Factors and Investing

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1 Overview

Factors and investing – what is this about?
Keywords for talk: An academic perspective on factor investing – where is it coming from?

1.1 Starting point

Issue of interest: predictable variation in the cross section of asset returns.
Classical theory: CAPM:
Only relevant risk is the one that contributes to future consumption opportunities.
When the only investment opportunity is the equity market and risk free investment: Future consumption opportunities determined by how much earned in the equity market (the market portfolio).
Therefore: Only relevant risk for a single asset: Covariability with market portfolio (β).
$\rightarrow$ only thing that should affect crossectional variation is beta.
$\rightarrow$ Empirically: An estimate of beta should be all that is needed for understading the risk-return tradeoff for a given stock.
However....

1.2 The history of empirical work on the US crossection 1970–today

Continous discovery of new "factors" that seem relevant "over and above" / "instead of" beta.

- Size
- Book/Market
- January
- Earnings/Price
- Momentum
- Liquidity
- (Corporate) Investments
- ...

For each of these, show some of the evidence.

1.3 Implications for risk adjustment / performance measurement

Given that we accept the factors are true:

A portfolio manager should incorporate information about factors into portfolio selection.

A portfolio manager is therefore "good" only if the portfolio "performs better" than what could be achieved by optimally incorporating the right factors into the portfolio.

"Raise the standard" for what is superior performance: The performance above what could be achieved from a mechanical application of factor adjustment.

1.4 Result: method for looking for superior performance (alpha)

Running "factor regressions."

Go through what is involved.

Qualification: Any empirical estimate involves estimation uncertainty.

1.5 The NBIM "Factor Wars" of 2015

The Ang et al report in 2012: Make the point that what is relevant is the "factor adjusted alpha"

Not much changes in NBIM's public reporting.

Summer of 2015: Series of DN articles on this, particularly by Hoddevik and Priestley, arguing that NBIM is "hiding something" since they are not producing such estimates.

Fall of 2015: Expert group (including Priestley and me) choosing what factor model to use.

NBIM required by the Ministry of Finance to report according to this recommenation.

I will present the recommended model, and the latest update.

1.6 Returning to the academic perspective

Are factors real?

Talk about some recent academic work, asking in a different manner whether factors are relevant: Do they survive after having been "discovered"?

1.7 Implication for asset allocation

The identified factors have implications for investing:

Construct portfolios that brings information about exposure to factors into asset selection.

For example: the "size" effect →

- "Long" investors: underweight large companies, overweight small companies.

  Implementation problem:

  - Identifying exposures
  - Choice of what "factors" to incorporate into portfolio building.
  - Correctly combine the selected factors into adjusting weights.

Constructing: "Long/Short" portfolio isolating one factor.