4-9-2014

Research exercise: Betting Against Beta: A Low Volatility Investment Strategy for Market Period 2008-2012

Betting Against Beta: A Low Volatility Investment Strategy for the Market Period 2008-2012

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Study Objective

Examine the risk/return relationship For 6 style/size ETF's Vs. S&P 500, 2008-2012

Risk Measure: Beta

ETF's Analyzed

1. Large Cap Growth (LCG)
2. Large Cap Value (LCV)
3. Mid Cap Growth (MCG)
4. Mid Cap Value (MCV)
5. Small Cap Growth (SCG)
6. Small Cap Value (SCV)

Model Specification

Rit = a + b (Rmt)

Where Rit = Returns for ith ETF

A = Intercept

B = Beta

Rmt = Return to market (S&P 500)

Portfolio Weighting Model

IBit = (1/Bit) = Inverse of beta

Wit = (Ibit/Sum(Ibit)) = Portfolio Weight

Dvit = Wit x 6,000,000 = Dollar investment in ith ETF

Sit = (Dvit/Pit) = Shares in ith ETF

DVit+1 = Sit x Pit+1 = Dollar investment in t+1

Hypothesis:

An inverse beta strategy generates alpha in volatile markets

Conclusions:

08-12: IB portfolio outperforms S&P by 14.70%

- All IB weighted ETF's outperform S&P except LCV

09-12: IB portfolio outperforms S&P by 41.77%

- All IB weighted ETF's outperform S&P

Summary: Portfolio results indicate IB weighted portfolio of 6 style/size ETF's outperform S&P when market conditions are highly volatile

Portfolio Performance

2008-2012		
ETF	**Returns**	**Alpha**
LCG	8.46%	11.06%
MCG	28.38%	30.98%
SCG	24.63%	27.23%
LCV	-13.06%	-10.46%
MCV	10.78%	13.38%
SLV	15.59%	18.19%
Port	12.10%	14.70%
SPY	-2.60%	

2009-2012		
ETF	**Returns**	**Alpha**
LCG	80.94%	23.49%
MCG	117.68%	60.23%
SCG	128.33%	70.88%
LCV	78.47%	21.02%
MCV	100.05%	42.60%
SLV	107.94%	50.49%
Port	99.22%	41.77%
SPY	57.45%	