long
3	8/5/2010 12:00:00 AM	11/2/2010 12:00:00 AM	100	4.6	459.8	3.87	532.6	Short
4	11/2/2010 12:00:00 AM	11/3/2010 12:00:00 AM	100	3.87	387	3.84	383.6	Long
5	11/3/2010 12:00:00 AM	11/8/2010 12:00:00 AM	100	3.84	383.6	4.09	358.4	Short
6	11/8/2010 12:00:00 AM	11/11/2010 12:00:00 AM	100	4.09	408.8	3.93	392.7	Long
7	11/11/2010 12:00:00 AM	11/15/2010 12:00:00 AM	100	3.93	392.7	3.85	400.9	Short
8	11/15/2010 12:00:00 AM	11/16/2010 12:00:00 AM	100	3.85	384.5	3.82	381.8	Long
9	11/16/2010 12:00:00 AM	11/17/2010 12:00:00 AM	100	3.82	381.8	4.03	360.6	Short
10	11/17/2010 12:00:00 AM	11/19/2010 12:00:00 AM	100	4.03	403	4.16	416.4	Long
11	11/19/2010 12:00:00 AM	11/23/2010 12:00:00 AM	100	4.16	416.4	4.26	406.4	Short
12	11/23/2010 12:00:00 AM	1/28/2011 12:00:00 AM	100	4.26	426.4	4.32	432.3	Long
13	1/28/2011 12:00:00 AM	1/31/2011 12:00:00 AM	100	4.32	432.3	4.42	422.6	Short
14	1/31/2011 12:00:00 AM	2/4/2011 12:00:00 AM	100	4.42	442	4.31	431	Long
15	2/4/2011 12:00:00 AM	2/8/2011 12:00:00 AM	100	4.31	431	4.04	458	Short
16	2/8/2011 12:00:00 AM	2/9/2011 12:00:00 AM	100	4.04	404	4.04	404.4	Long
17	2/9/2011 12:00:00 AM	3/31/2011 12:00:00 AM	100	4.04	404.4	4.39	369.9	Short
18	3/31/2011 12:00:00 AM	4/1/2011 12:00:00 AM	100	4.39	438.9	4.36	436.2	Long
19	4/1/2011 12:00:00 AM	4/4/2011 12:00:00 AM	100	4.36	436.2	4.29	443.5	Short
20	4/4/2011 12:00:00 AM	4/5/2011 12:00:00 AM	100	4.29	428.9	4.23	423.1	Long
21	4/5/2011 12:00:00 AM	4/11/2011 12:00:00 AM	100	4.23	423.1	4.11	435.4	Short
22	4/11/2011 12:00:00 AM	4/13/2011 12:00:00 AM	100	4.11	410.8	4.14	414.1	Long
23	4/13/2011 12:00:00 AM	4/14/2011 12:00:00 AM	100	4.14	414.1	4.21	407	Short
24	4/14/2011 12:00:00 AM	5/23/2011 12:00:00 AM	100	4.21	421.2	4.35	434.6	Long
25	5/23/2011 12:00:00 AM	6/1/2011 12:00:00 AM	100	4.35	434.6	4.63	406.3	Short
26	6/1/2011 12:00:00 AM	6/22/2011 12:00:00 AM	100	4.63	462.9	4.32	431.7	Long
27	6/22/2011 12:00:00 AM	6/28/2011 12:00:00 AM	100	4.32	431.7	4.36	427.7	Short
28	6/28/2011 12:00:00 AM	6/29/2011 12:00:00 AM	100	4.36	435.7	4.32	431.5	Long
29	6/29/2011 12:00:00 AM	7/7/2011 12:00:00 AM	100	4.32	431.5	4.13	449.7	Short
30	7/7/2011 12:00:00 AM	7/15/2011 12:00:00 AM	100	4.13	413.3	4.55	454.6	Long
31	7/15/2011 12:00:00 AM	7/18/2011 12:00:00 AM	100	4.55	454.6	4.55	454.6	Short
32	7/18/2011 12:00:00 AM	7/22/2011 12:00:00 AM	100	4.55	454.6	4.4	439.9	Long
33	7/22/2011 12:00:00 AM	7/25/2011 12:00:00 AM	100	4.4	439.9	4.39	441.2	Short
34	7/25/2011 12:00:00 AM	7/27/2011 12:00:00 AM	100	4.39	438.6	4.37	437	Long
35	7/27/2011 12:00:00 AM	12/2/2011 12:00:00 AM	100	4.37	437	3.58	515.6	Short
36	12/2/2011 12:00:00 AM	12/7/2011 12:00:00 AM	100	3.58	358.4	3.42	342.1	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **4** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
37	12/7/2011 12:00:00 AM	12/9/2011 12:00:00 AM	100	3.42	342.1	3.32	352.5	Short
