Grinold, Richard C. & Kahn, Ronald N. – Active Portfolio Management

McGraw-Hill, 2000 2nd ed, [Finance] Grade ★★★★★

Academic financial text books have, to a large extent, focused on beta and the so called efficient market. *Active Portfolio Management* was groundbreaking when it was first published in 1994 as instead it was devoted to the practical process of generating alpha from a quantative angle. Richard Grinold and Ronald Kahn, today retired and at BlackRock respectively, share a history in academia, at BARRA and above all at the quant behemoth Barclays Global Investors where they both held leading positions while writing this book.

Even though the book is full of financial theory the approach is practical. The topic at hand is the generation of risk adjusted relative returns. The market returns are always the baseline and success is measured by the IR (the ratio of residual return to residual variance) rather than an academic Sharpe ratio. When I first read this book 10 – 12 years ago I didn't by any means find it enjoyable. It's thick, theoretical, filled with formulas and I was frankly not ready for it. Yet, over the years I find myself returning to the key concepts of the book over and over again. Out of the four parts the first lays out the authors' theories and then the latter three cover the practical work of a quant PM.

The claim to fame of the book is a concept called The Fundamental Law of Active Management that reads $IR=IC*\sqrt{BR}$. It states that there are two sources of oportunities to increase the information ratio. The first is the ability to forecast asset's residual return, measured by the information coefficient. The IC is the connection between forecasts and eventual returns, $IC=2*(N_1/N)-1$ where N_1 denotes the number of correct bets and N the total number of bets made. It's a measure of skill. Active asset management is all about forecasting. Success in forecasting doesn't only hinge on doing things right but also on doing the right thing, i.e. not only on the PMs skill but on wheather the pond he is fishing in is promising. This is where BGIs quant signals come into play but also Warren Buffett's concept of Graham and Doddsville. The second source of IR is breadth – the number of independent active oportunities per year the PM have to use his skill on. IC is about the quality of investment opportunities while BR is about the quantity of investment opportunities through coverage of more securities or a higher frequency of opportunities. It is for example more valuable to be able to forecast the returns of 1600 stocks than 1100 stocks. To increase the IR from 0,5 to 1,0 one would need to double skill, increase breadth by a factor of four or some combination of the two. This additive value of further breadth requires investment opportunities to be totally uncorrelated (this favours an eclectic investment style). If a new opportunity is fully correlated to a previous one it adds no IR. Most opportunities fall somewhere in between.

Often the asset management process focuses excessively on the quality of bets versus the quantity. The concept of breadth emphasizes the negative secondary effects that come with placing limits on an investment process with an edge. It's not only that limiting the investment universe deducts IR, the implications are broader. Limiting yourself to being long only lowers IR. Placing restrictions on the amount of cash in the portfolio lowers IR, so does demanding sector neutrality in an equity portfolio etc. In reality you only need to have a very small edge, say a 0,52 hit ratio to create a great IR if the breadth is large – so don't constrain yourself without good cause.

The opening line of the book reads "*The art of investing is evolving into the science of investing.*" In many ways the book was a precursor to today's world of multifactor risk factor models, exotic betas etc., i.e. the systematization of all the alpha signals that can be systemized - leaving precious little pure alpha for traditional active investors. In an interview Grinold stated "*The goal is to replace heroic personalities contending in an atmosphere of greed and fear with compelling hypotheses subjected to hard data.*" This is an important book, but I kind of like my heroes.

Mats Larsson, January 1, 2013