

Problem 3.5

Data Description

The file `Problem3.5_data.xlsx` (also provided in csv format) contains the data for Problem 3.5. The dataset consists of the monthly net simple nominal return series from July 1926 to June 2016 in percentage point format for six assets: four Fama-French size/value portfolios (columns 2-5), the market portfolio (column 6), and the 30-day Treasury bill as a proxy for the riskless asset (column 7).

The six Fama-French portfolios formed on size and book-to-market are the intersections of two portfolios of stocks sorted by size (market equity or ME) and three portfolios of stocks sorted by the ratio of book equity to market equity (BE/ME). The portfolios are constructed yearly at the end of each June. Year- t portfolios include all NYSE, AMEX, and NASDAQ stocks with available market equity data for the December of year $t - 1$ and June of year t , and (positive) book equity data for year $t - 1$. The portfolios in columns 2-5 are the four corners of the 2-by-3 size/value portfolios. In particular:

Small-Low (small size and low book-to-market ratio equities, SMLO): the value-weighted average return of stocks with market equity (at the end of June of year t) below the median NYSE market equity and book-to-market ratio (book equity for the last fiscal year end in $t - 1$ divided by market equity for December of $t - 1$) below the 30th NYSE percentile.

Small-High (SMHI): the value-weighted average return of stocks with market equity below the median NYSE market equity and book-to-market ratio above the 70th NYSE percentile.

Big-Low (BILO): the value-weighted average return of stocks with market equity above the median NYSE market equity and book-to-market ratio below the 30th NYSE percentile.

Big-High (BIHI): the value-weighted average return of stocks with market equity above the median NYSE market equity and book-to-market ratio above the 70th NYSE percentile.

The market return (column 6) is the value-weighted average return of all CRSP firms incorporated in the US and listed on the NYSE, AMEX, or NASDAQ (certain poor-quality individual stock observations are excluded).

The 30-day Treasury bill rate series is from Ibbotson Associates.

All return series are constructed using data from the August 2017 version of the CRSP database.