38	12/9/2011 12:00:00 AM	12/12/2011 12:00:00 AM	100	3.32	331.7	3.25	325.4	Long
39	12/12/2011 12:00:00 AM	5/4/2012 12:00:00 AM	100	3.25	325.4	2.28	422.9	Short
40	5/4/2012 12:00:00 AM	5/7/2012 12:00:00 AM	100	2.28	227.9	2.34	233.6	Long
41	5/7/2012 12:00:00 AM	5/8/2012 12:00:00 AM	100	2.34	233.6	2.39	227.9	Short
42	5/8/2012 12:00:00 AM	8/20/2012 12:00:00 AM	100	2.39	239.3	2.78	277.6	Long
43	8/20/2012 12:00:00 AM	8/22/2012 12:00:00 AM	100	2.78	277.6	2.83	272.6	Short
44	8/22/2012 12:00:00 AM	8/27/2012 12:00:00 AM	100	2.83	282.6	2.65	265.3	Long
45	8/27/2012 12:00:00 AM	9/12/2012 12:00:00 AM	100	2.65	265.3	3.06	224.3	Short
46	9/12/2012 12:00:00 AM	9/13/2012 12:00:00 AM	100	3.06	306.3	3.04	303.7	Long
47	9/13/2012 12:00:00 AM	9/27/2012 12:00:00 AM	100	3.04	303.7	3.3	277.7	Short
48	9/27/2012 12:00:00 AM	12/12/2012 12:00:00 AM	100	3.3	329.7	3.38	338.2	Long
49	12/12/2012 12:00:00 AM	2/25/2013 12:00:00 AM	100	3.38	338.2	3.41	335	Short
50	2/25/2013 12:00:00 AM	5/21/2013 12:00:00 AM	100	3.41	341.4	4.19	419.2	Long
51	5/21/2013 12:00:00 AM	5/22/2013 12:00:00 AM	100	4.19	419.2	4.19	419.8	Short
52	5/22/2013 12:00:00 AM	5/29/2013 12:00:00 AM	100	4.19	418.6	4.15	414.8	Long
53	5/29/2013 12:00:00 AM	5/30/2013 12:00:00 AM	100	4.15	414.8	4.02	427.3	Short
54	5/30/2013 12:00:00 AM	6/6/2013 12:00:00 AM	100	4.02	402.3	3.83	382.7	Long
55	6/6/2013 12:00:00 AM	9/12/2013 12:00:00 AM	100	3.83	382.7	3.64	401.6	Short
56	9/12/2013 12:00:00 AM	9/13/2013 12:00:00 AM	100	3.64	363.8	3.68	367.7	Long
57	9/13/2013 12:00:00 AM	9/18/2013 12:00:00 AM	100	3.68	367.7	3.71	364.1	Short
58	9/18/2013 12:00:00 AM	9/24/2013 12:00:00 AM	100	3.71	371.3	3.49	349.2	Long
59	9/24/2013 12:00:00 AM	9/25/2013 12:00:00 AM	100	3.49	349.2	3.49	349.1	Short
60	9/25/2013 12:00:00 AM	11/4/2013 12:00:00 AM	100	3.49	349.3	3.44	344.5	Long
61	11/4/2013 12:00:00 AM	11/15/2013 12:00:00 AM	100	3.44	344.5	3.66	323	Short
62	11/15/2013 12:00:00 AM	11/21/2013 12:00:00 AM	100	3.66	366	3.7	370.2	Long
63	11/21/2013 12:00:00 AM	11/22/2013 12:00:00 AM	100	3.7	370.2	3.77	363.6	Short
64	11/22/2013 12:00:00 AM	2/28/2014 12:00:00 AM	100	3.77	376.8	4.61	460.9	Long
65	2/28/2014 12:00:00 AM	3/3/2014 12:00:00 AM	100	4.61	460.9	4.49	472.6	Short
66	3/3/2014 12:00:00 AM	3/14/2014 12:00:00 AM	100	4.49	449.2	4.42	442.5	Long
67	3/14/2014 12:00:00 AM	4/22/2014 12:00:00 AM	100	4.42	442.5	4.74	411.1	Short
68	4/22/2014 12:00:00 AM	4/23/2014 12:00:00 AM	100	4.74	473.9	4.73	473	Long
69	4/23/2014 12:00:00 AM	4/29/2014 12:00:00 AM	100	4.73	473	4.83	462.9	Short
70	4/29/2014 12:00:00 AM	5/12/2014 12:00:00 AM	100	4.83	483.1	4.43	443.4	Long
71	5/12/2014 12:00:00 AM	5/14/2014 12:00:00 AM	100	4.43	443.4	4.37	450.1	Short
72	5/14/2014 12:00:00 AM	5/19/2014 12:00:00 AM	100	4.37	436.7	4.47	447	Long
73	5/19/2014 12:00:00 AM	5/22/2014 12:00:00 AM	100	4.47	447	4.36	458.1	Short
74	5/22/2014 12:00:00 AM	5/28/2014 12:00:00 AM	100	4.36	435.9	4.62	461.9	Long

