Market Timing Using Many Predictors

Introduction:

This project investigates the feasibility of building market-timing strategies using multiple return predictors. In the academic literature, there has been a long debate on the possibility of return predictability. Both sides offer strong arguments. Nobel laureates Robert Merton and Paul Samuelson thought it is impossible to forecast the market, but Nobel laureates Eugene Fama and Robert Shiller think it is possible. This project tackles this problem using many variables that have been proposed in the academic literature.

Project Outline:

1. Individual predictability
    a. Look at each variable and how they can forecast market returns (last column on the right)
    b. Split the sample in half. Using the first half to fit the model, then look at forecasting results in the second half
    c. Which variables work well?
2. Combining predictors
    a. Run a "kitchen sink" regression using all of the variables. How do the results compare to 1a?
    b. Split the sample in half. Repeat 1b with "kitchen sink"
3. Correlation screening
    a. Using the first half of the sample, pick predictors that have correlations with the forecasting target greater than 10%
    b. Using predictors that have correlations greater than 10%, fit a forecasting model for the second half. How does the result compare to 1 and 2?
4. LASSO regression
    a. Run a LASSO regression using all of the predictors. How does it do?
    b. Fit LASSO using the first half. How does the fit work in the second half out-of-sample?

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