



VALUE AVERAGING BACKTEST PERFORMANCE ANALYSIS

Prepared by: Bruce Ramsey

Security name: **VTI - Vanguard Total Stock Market ETF**

Time period: January 2, 2008 to December 3, 2012

Comments:

This report shows the performance of a broad based market ETF.

In this example, VA produced a total return of 74.6% and an annualized return of 11.8%, which outperformed DCA by 46% and lump sum by 55%.

The maximum amount of capital at risk at any point in time was 78%.

IMPORTANT DISCLOSURES FOR BACKTEST PERFORMANCE RESULTS

Backtesting is the process of evaluating a core strategy by applying it to historical data. Backtested performance results are provided for purposes of illustrating historical performance had a core strategy had been available during the relevant period. Backtested performance results are hypothetical and have inherent limitations. VA Investment Software makes no representation that the Value Averaging strategy will achieve performance similar to any backtested performance results. Actual results could differ materially from backtested performance and future results could differ materially from backtested performance. **Past performance is no indication or guarantee of future results.**

Backtested performance results: (i) do not reflect the deduction of any management fees or trading commissions; (ii) are not based on actual trading and do not reflect any market impact of buying and selling securities, trade timing and security liquidity; (iii) reflect prices that are fully adjusted for dividends and corporate actions (e.g., stock splits)