**Backtest Report for Historical Performance of the Trading Strategy**

**NG1**

Set: **4** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
75	5/28/2014 12:00:00 AM	5/30/2014 12:00:00 AM	100	4.62	461.9	4.54	469.6	Short
76	5/30/2014 12:00:00 AM	6/11/2014 12:00:00 AM	100	4.54	454.2	4.51	450.8	Long
77	6/11/2014 12:00:00 AM	9/15/2014 12:00:00 AM	100	4.51	450.8	3.93	508.5	Short
78	9/15/2014 12:00:00 AM	10/8/2014 12:00:00 AM	100	3.93	393.1	3.86	385.5	Long
79	10/8/2014 12:00:00 AM	10/9/2014 12:00:00 AM	100	3.86	385.5	3.85	386.5	Short
80	10/9/2014 12:00:00 AM	10/13/2014 12:00:00 AM	100	3.85	384.5	3.92	391.6	Long
81	10/13/2014 12:00:00 AM	10/14/2014 12:00:00 AM	100	3.92	391.6	3.82	401.6	Short
82	10/14/2014 12:00:00 AM	10/15/2014 12:00:00 AM	100	3.82	381.6	3.8	380	Long
83	10/15/2014 12:00:00 AM	10/17/2014 12:00:00 AM	100	3.8	380	3.77	383.4	Short
84	10/17/2014 12:00:00 AM	10/21/2014 12:00:00 AM	100	3.77	376.6	3.71	371.1	Long
85	10/21/2014 12:00:00 AM	11/3/2014 12:00:00 AM	100	3.71	371.1	4.05	337.6	Short
86	11/3/2014 12:00:00 AM	12/5/2014 12:00:00 AM	100	4.05	404.6	3.8	380.2	Long
87	12/5/2014 12:00:00 AM	12/11/2014 12:00:00 AM	100	3.8	380.2	3.63	397	Short
88	12/11/2014 12:00:00 AM	12/15/2014 12:00:00 AM	100	3.63	363.4	3.72	371.9	Long

