Factor Investing an insider's perspective

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The Next Hour in One Slide

- Short personal history
- Factor investing: the successes of the past 50 years
- The shortcomings of the present times
- And how can it be successful for the next 50 years
- Q&A

N.B.: this talk will be

- Opinionated
- Occasionally poking gentle fun at Barra (and Axioma)
- But optimistic
- Not quantitative

Personal History

- Mathematician in the defunct Math Sciences Dept at IBM Research
- Came to finance late, primarily because of the non-viability of corporate research labs
- After a short stint at Axioma, past 13 years spent at HFs/Prop Trading firms
- Wrote a book, "Advanced Portfolio Management", which was well received, for factor models/MVO **consumers**
- Writing another: "The Elements of Quantitative Investing", for factor models/MVO **makers**
- The book contains enough original material for a few technical talks. Please read it and let me know (linktr.ee/paleologo)

Successes

1. Looking back: we live in factor models' world
2. Approximate application adoption curve:
   a. volatility estimation
   b. Risk premia ("alpha spanned")
   c. portfolio construction and "alpha orthogonal"
   d. performance attribution
3. Strategies
   a. 1990-present: equity stat arb and risk premia strategies
   b. 2000-present: L/S equities
   c. 2010- present: quantitative credit, commodities

Successes in Detail

- Mean-Variance is the dominant paradigm for portfolio construction and fits factor models like a glove
- Factor-based performance attribution has replaced Brinson performance attributions
- Most portfolio managers are factor-aware even in firms that were historically resistant to them
- Ecosystem: Barra -> {Axioma, Northfield, CAPiq, BBG} -> {Alphatheory, OmegaPoint, Arcana, Estimize/ExtractAlpha, Hedgineer}. Optimization has become just a technology

Challenges

1. Research and performance progress in factor models has been very slow
   a. Last sizable slew of innovations and performance improvement: AXUS2/USE4. Ins some cases, regression
   b. There are perverse incentive at work
   c. Despite product differentiation, one size doesn't fit all
   d. Some big bets do ("risk model machine", multi-asset models) do not seem to have panned out
2. Most institutional managers are probably happy with commercial models. Most hedge funds are unhappy with commercial models and roll their own.
   a. From experience, *some* of the methodological changes introduced by commercial vendors trail internal adoption by 5-10 years
   b. But largest source of unhappiness revolves around factor structure

Current Challenges from the Buy Side

1. There is also a perverse overreaction by HFs: an underestimation of the subtleties of developing and testing sound models. A "factor Dunning-Kruger effect"
2. Need for flexibility:
    a. Many, many different needs: (multi)asset classes, horizons, geographies, investment styles
    b. What could happen (or should happen): some provider offers good raw quality data, at a fraction of the price
3. Different problems that not fit neatly in Factor Model Offers
4. All of this contributes further to HF concentration. Monopsony is not a good thing for suppliers

Future?

1. Maybe create highly differentiated products from current ones: escape the factor zoo, escape epsilon-improvements that often aren't, try new techniques
2. Change criteria to evaluate models, to align them more with buy-side research
3. Crowding research is still broadly open
4. Data toolkit for funds that want to roll their own?

The End