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Computational Investing, Part I

152: The Fundamental Law: Buffet, Simons & Coin flipping

Find out how modern electronic markets work, why stock prices change in the ways they do, and how computation can help our understanding of them. Learn to build algorithms and visualizations to inform investing practice.

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Recommended Readings

- Grinold & Kahn chapters 5 & 6
- Balch's blog:
 - http://augmentedtrader.wordpress.com
 - Article about Fundamental Law
 - Article about coin flipping



Observation

- Jim Simons (rentec) and Warren Buffet (BRK) offer about the same performance.
- Buffet's portfolio contains few equities:
 - 54% in just 3 stocks (2010)
- Simons trades actively (100Ks/day?)



Question:

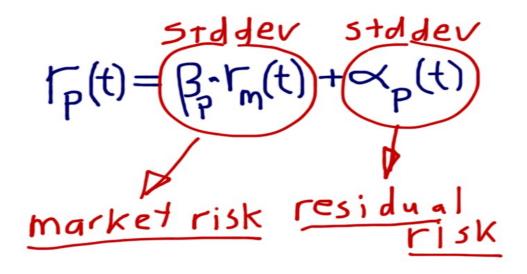
- Can a single theory relate the performance of these two titans?
- Yes, the "Fundamental Law of Active Portfolio Management"



First, Some Preliminaries. Recall:



And













Information Coefficient (IC, Skill)

- IC
- Correlation of forecast to actual return

Remember biased coin?



Breadth (BR)

- BR
- Number of opportunities to execute.

Number of coin flip bets











Next: An Example