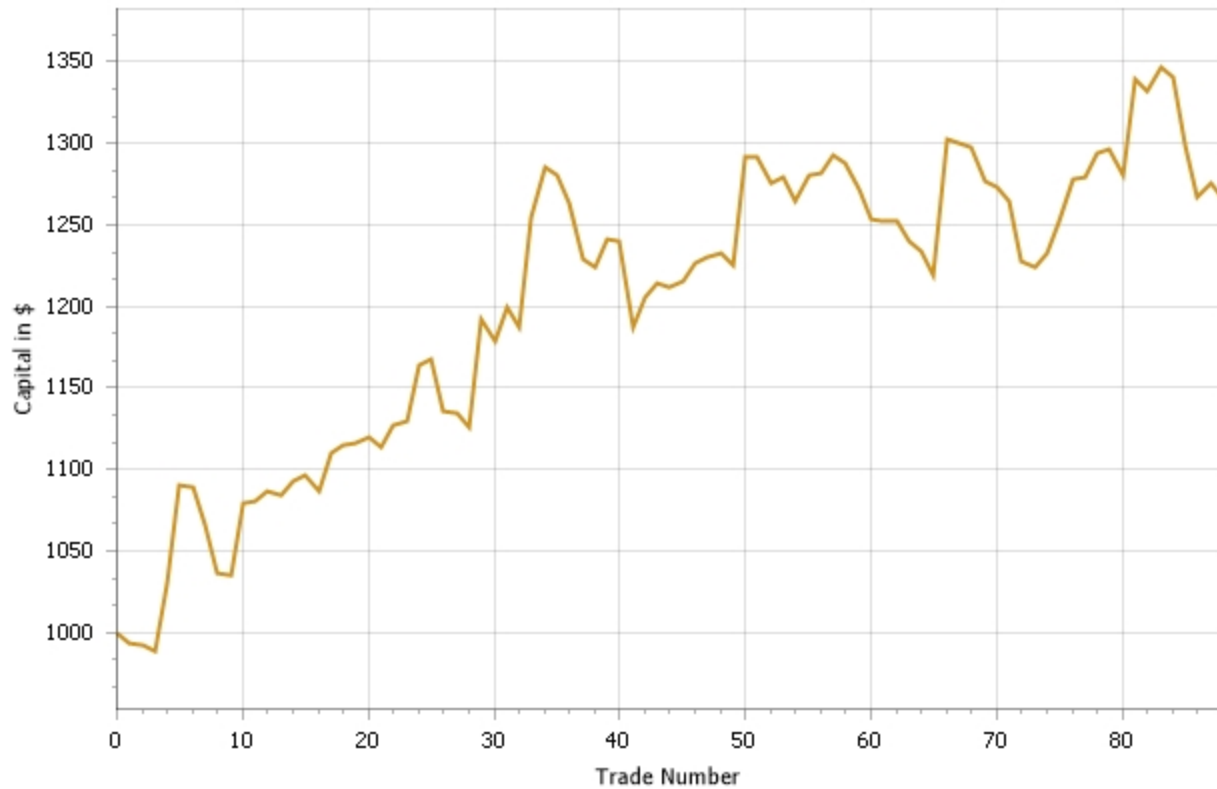
# 5

## Chaos Barometer

Settings, parameters, performance chart  
 Full list of trades with entry and exit price

Strategy Setting	Value
Calculation base period	<b>45</b>
Trade entry excess threshold	<b>0</b>
Show only prevailing trend	<b>True</b>
Show trading signals	<b>True</b>
Trading Parameter	Value
Entry Comission	<b>0</b>
Exit Comission	<b>0</b>
Trade Volume	<b>100</b>
Reinvest Capital	<b>False</b>

