

# M237M-3 Behavioral Finance Project

## The Asset Growth Effect (returns on stocks sorted by growth on assets)

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Paper: Cooper, Gulen, Schill (2008): Asset Growth and the Cross-Section of Stock Returns

Backtest is done using **R**. We use all NYSE, Amex, and NASDAQ nonfinancial firms (excluding firms with four-digit SIC codes between 6000 and 6999) listed on the CRSP monthly stock return files and the Compustat annual industrial files from the period **Jan 1990 - Dec 2015**.

Our main variable of concern, the **annual firm asset growth rate** (ASSETG) is calculated using the year-on-year percentage change in total assets (Compustat data item 6). The firm asset growth rate for year  $t$  is estimated as the percentage change in data item 6 from fiscal year ending in calendar year  $t - 2$  to fiscal year ending in calendar year  $t - 1$ , as below:

$$ASSETG(t) = \frac{Data6(t - 1) - Data6(t - 2)}{Data6(t - 2)}$$

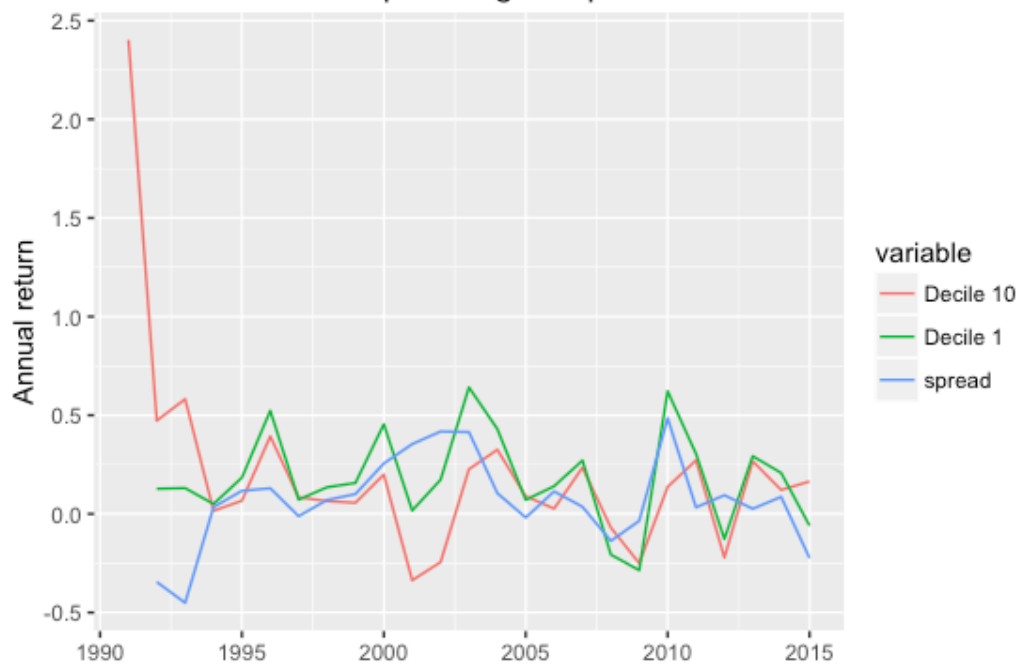
At the end of June of each year  $t$  stocks are allocated into deciles based on annual asset growth rates (ASSETG) and portfolios are formed from July of year  $t$  to June of year  $t + 1$ . The portfolios are annually rebalanced. The decile 10 firms are the high growth firms.

We examine the **annual returns** in the 12 months after portfolio formation for each year in our sample period 1990-2015. In the figure we plot the annual Year 1 returns for equal-weighted (Panel A) and value-weighted (Panel B) portfolios sorted by past asset growth rates. Decile 1 refers to firms in the lowest asset growth decile and decile 10 refers to firms in the highest asset growth decile. We also plot the spread between these two series (the blue line), which is the difference between low growth and high growth portfolio returns.

The graph shows that returns of low growth firms consistently exceed those of high-growth firms, particularly for the EW portfolios.

Conclusion: **low annual asset growth rate predicts high returns in the future.**

Panel A: Equal-weighted portfolios



Panel B: Value-weighted portfolios

