A Portfolio Weighting Model for the Healthcare Sector with firm revenue growth 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 : XLV
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):

<u>Investment Strategy: Constant Share Model</u>
<u>1st Iteration:</u>
Step 1. Rsi(t) = Ai+Bi(PCEt)
Step 2. WIi(t) = Bi / Sum Bi
Step 3. DI(t) = WI(t)*1,000,000
Step 4. SHRSi(t) = DIi(t) / Pi(t)
Step 5. MVi(t+1) = SHRSi(t)*Pi(t+1)
Step 6. PV(t+1) = Sum MVi(t+1)
<u>2nd Iteration:</u>
Step 7. MVi(t+2) = SHRSi(t)*Pi(t+2)
Step 8. PV(t+2) = Sum MVi(t+2)
Total Iterations: 10

Constant Share Strategy			
	Model	Equal Weight	
Years	Cumulative Return	Cumulative Return	Alpha
2009-2019	285.38%	391.52%	-106.13%
2009-2020	373.34%	522.97%	-149.63%
2009-2021	478.53%	761.72%	-283.19%
2009-2022	672.43%	724.49%	-52.07%

Constant Share Strategy			
	Model	SPY	
Years	Cumulative Return	Cumulative Return	Alpha
2009-2019	285.38%	257.74%	27.64%
2009-2020	373.34%	314.98%	58.36%
2009-2021	478.53%	426.65%	51.88%
2009-2022	672.43%	322.85%	349.57%

Adjusted Share Strategy			
	Model	SPY	
Years	Cumulative Return	Cumulative Return	Alpha
2009-2019	373.34%	257.74%	115.60%
2009-2020	478.53%	314.98%	163.55%
2009-2021	672.43%	426.65%	245.78%
2009-2022	631.77%	322.85%	308.92%

Findings:
1. Equal Weight outperforms Constant Share Model
2. Constant Share Model Outperforms SPY
3. Adjustable Share Model Outperforms SPY
4. Equal Weight outperforms both Factor Models