## Trading Performance Chart



Maximum Drawdown:	<b>-11.2</b>
Maximum Drawdown (Monte Carlo):	<b>-298.9</b>
Standard deviation:	<b>265.1847311</b>
Annualized standard deviation:	<b>1979.26299304</b>
Downside deviation (MAR = 10%):	<b>12.6601648</b>
Value Added Monthly Index (VAMI):	<b>0</b>
Sharpe ratio (RFR = 5%):	<b>1.00137741</b>
Annualized Sharpe ratio (RFR = 5%):	<b>7.51330169</b>
Sortino ratio (MAR = 5%):	<b>0.52459176</b>
Annualized Sortino ratio (MAR = 5%):	<b>2.9293712</b>
Sterling ratio (MAR = 5%):	<b>0.53250673</b>
Calmar ratio:	<b>0</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **5** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



Performance Measure	Long Trades	Short Trades	All Trades
Total Trades	<b>44</b>	<b>44</b>	<b>88</b>
Winning Trades	<b>18</b>	<b>24</b>	<b>42</b>
Losing Trades	<b>26</b>	<b>20</b>	<b>46</b>
Breakeven Trades	<b>0</b>	<b>0</b>	<b>0</b>
Winning Trades %	<b>40.91 %</b>	<b>54.55 %</b>	<b>47.73 %</b>
Losing Trades %	<b>59.09 %</b>	<b>45.45 %</b>	<b>52.27 %</b>
Breakeven Trades %	<b>0.00 %</b>	<b>0.00 %</b>	<b>0.00 %</b>
Gross Profit	<b>422.30</b>	<b>415.70</b>	<b>838.00</b>
Gross Loss	<b>-307.30</b>	<b>-265.10</b>	<b>-572.40</b>
Net Profit	<b>422.30</b>	<b>415.70</b>	<b>838.00</b>
Net Loss	<b>-307.30</b>	<b>-265.10</b>	<b>-572.40</b>
Total Net Profit or Loss	<b>115.00</b>	<b>150.60</b>	<b>265.60</b>
Profit Factor	<b>1.37</b>	<b>1.57</b>	<b>1.46</b>
Average Trade Net Profit / Loss	<b>2.61</b>	<b>3.42</b>	<b>3.02</b>
Average Winning Trade	<b>23.46</b>	<b>17.32</b>	<b>19.95</b>
Largest Winning Trade	<b>83.40</b>	<b>67.10</b>	<b>83.40</b>
Most Consecutive Winning Trades	<b>1</b>	<b>1</b>	<b>6</b>
Average Bars in Winning Trades	<b>19.67</b>	<b>20.67</b>	<b>20.24</b>
Average Win / Average Loss	<b>1.98</b>	<b>1.31</b>	<b>1.60</b>
Average Losing Trade	<b>-11.82</b>	<b>-13.25</b>	<b>-12.44</b>
Largest Losing Trade	<b>-36.10</b>	<b>-53.50</b>	<b>-53.50</b>
Most Consecutive Losing Trades	<b>1</b>	<b>1</b>	<b>8</b>
Average Bars in Losing Trades	<b>7.50</b>	<b>6.55</b>	<b>7.09</b>
Maximum Shares/Contracts Held	<b>100</b>	<b>100</b>	<b>100</b>
% of Time in the Market	<b>46.00 %</b>	<b>53.00 %</b>	<b>100.00 %</b>

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **5** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



