



CAPITAL  
MANAGEMENT

## NON-CAP WEIGHTED INDEXES

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# Fundamental Indexing (FI)

- Rather than speak for a bit, I'm going to share with you a fictionalized dialogue between myself and Rob.
- It's obviously made up, but it approximates our real life interchange on this topic and sums up the issues pretty well.

# Our Good Looking Protagonists



Rob Arnott



Cliff Asness



I have invented a theory about how massive bodies are pulled toward each other. I call it “fundamental attraction.”





Yes Rob, we know about  
this, we call it gravity.





You don't understand, it makes remarkably accurate predictions.





Yes, we know,  
it's called gravity.





But it works everywhere we've tried it!!!! This is really amazing.







**ROB, LISTEN TO ME, WE  
CALL IT FRICKIN GRAVITY!**





I better hurry up and  
trademark this...





**YOU CANNOT FRICKIN  
TRADEMARK GRAVITY!**





Of course not, pay attention, it's called "fundamental attraction."





It's really not.





So are you saying you don't think my new law works?  
Should I show you again how well it works in so many places?





No, I'm saying my frickin  
head is going to explode.





Hey, who is that?







Why, I think it might be the  
Wizard of Wharton, professor  
Jeremy Siegel.





Hey guys! I've just invented something called a "wise pulling force." It's going to be huge!





Did you guys hear that pop?  
That was my head exploding.



**Let's Get More Serious**

# What I'm Saying, And Not Saying

- I am not here to challenge Rob on either of these facts
  - Fundamental Indices have higher expected returns than cap weighted indices
  - This works, at least in part, because there is noise in prices
- I am here to challenge the notion that even one iota of this is new

# What Will (or did) Rob Say?

- Will (or did) he do his standard talk / paper including these highlights?
  - That FI's relation to value investing is only "slight".
  - The idea that noise driving these effects is a relatively original proposition.
  - These facts have been suppressed by a vast efficient markets conspiracy, a silence Rob's heroically breaking.

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# In Case You Missed The “One” Line

$$W_{i,FI} = \frac{B_i / P_i}{B_{MKT} / P_{MKT}} W_{i,CAP}$$

- FI is precisely, and exactly, and only a value tilt away from cap-weighting.
- In particular, a stock with same P/B as the cap-weighted market is held at the same weight in both.
- Tilting based on value already forms the core of most “quant” products
- There is literally nothing new here beyond marketing (pretty good marketing actually)

# False Quibbles With the One Liner

$$W_{i,FI} = \frac{B_i / P_i}{B_{MKT} / P_{MKT}} W_{i,CAP}$$

- Averaging four factors changes nothing.
- FI results are often shown allowing a larger universe on FI side. Only way to compare fairly is over same universe.
- There are no legit quibbles. The tilt is precisely proportional to your valuation ratios.

# Rob on Whether It's Value

- “We’ve already noted that critics of Fundamental Indexation dismiss the concept as proxying for the small-cap and value effects. In the large-company arena, this has some slight merit.”\*
- That he said “some” was not bad enough. But he actually said “slight.” Really. I had to read it twice.

\* “Fundamental Indexes: Current and Future Applications”, Arnott and West. Underlining is mine.

# So, Why Am I Upset?

- I love value investing, that can't be it
- I don't yell and scream about the myriad of other value products out there infringing on my obvious sole right to rip-off Fama/French/Graham/Dodd/Etc.
- So what is it?

# The Answer

- The FI product does not upset me
- Rob's multiple claims to originality, intellectual heroism, discovery, etc., do upset me a great deal.
- His product may or may not be reasonable (based on details of portfolio construction/trading and fees).
- His other claims are not reasonable.



# What Academics Think

- Almost all academics, including Fama and French, think markets are not perfectly efficient.
- A significant portion of academia believes that markets are non-trivially inefficient.
- Those believers are not heretics running from the stake, but some of the biggest / most lauded names in research.

# What Academics Think II

- The belief in market inefficiency held by many academics is the same thing as Rob saying there is “noise” in prices.
- This noise has long been one of the prime possible explanations of value’s efficacy.

# What Academics Think III

- For example, Fischer Black's 1986 AFA presidential address, which he happened to entitle "Noise", explored the implications of mistakes in security prices.
- At least since LSV (1993), noise has been one of the explanations for value.
- "Behavioral finance" can be described as the study of the irrationalities that create the noise in security prices.

# What Rob Thinks

- Yet reading Rob's work you'd think that he is heroically championing the new idea that there is "noise" in prices.
- And, that he is doing so in the face of a witheringly oppressive academic thought police.
- This is simply not true, it is neither a new idea nor repressed.

# Rob's Fallback Position

- In response to the critique that FI is just value investing, Rob is finally giving a little (he used to fight this harder), but still responds that he has made two very important innovations
  1. The idea that “noise” in prices drives this effect (and others).
  2. The fact that Fundamental Indexes are constructed without regard to prices means they are not just about value.

# Why He's Still Wrong

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I just addressed this. I have no model for why Rob keeps claiming this is original.

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I think FI is value investing for people who don't understand ratios.

# Some Specifics

- My general, and by far most important point, is that, despite the grandiose claims, there is nothing new in FI.
- But all sorts of specific things also annoy me!
- Here are a few.

# Active is the New Passive\*

- FI is purely an active value tilt. In the past I have harped on Rob's use of the word "index" in FI, perhaps too much I admit.
- But Rob is sort of implying that this should be a core holding for investors. He thinks it might have a trillion in capacity.
- It does not. As an active strategy it's  $E[r]$  goes down as soon as he wins recruits.

\* I'm stealing this slide title from Tuomo Vuolteenaho.

# Why Not Call It Active?

- If Rob said “I have an active quant value strategy” he’d probably have a harder time selling it as he’d be one of many.
- Marketing genius.
- By the way, once you embrace “noise” and non cap-weights, why do you stop at value? Why not momentum or other anomalies?

# Trashing The Russell

- Rob argues that FI is not just value because it beats the Russell Value index.
- You mean a multiple factor (certainly somewhat data-mined) value bet that delves into a different universe of stocks and may be of entirely different tracking error beats one particular value index.
- Wow. I guess I'm wrong. Sorry.

# It Works Everywhere!!

- Rob repeatedly shows FI works everywhere (small, international, to choose countries, each industry, etc.).
- Value has already been shown to work for these (many authors over many years).
- FI is just value (have I mentioned that?)
- This does not stop him from “discovering” it works everywhere.

# Positives About The Product

- FI is value and I like value.
- FI tilts each stock continuously (incl. some style timing), uses multiple measures of value, and delves into small stocks. I like all that. Of course, most active value managers already do these things.
- It's a neat way to explain value to a layman.
- Now I fear Rob's takeaway from this talk will be: "Asness endorses FI".



# Conclusion

- FI is about a 5% (in USA) tracking error four factor quantitative value tilt. **It is active quant management circa 1992 sans momentum.**
- Ultimately it's practical attractiveness will come down to details of construction, and mainly what fee / tracking error it's sold at.
- Everything else is simply an appropriation and repackaging of others' work .

Source: AQR and Kenneth R. French Data Library. Portfolios from Kenneth R. French Data Library formed based on the market ( $R_m - R_f$ ), book-to-market (HML), size (SMB) and momentum (Mom); returns are excess of cash. Results are from a four factor regression model estimated following the methodology of Fama and French (1993) using data from 1968 to 2007. See Kenneth R. French Data Library for further details. These are not the returns of an actual portfolio AQR manages and are for illustrative purposes only. Past performance is not a guarantee of future performance.