## Timing Model Backtest

Market timing results from 2004 to 2014 based on relative strength model holding the top 4 best performing assets.

The model uses a single performance window of 3 month(s).

Risk control based on 6-month moving average is used to keep assets in cash if their price is below the moving average.

Trades for the timing portfolio are performed at the start of each month.

2004 to 2006 uses SPY, EFA, IWM, IYR, SHY, IEF, TLT and LQD

2007 Adds IAU

2008 Adds RWX,TLH and IEI

2009 Adds HYG and SCZ

## **Timing Model Assets**

Ticker Name

LQD iShares GS \$ InvesTopTM Corporate Bond Fund ETF
SHY iShares Barclays 1-3 Year Treasury Bond Fund ETF
IEF iShares Barclays 7-10 Year Treasury Bond Fund ETF
TLT iShares Barclays 20 Year Treasury Bond Fund ETF

IWM iShares Russell 2000 ETF

IYR iShares Dow Jones U.S. Real Estate Index Fund ETF

SPY SPDR S&P 500 ETF

EFA iShares MSCI EAFE Index Fund ETF

IAU iShares Gold

RWX SPDR Int'l Real Estate

TLH iShares 10-20 Year Treasury Bond ETF
IEI iShares 3-7 Year Treasury Note ETF
HYG iShares iBoxx High Yield Corporate bond ETF

8.72%

SCZ iShares MSCI EAFE Small Cap ETF

Portfolio	Initial Balance	Final Balance	Avg. Annual Return	Std.Dev.		<b>Best Year</b>	Worst Year
Timing Portfolio	\$10,000	\$36,918	12.61%	•	8.72%	28.09%	2.11%
S&P 500 Total Return	\$10,000	\$23,221	7.96%	,	17.88%	32.39%	-37.00%

17.88%

## **Annual Returns**

Standard Deviation

Timing Portfolio S&P 500 Portfolio																			
Year	Ti	ming Return	\$10,000.00	\$10,000.00 S&P 500 T	otal Return	LQD	SHY	IEF	TLT	IWM	IYR	SPY	EFA	IAU	RWX .	ΓLH I	EI I	HYG S	SCZ
	2004	10.12%	\$11,012.00	\$11,088.00	10.88%	5.72%	0.66%	4.12%	8.71%	18.05%	30.15%	10.70%	18.95%						
	2005	2.11%	\$11,244.35	\$11,632.42	4.91%	1.16%	1.53%	2.64%	8.61%	4.46%	8.94%	4.83%	13.32%						
	2006	21.08%	\$13,614.66	\$13,469.18	15.79%	4.22%	3.89%	2.52%	0.71%	18.27%	34.91%	15.85%	25.81%	22.27%					
	2007	3.13%	\$14,040.80	\$14,208.64	5.49%	3.73%	7.35%	10.37%	10.29%	-1.78%	-18.12%	5.14%	9.94%	30.36%					
	2008	3.01%	\$14,463.43	\$8,951.44	-37.00%	2.40%	6.62%	17.91%	33.93%	-34.13%	-39.88%	-36.81%	-41.04%	5.11%					
	2009	28.09%	\$18,526.21	\$11,319.99	26.46%	8.46%	0.35%	-6.59%	-21.80%	28.51%	30.46%	26.36%	26.95%	23.90%	36.45%	-9.12%	-1.70%	28.57%	42.85%
	2010	19.53%	\$22,144.38	\$13,024.78	15.06%	9.33%	2.28%	9.37%	9.05%	26.93%	26.58%	15.06%	8.15%	29.46%	22.08%	9.70%	6.32%	11.89%	21.50%
	2011	21.11%	\$26,819.05	\$13,299.61	2.11%	9.73%	1.44%	15.64%	33.96%	-4.44%	5.52%	1.89%	-12.25%	9.57%	-15.05%	21.64%	8.30%	6.77%	-15.14%
	2012	10.44%	\$29,618.96	\$15,427.54	16.00%	10.24%	0.25%	3.66%	2.41%	16.70%	18.21%	15.99%	18.82%	6.89%	39.11%	3.54%	1.80%	11.05%	21.28%
	2013	15.27%	\$34,141.78	\$20,424.53	32.39%	-2.00%	0.21%	-6.09%	-13.37%	38.69%	1.16%	32.31%	21.40%	-28.26%	4.36%	-8.27%	-1.84%	5.75%	28.61%
	2014	8.13%	\$36,917.50	\$23,220.64	13.69%	8.21%	0.45%	9.07%	27.30%	5.03%	26.69%	13.46%	-6.20%	-2.05%	4.34%	14.28%	3.17%	1.90%	-6.07%
Avg. Ann. Ret	turn	12.61%		7.96%															