## Profitability of Individual Trades

N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
3	5/24/2010 12:00:00 AM	5/25/2010 12:00:00 AM	100	4.02	401.7	4.05	398.3	Short
4	5/25/2010 12:00:00 AM	8/6/2010 12:00:00 AM	100	4.05	405.1	4.47	446.7	Long
5	8/6/2010 12:00:00 AM	11/2/2010 12:00:00 AM	100	4.47	446.7	3.87	506.4	Short
6	11/2/2010 12:00:00 AM	11/4/2010 12:00:00 AM	100	3.87	387	3.86	385.6	Long
7	11/4/2010 12:00:00 AM	11/8/2010 12:00:00 AM	100	3.86	385.6	4.09	362.4	Short
8	11/8/2010 12:00:00 AM	11/12/2010 12:00:00 AM	100	4.09	408.8	3.8	379.9	Long
9	11/12/2010 12:00:00 AM	11/16/2010 12:00:00 AM	100	3.8	379.9	3.82	378	Short
10	11/16/2010 12:00:00 AM	11/22/2010 12:00:00 AM	100	3.82	381.8	4.27	427.1	Long
11	11/22/2010 12:00:00 AM	11/23/2010 12:00:00 AM	100	4.27	427.1	4.26	427.8	Short
12	11/23/2010 12:00:00 AM	1/28/2011 12:00:00 AM	100	4.26	426.4	4.32	432.3	Long
13	1/28/2011 12:00:00 AM	2/1/2011 12:00:00 AM	100	4.32	432.3	4.35	429.9	Short
14	2/1/2011 12:00:00 AM	2/2/2011 12:00:00 AM	100	4.35	434.7	4.43	442.9	Long
15	2/2/2011 12:00:00 AM	3/31/2011 12:00:00 AM	100	4.43	442.9	4.39	446.9	Short
16	3/31/2011 12:00:00 AM	4/4/2011 12:00:00 AM	100	4.39	438.9	4.29	428.9	Long
17	4/4/2011 12:00:00 AM	4/7/2011 12:00:00 AM	100	4.29	428.9	4.06	452.1	Short
18	4/7/2011 12:00:00 AM	4/11/2011 12:00:00 AM	100	4.06	405.7	4.11	410.8	Long
19	4/11/2011 12:00:00 AM	4/12/2011 12:00:00 AM	100	4.11	410.8	4.1	411.8	Short
20	4/12/2011 12:00:00 AM	4/13/2011 12:00:00 AM	100	4.1	409.8	4.14	414.1	Long
21	4/13/2011 12:00:00 AM	4/15/2011 12:00:00 AM	100	4.14	414.1	4.2	407.8	Short
22	4/15/2011 12:00:00 AM	5/24/2011 12:00:00 AM	100	4.2	420.4	4.34	434.5	Long
23	5/24/2011 12:00:00 AM	5/26/2011 12:00:00 AM	100	4.34	434.5	4.33	436.4	Short
24	5/26/2011 12:00:00 AM	5/31/2011 12:00:00 AM	100	4.33	432.6	4.67	466.6	Long
25	5/31/2011 12:00:00 AM	6/1/2011 12:00:00 AM	100	4.67	466.6	4.63	470.3	Short
26	6/1/2011 12:00:00 AM	6/22/2011 12:00:00 AM	100	4.63	462.9	4.32	431.7	Long
27	6/22/2011 12:00:00 AM	7/12/2011 12:00:00 AM	100	4.32	431.7	4.33	430.1	Short
28	7/12/2011 12:00:00 AM	7/28/2011 12:00:00 AM	100	4.33	433.3	4.24	424.4	Long
29	7/28/2011 12:00:00 AM	12/2/2011 12:00:00 AM	100	4.24	424.4	3.58	490.4	Short
30	12/2/2011 12:00:00 AM	12/8/2011 12:00:00 AM	100	3.58	358.4	3.46	345.7	Long
31	12/8/2011 12:00:00 AM	12/12/2011 12:00:00 AM	100	3.46	345.7	3.25	366	Short
32	12/12/2011 12:00:00 AM	12/14/2011 12:00:00 AM	100	3.25	325.4	3.14	313.6	Long
33	12/14/2011 12:00:00 AM	5/9/2012 12:00:00 AM	100	3.14	313.6	2.46	380.7	Short
34	5/9/2012 12:00:00 AM	8/20/2012 12:00:00 AM	100	2.46	246.5	2.78	277.6	Long
35	8/20/2012 12:00:00 AM	8/22/2012 12:00:00 AM	100	2.78	277.6	2.83	272.6	Short
36	8/22/2012 12:00:00 AM	8/27/2012 12:00:00 AM	100	2.83	282.6	2.65	265.3	Long
37	8/27/2012 12:00:00 AM	9/11/2012 12:00:00 AM	100	2.65	265.3	2.99	231.4	Short
38	9/11/2012 12:00:00 AM	9/14/2012 12:00:00 AM	100	2.99	299.2	2.94	294.3	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **5** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