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VALUE AVERAGING LUMP SUM INVESTMENT ANALYSIS - BACKTEST REPORT



Security: **VTI - Vanguard Total Stock Market ETF**

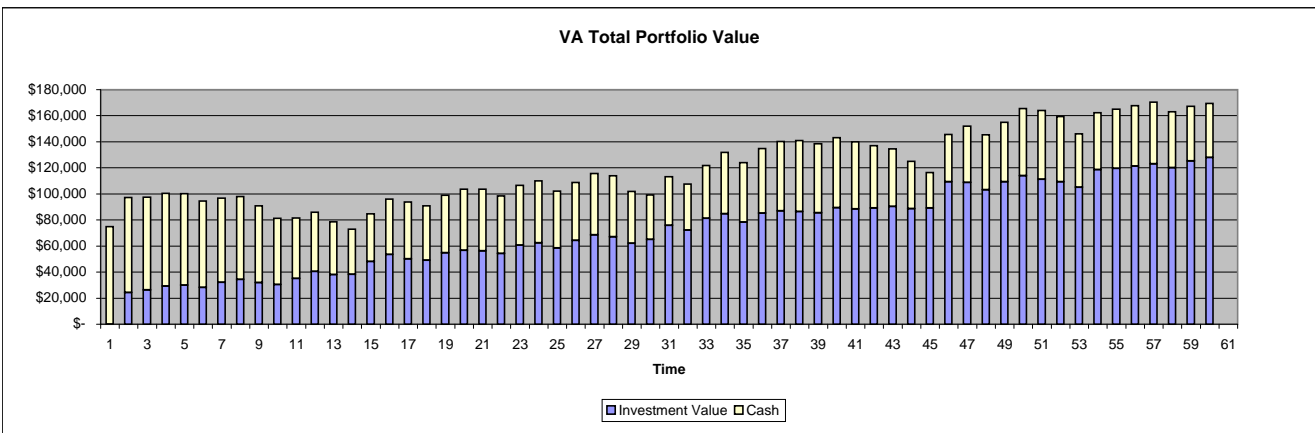
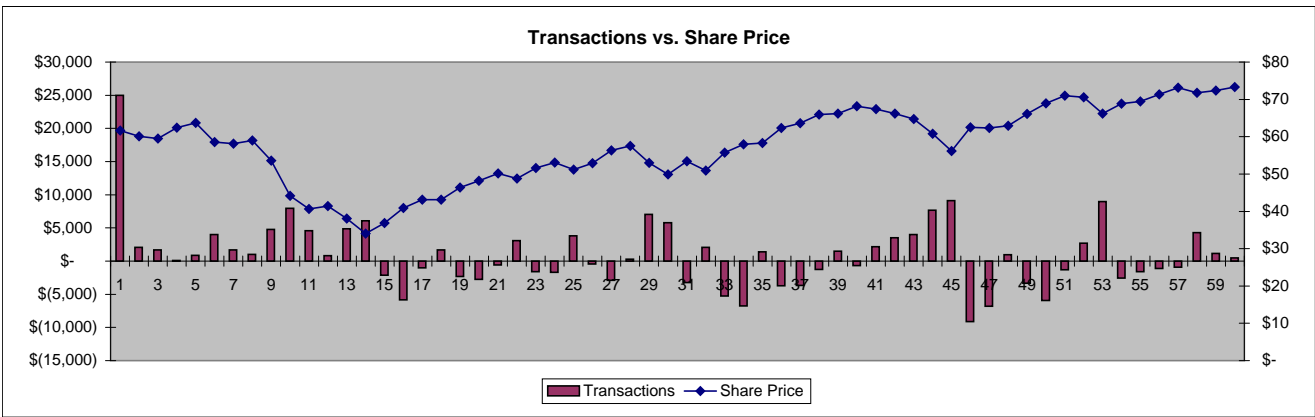
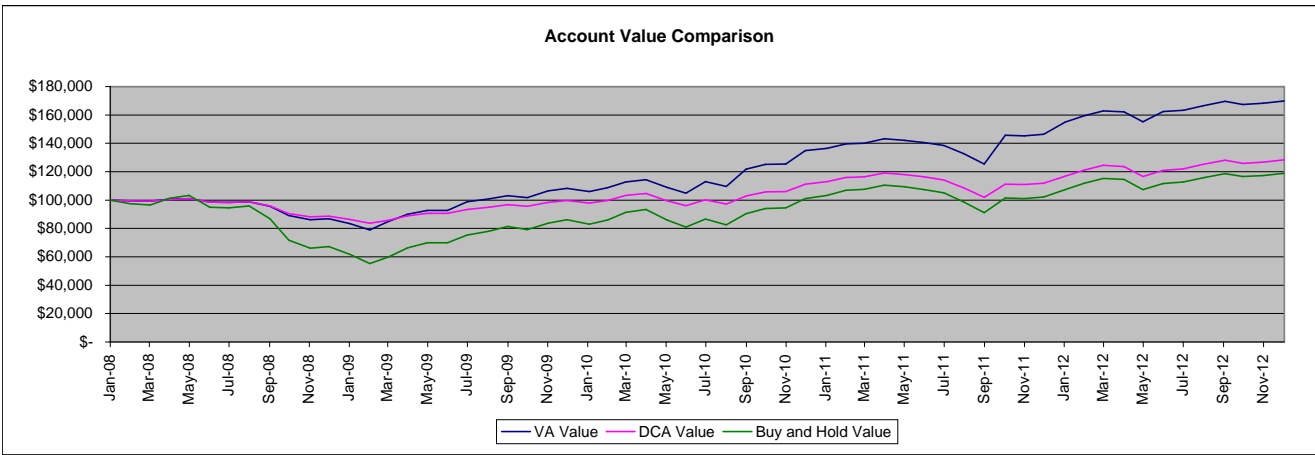
Dollar amount initially allocated to money market fund \$ **100,000**
 Dollar amount of initial investment \$ **25,000** 25%
 Desired annual portfolio growth rate 8.00%
 Sell shares to force the portfolio to maintain the desired level Yes
 Double confirm sell transaction Yes
 Dollar amount of increase / decrease desired each month \$ **1,271**

Start Date: January 2, 2008
 End Date: December 3, 2012
 Investment Term 5 years

VALUE AVERAGING	
Total Portfolio	\$ 169,939
Cost Base	\$ 97,303
Gain/Loss	\$ 72,636
Total Return	74.65%
Annual Return	11.80%
Avg cost/share	55.48
VA BEATS DCA BY:	46.23%
VA BEATS LS BY:	55.73%

DOLLAR COST AVERAGING	
Total Portfolio	\$ 128,421
Cost Base	\$ 100,000
Gain/Loss	\$ 28,421
Total Return	28.42%
Annual Return	5.13%
Avg cost/share	57.06

LUMP SUM	
Total Portfolio	\$ 118,922
Cost Base	\$ 100,000
Gain/Loss	\$ 18,922
Total Return	18.92%
Annual Return	3.53%
Avg cost/share	61.62

