



A portfolio weighting model for the industrials sector with revenue growth as the factor weight: An Empirical analysis of portfolio returns, 2009-2022

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Study Objective:

Hypothesis Tests:

1. Determine if revenue growth factor model outperforms an equal weight model
2. Determine if revenue growth is a priced in risk factor

Portfolio Characteristics:

1. Sector : XLY
2. # of Stocks:10
3. State Economic Variable: Consumer Spending (PCE)
4. Loading Factor: Revenue Per Share
5. Size: Large Cap
6. Strategies: (1) Buy and Hold
(2) Adjustable Shares
7. Regression Period: 2009-2019
8. Period of Analysis
 - (1) 2009-2019
 - (2) 2009-2020
 - (3) 2009-2021
 - (4) 2009-2022

Portfolio Weighting Model (RS):

Investment Strategy: Constant Share Model

1st Iteration:

- Step 1. $R_{si}(t) = A_i + B_i(PC_{Et})$
- Step 2. $W_{li}(t) = B_i / \sum B_i$
- Step 3. $D_i(t) = W_{li}(t) * 1,000,000$
- Step 4. $SHR_{Si}(t) = D_{li}(t) / P_i(t)$
- Step 5. $MV_i(t+1) = SHR_{Si}(t) * P_i(t+1)$
- Step 6. $PV(t+1) = \sum MV_i(t+1)$

2nd Iteration

- Step 7. $MV_i(t+2) = SHR_{Si}(t) * P_i(t+2)$
- Step 8. $PV(t+2) = \sum MV_i(t+2)$

Total Iterations: 11

Constant Share Strategy			
Years	Model Cumulative Return	Equal Weight Cumulative Return	Alpha
2009-2019	323.81%	320.77%	3.04%
2009-2020	347.93%	345.59%	2.34%
2009-2021	396.02%	393.81%	2.21%
2009-2022	433.15%	408.54%	24.61%

Constant Share Strategy			
Years	Model Cumulative Return	SPY Cumulative Return	Alpha
2009-2019	323.81%	257.74%	66.07%
2009-2020	347.93%	314.98%	32.95%
2009-2021	396.02%	426.65%	-30.63%
2009-2022	433.15%	322.85%	110.29%

Adjustable Share Model Strategy			
Years	Model Cumulative Return	SPY Cumulative Return	Alpha
2009-2019	408.09%	257.74%	150.35%
2009-2020	482.30%	314.98%	167.32%
2009-2021	511.50%	426.65%	84.86%
2009-2022	653.03%	322.85%	330.18%