39	9/14/2012 12:00:00 AM	9/18/2012 12:00:00 AM	100	2.94	294.3	2.77	311.3	Short
40	9/18/2012 12:00:00 AM	9/19/2012 12:00:00 AM	100	2.77	277.3	2.76	276.2	Long
41	9/19/2012 12:00:00 AM	9/27/2012 12:00:00 AM	100	2.76	276.2	3.3	222.7	Short
42	9/27/2012 12:00:00 AM	10/1/2012 12:00:00 AM	100	3.3	329.7	3.48	348	Long
43	10/1/2012 12:00:00 AM	10/3/2012 12:00:00 AM	100	3.48	348	3.4	356.5	Short
44	10/3/2012 12:00:00 AM	12/12/2012 12:00:00 AM	100	3.4	339.5	3.38	338.2	Long
45	12/12/2012 12:00:00 AM	12/27/2012 12:00:00 AM	100	3.38	338.2	3.35	341	Short
46	12/27/2012 12:00:00 AM	12/28/2012 12:00:00 AM	100	3.35	335.4	3.47	346.9	Long
47	12/28/2012 12:00:00 AM	2/27/2013 12:00:00 AM	100	3.47	346.9	3.43	350.4	Short
48	2/27/2013 12:00:00 AM	3/1/2013 12:00:00 AM	100	3.43	343.4	3.46	345.6	Long
49	3/1/2013 12:00:00 AM	3/5/2013 12:00:00 AM	100	3.46	345.6	3.53	338.3	Short
50	3/5/2013 12:00:00 AM	5/21/2013 12:00:00 AM	100	3.53	352.9	4.19	419.2	Long
51	5/21/2013 12:00:00 AM	5/22/2013 12:00:00 AM	100	4.19	419.2	4.19	419.8	Short
52	5/22/2013 12:00:00 AM	5/30/2013 12:00:00 AM	100	4.19	418.6	4.02	402.3	Long
53	5/30/2013 12:00:00 AM	5/31/2013 12:00:00 AM	100	4.02	402.3	3.98	406.2	Short
54	5/31/2013 12:00:00 AM	6/7/2013 12:00:00 AM	100	3.98	398.4	3.83	382.8	Long
55	6/7/2013 12:00:00 AM	9/3/2013 12:00:00 AM	100	3.83	382.8	3.67	399	Short
56	9/3/2013 12:00:00 AM	9/4/2013 12:00:00 AM	100	3.67	366.6	3.68	368.3	Long
57	9/4/2013 12:00:00 AM	9/5/2013 12:00:00 AM	100	3.68	368.3	3.58	379.1	Short
58	9/5/2013 12:00:00 AM	9/6/2013 12:00:00 AM	100	3.58	357.5	3.53	353	Long
59	9/6/2013 12:00:00 AM	9/20/2013 12:00:00 AM	100	3.53	353	3.69	337.3	Short
60	9/20/2013 12:00:00 AM	9/24/2013 12:00:00 AM	100	3.69	368.7	3.49	349.2	Long
61	9/24/2013 12:00:00 AM	9/26/2013 12:00:00 AM	100	3.49	349.2	3.5	348.6	Short
62	9/26/2013 12:00:00 AM	10/29/2013 12:00:00 AM	100	3.5	349.8	3.5	349.6	Long
63	10/29/2013 12:00:00 AM	11/18/2013 12:00:00 AM	100	3.5	349.6	3.62	337.5	Short
64	11/18/2013 12:00:00 AM	11/19/2013 12:00:00 AM	100	3.62	361.7	3.56	355.6	Long
65	11/19/2013 12:00:00 AM	11/21/2013 12:00:00 AM	100	3.56	355.6	3.7	341	Short
66	11/21/2013 12:00:00 AM	3/17/2014 12:00:00 AM	100	3.7	370.2	4.54	453.6	Long
67	3/17/2014 12:00:00 AM	4/14/2014 12:00:00 AM	100	4.54	453.6	4.56	451.2	Short
68	4/14/2014 12:00:00 AM	4/16/2014 12:00:00 AM	100	4.56	456	4.53	453	Long
69	4/16/2014 12:00:00 AM	4/22/2014 12:00:00 AM	100	4.53	453	4.74	432.1	Short
70	4/22/2014 12:00:00 AM	4/24/2014 12:00:00 AM	100	4.74	473.9	4.71	470.5	Long
71	4/24/2014 12:00:00 AM	4/28/2014 12:00:00 AM	100	4.71	470.5	4.79	461.5	Short
72	4/28/2014 12:00:00 AM	5/12/2014 12:00:00 AM	100	4.79	479.5	4.43	443.4	Long
73	5/12/2014 12:00:00 AM	5/15/2014 12:00:00 AM	100	4.43	443.4	4.47	439.9	Short
74	5/15/2014 12:00:00 AM	5/20/2014 12:00:00 AM	100	4.47	446.9	4.55	455.2	Long
75	5/20/2014 12:00:00 AM	5/22/2014 12:00:00 AM	100	4.55	455.2	4.36	474.5	Short
76	5/22/2014 12:00:00 AM	5/28/2014 12:00:00 AM	100	4.36	435.9	4.62	461.9	Long



## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **5** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



N	Entry date/time	Exit date/time	Quantity	Entry price	Entry cap.	Exit price	Exit cap.	Trade
77	5/28/2014 12:00:00 AM	6/2/2014 12:00:00 AM	100	4.62	461.9	4.61	462.6	Short
78	6/2/2014 12:00:00 AM	6/12/2014 12:00:00 AM	100	4.61	461.2	4.76	476.2	Long
79	6/12/2014 12:00:00 AM	6/13/2014 12:00:00 AM	100	4.76	476.2	4.74	478.5	Short
80	6/13/2014 12:00:00 AM	6/19/2014 12:00:00 AM	100	4.74	473.9	4.58	458.4	Long
81	6/19/2014 12:00:00 AM	9/16/2014 12:00:00 AM	100	4.58	458.4	4	517.3	Short
82	9/16/2014 12:00:00 AM	10/13/2014 12:00:00 AM	100	4	399.5	3.92	391.6	Long
83	10/13/2014 12:00:00 AM	10/17/2014 12:00:00 AM	100	3.92	391.6	3.77	406.6	Short
84	10/17/2014 12:00:00 AM	10/21/2014 12:00:00 AM	100	3.77	376.6	3.71	371.1	Long
85	10/21/2014 12:00:00 AM	11/4/2014 12:00:00 AM	100	3.71	371.1	4.13	329.3	Short
86	11/4/2014 12:00:00 AM	12/3/2014 12:00:00 AM	100	4.13	412.9	3.81	380.5	Long
87	12/3/2014 12:00:00 AM	12/15/2014 12:00:00 AM	100	3.81	380.5	3.72	389.1	Short
88	12/15/2014 12:00:00 AM	12/16/2014 12:00:00 AM	100	3.72	371.9	3.62	361.9	Long
1	4/20/2010 12:00:00 AM	5/21/2010 12:00:00 AM	100	3.98	397.5	4.04	391.5	Short
2	5/21/2010 12:00:00 AM	5/24/2010 12:00:00 AM	100	4.04	403.5	4.02	401.7	Long

## Backtest Report for Historical Performance of the Trading Strategy

# NG1

Set: **5** Strategy: **Chaos Barometer**

**D1** 2/12/2010 12:00:00 AM to 2/11/2015 12:00:00 AM



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