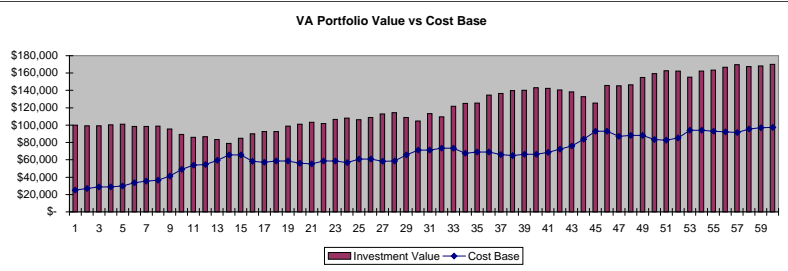


VALUE AVERAGING - LUMP SUM ANALYSIS

1 **Dollar-Cost Averaging Method:** Invest the same amount of money at regular intervals
 2 **Value-Average Method**
 Set a target value and invest the necessary amount to maintain the target value at regular intervals

Fund name **VTI - Vanguard Total Stock Market ETF**

Dollar amount initially allocated to money market fund \$ 100,000
 Dollar amount of initial investment \$ 25,000 25%
 Desired annual portfolio growth rate 8.00%
 Adjust the interest rate each year by 0.00%
 Sell shares to force the portfolio to maintain the desired level (1=yes, 0=no) 1
 Double confirm sell transaction (1=yes, 0=no) 1
 Maximum amount to invest per trade as a percentage of cash available 25.0%
 Dollar amount of increase / decrease desired each month \$ 1,271



DATE	NAV \$	\$ Distributions	Minimum Desired Value \$ (Value Path)	Target ROR	VALUE AVERAGING (VA)				Money Mkt Account \$ after Rebalancing	No. of Shares To Buy (Sell)	Shares Owned After Rebalancing	Capital at Risk	Cash	DOLLAR COST AVERAGING (DCA)				LUMP SUM (LS) BUY AND HOLD		
					Value Before Rebalancing	Investment Value Before Rebalancing	Amount To Invest (Redeem)	Shares Owned Before Rebalancing						No. of Shares to Purchase	Amount Invested	Value of Money Mkt Account	Total Amount of Shares	Total Value	Buy and Hold	Total Amount of Shares
2-Jan-08	61.62	0.0000	25,000	8.00%	-	-	\$ 25,000	75,000	405,712	405,712	25.00%	75.00%	405,712	25,000	75,000	405,712	25,000	\$ 100,000	1,622,850	100,000

Total Portfolio	\$ 169,939
Cost Base	\$ 97,303
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Annual Return	11.80%
Avg cost/share	55.48
VA BEATS DCA BY:	46.23%
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VALUE AVERAGING LUMP SUM - CAPITAL GAINS / LOSS ANALYSIS

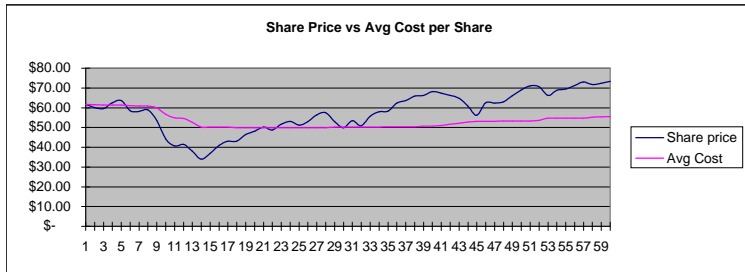


Security:

VTI - Vanguard Total Stock Market ETF

Taxable portion of capital gain 50.00% Cash allocated \$ 100,000
 Marginal tax rate 46.00% Growth rate 8.00%

