



Portfolio Weighting Models for the S&P 500 Financial Sector (XLF): An Empirical Analysis of Portfolio Returns 2009-2021

Name: Thomas Goslee, Tommy Letke, Nathan Jabaay

Davis Center for Portfolio Management

Advisor: Dr. Bob Dean and Dr. Tony Caporale

Study Objective:

Determine if concentrated portfolio weighting models for the XLF sector can outperform the market.

Portfolio Characteristics:

1. Sector : Financials (XLF)
2. # of Stocks: 10 and 20
 - Top 10, Next 10, and Top 20 by Market Value
3. State Economic Variable: Personal Consumption Expenditure (PCE)
4. Loading Factors:
 - (1) Stock Price
5. Large Cap
6. Style: Value
7. Strategy: Buy and Hold
8. Regression Period: 2009-2019
9. Period Returns
 - (1) 2009-2019
 - (2) 2009-2020
 - (3) 2009-2021

Portfolio Weighting Model (RS):

1st Iteration

- Step 1. $\Psi_i(t) = A_i + B_i(PCE(t))$
- Step 2. $W_i(t) = B_i / \sum B_i$
- Step 3. $D_i(t) = W_i(t) * 1,000,000$
- Step 4. $SHRS_i(t) = D_i(t) / P_i(t) \quad t=b2009$
- Step 5. $MV_i(t+1) = SHRS_i(t) * P_i(t+1)$
- Step 6. $PV(t+1) = \sum MV_i(t+1)$

13 additional iterations

XLF Top Ten Portfolio			
Time Period	Model	SPY	Alpha
2009-2019	277%	288%	-11%
2009-2020	348%	347%	1%
2009-2021	486%	443%	43%

XLF Next Ten Portfolio			
Time Period	Model	SPY	Alpha
2009-2019	642%	288%	354%
2009-2020	648%	347%	301%
2009-2021	895%	443%	452%

XLF Top Twenty Portfolio			
Time Period	Model	SPY	Alpha
2009-2019	466%	288%	178%
2009-2020	503%	347%	156%
2009-2021	697%	443%	254%

Conclusion:

- Top 10 Portfolio had mixed results in outperformance vs. SPY
- Next 10 Portfolio outperformed SPY in all time periods
- Top 20 Portfolio also outperformed SPY in all time periods
- In all models there is a positive progression in cumulative returns/Alpha