DATE	NAV \$		Shares Bought or Sold	Share Balance	Cost of Shares	Adjusted Cost Base	Proceeds on Sale	Capital Gain or Loss	Average cost per Share
1	02-Jan-08	\$ 61.62	purchase	405.712	405.7124 \$	25,000.00 \$	-	-	\$ 61.62
2	01-Feb-08	\$ 60.08	purchase	34.332	440.0442 \$	2,062.65 \$	-	-	\$ 61.50
3	03-Mar-08	\$ 59.54	purchase	28.301	468.3455 \$	1,685.06 \$	-	-	\$ 61.38
4	01-Apr-08	\$ 62.45	purchase	1.508	469.8540 \$	94.20 \$	-	-	\$ 61.38
5	01-May-08	\$ 63.71	purchase	13.731	483.5847 \$	874.79 \$	-	-	\$ 61.45
6	02-Jun-08	\$ 58.53	purchase	68.026	551.6105 \$	3,981.55 \$	-	-	\$ 61.09
7	01-Jul-08	\$ 58.17	purchase	28.967	580.5774 \$	1,685.00 \$	-	-	\$ 60.94
8	01-Aug-08	\$ 59.02	purchase	16.992	597.5690 \$	1,002.84 \$	-	-	\$ 60.89
9	02-Sep-08	\$ 53.56	purchase	89.041	686.6100 \$	4,769.04 \$	-	-	\$ 59.94
10	01-Oct-08	\$ 44.20	purchase	179.706	866.3164 \$	7,943.02 \$	-	-	\$ 56.67
11	03-Nov-08	\$ 40.66	purchase	112.967	979.2830 \$	4,593.22 \$	-	-	\$ 54.83
12	01-Dec-08	\$ 41.38	purchase	20.096	999.3785 \$	831.55 \$	-	-	\$ 54.56
13	02-Jan-09	\$ 38.05	purchase	128.116	1127.4945 \$	4,874.81 \$	-	-	\$ 52.68
14	02-Feb-09	\$ 34.04	purchase	178.568	1306.0623 \$	6,078.45 \$	-	-	\$ 50.13
15	02-Mar-09	\$ 36.86	sell	-	1306.0623 \$	-	-	-	\$ 50.13
16	01-Apr-09	\$ 40.91	sell	(142.436)	1163.6265 \$	(7,140.66) \$	5,827.05 \$	(1,313.62) \$	\$ 50.13
17	01-May-09	\$ 43.15	sell	(23.592)	1140.0349 \$	(1,182.71) \$	1,017.98 \$	(164.73) \$	\$ 50.13
18	01-Jun-09	\$ 43.09	purchase	38.699	1178.7339 \$	1,667.54 \$	-	-	\$ 49.90
19	01-Jul-09	\$ 46.42	sell	-	1178.7339 \$	-	-	-	\$ 49.90
20	03-Aug-09	\$ 48.15	sell	(56.782)	1121.9516 \$	(2,833.51) \$	2,734.07 \$	(99.44) \$	\$ 49.90
21	01-Sep-09	\$ 50.14	sell	(11.993)	1109.9582 \$	(598.49) \$	601.35 \$	2.86 \$	\$ 49.90
22	01-Oct-09	\$ 48.82	purchase	63.649	1173.6074 \$	3,107.35 \$	-	-	\$ 49.84
23	02-Nov-09	\$ 51.60	sell	-	1173.6074 \$	-	-	-	\$ 49.84
24	01-Dec-09	\$ 53.07	sell	(31.477)	1142.1301 \$	(1,568.91) \$	1,670.50 \$	101.59 \$	\$ 49.84
25	04-Jan-10	\$ 51.18	purchase	74.910	1217.0402 \$	3,833.90 \$	-	-	\$ 49.92
26	01-Feb-10	\$ 52.94	sell	-	1217.0402 \$	-	-	-	\$ 49.92
27	01-Mar-10	\$ 56.33	sell	(51.192)	1165.8484 \$	(2,555.75) \$	2,883.63 \$	327.88 \$	\$ 49.92
28	01-Apr-10	\$ 57.56	purchase	4.778	1170.6262 \$	275.01 \$	-	-	\$ 49.96
29	03-May-10	\$ 53.02	purchase	132.686	1303.3127 \$	7,035.04 \$	-	-	\$ 50.27
30	01-Jun-10	\$ 49.92	purchase	115.628	1418.9403 \$	5,772.13 \$	-	-	\$ 50.24
31	01-Jul-10	\$ 53.43	sell	-	1418.9403 \$	-	-	-	\$ 50.24
32	02-Aug-10	\$ 50.91	purchase	41.125	1460.0657 \$	2,093.69 \$	-	-	\$ 50.26
33	01-Sep-10	\$ 55.73	sell	-	1460.0657 \$	-	-	-	\$ 50.26
34	01-Oct-10	\$ 57.97	sell	(116.661)	1343.4050 \$	(5,863.20) \$	6,762.82 \$	899.62 \$	\$ 50.26
35	01-Nov-10	\$ 58.27	purchase	23.809	1367.2139 \$	1,387.35 \$	-	-	\$ 50.40
36	01-Dec-10	\$ 62.32	sell	-	1367.2139 \$	-	-	-	\$ 50.40
37	03-Jan-11	\$ 63.60	sell	(57.714)	1309.4996 \$	(2,908.69) \$	3,670.63 \$	761.94 \$	\$ 50.40
38	01-Feb-11	\$ 65.95	sell	(18.968)	1290.5321 \$	(955.93) \$	1,250.91 \$	294.98 \$	\$ 50.40
39	01-Mar-11	\$ 66.23	purchase	22.305	1312.8368 \$	1,477.24 \$	-	-	\$ 50.67
40	01-Apr-11	\$ 68.15	sell	-	1312.8368 \$	-	-	-	\$ 50.67
41	02-May-11	\$ 67.42	purchase	31.916	1344.7525 \$	2,151.76 \$	-	-	\$ 51.06
42	01-Jun-11	\$ 66.21	purchase	52.904	1397.6563 \$	3,502.76 \$	-	-	\$ 51.64
43	01-Jul-11	\$ 64.71	purchase	61.576	1459.2325 \$	3,984.60 \$	-	-	\$ 52.19
44	01-Aug-11	\$ 60.77	purchase	125.886	1585.1182 \$	7,650.08 \$	-	-	\$ 52.87
45	01-Sep-11	\$ 56.17	purchase	162.065	1747.1834 \$	9,103.20 \$	-	-	\$ 53.18
46	03-Oct-11	\$ 62.55	sell	-	1747.1834 \$	-	-	-	\$ 53.18
47	01-Nov-11	\$ 62.32	sell	(108.767)	1638.4162 \$	(5,783.91) \$	87,126.07 \$	994.46 \$	\$ 53.18
48	01-Dec-11	\$ 62.93	purchase	15.135	1653.5515 \$	952.46 \$	-	-	\$ 53.27
49	03-Jan-12	\$ 66.12	sell	-	1653.5515 \$	-	-	-	\$ 53.27
50	01-Feb-12	\$ 68.91	sell	(86.277)	1567.2748 \$	(4,595.64) \$	5,945.33 \$	1,349.69 \$	\$ 53.27
51	01-Mar-12	\$ 71.02	sell	(18.527)	1548.7482 \$	(986.84) \$	1,315.76 \$	328.92 \$	\$ 53.27
52	02-Apr-12	\$ 70.57	purchase	38.280	1587.0280 \$	2,701.40 \$	-	-	\$ 53.68
53	01-May-12	\$ 66.18	purchase	135.764	1722.7923 \$	8,984.88 \$	-	-	\$ 54.67
54	01-Jun-12	\$ 68.85	sell	-	1722.7923 \$	-	-	-	\$ 54.67
55	02-Jul-12	\$ 69.46	sell	(22.670)	1700.1224 \$	(1,239.33) \$	1,574.65 \$	335.32 \$	\$ 54.67
56	01-Aug-12	\$ 71.33	sell	(15.712)	1684.4099 \$	(858.98) \$	1,120.77 \$	261.79 \$	\$ 54.67
57	04-Sep-12	\$ 73.11	sell	(12.667)	1671.7431 \$	(692.47) \$	926.07 \$	233.60 \$	\$ 54.67
58	01-Oct-12	\$ 71.79	purchase	59.795	1731.5383 \$	4,292.69 \$	-	-	\$ 55.26
59	01-Nov-12	\$ 72.34	purchase	15.863	1747.4016 \$	1,147.55 \$	-	-	\$ 55.41
60	03-Dec-12	\$ 73.28	purchase	6.432	1753.8337 \$	471.34 \$	-	-	\$ 55.48



Total Proceeds	\$ 44,079.87
Capital Gain/Loss	\$ 4,314.86
Taxable gain	\$ 2,157.43
Tax payable	\$ 992.42
Net Gain	\$ 3,322.44
Net Proceeds	\$ 43,087.46