Discussion

Is There Too Much Benchmarking in Asset Management?

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JHU Carey Finance Conference, June 2021

This Paper

- **Motivation**
  - Portfolio managers are compensated on relative terms
  - Performance relative to some "benchmark" portfolio

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    - Benchmarking arises endogenously (via optimal contract)
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- **Main result**
  - There is "too much benchmarking"
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- **Main result**
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  - Why? Investors who design the benchmark do not internalize the impact of the contract on the price of benchmarked assets
- Important topic in normative finance
- Carefully crafted paper $\Rightarrow$ Significant contribution

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- Fund investors $\underbrace{\Rightarrow}_{\text{optimal contract}}$ Fund managers, measure λ_F
  - Payoff: $r_x = x^\top (\tilde{D} - S) + \underbrace{x^\top \Delta + \varepsilon}_{\text{difference} \equiv \alpha}$
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- **Three differences**
  1. $x^\top \Delta$: systematic over-/under-performance
  2. ε: extra risk
  3. $x^\top \psi$: management cost
- **Remark**: critical that ψ is private

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- Manager's (linear) compensation

$$w = \hat{a} r_x + b\,(r_x - r_{\mathbf{b}}) + c = a r_x - b r_{\mathbf{b}} + c,$$

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- Optimal contract chooses
  1. a: sensitivity to absolute performance
  2. b: sensitivity to relative performance
  3. c: transfer
  4. θ: weights in the benchmark portfolio
- to maximize

$$U^F + U^M$$

- subject to IC

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$$x^D = \Sigma^{-1}\frac{\mu - S}{\gamma}$$

$$x^M = \Sigma^{-1}\frac{\mu - S + \boldsymbol{\Delta} - \boldsymbol{\psi}/\boldsymbol{a}}{\boldsymbol{a}\gamma} + \frac{\boldsymbol{b}\boldsymbol{\theta}}{\boldsymbol{a}}$$

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  - Markets clear

$$S = \mu - \gamma\Sigma\Lambda\bar{x} + \underbrace{\gamma\Sigma\Lambda\lambda_M\frac{b\theta}{a} + \Lambda\frac{\lambda_M}{a}\left(\Delta - \frac{\psi}{a}\right)}_{\text{contracting}}$$

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- **Positive results**
  - Benchmarking is optimal: $b > 0$
    - Holmstrom 79: use any signal to provide incentives
  - Weight θ_i is higher when $\Delta_i - \psi_i$ is high

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  - Setting welfare weights to 1, wlog with transfers or even without valuing dollars equally
  - Paper is too apologetic here

$$\frac{dW}{d\left(b\theta/a\right)} = \overbrace{\frac{\partial\left(U^F + U^M\right)}{\partial(b\theta/a)}}^{\text{private FOC}} + \overbrace{\left[\underbrace{\left(x_{-1}^F - x^M\right) + \left(x_{-1}^D - x^D\right)}_{=0}\right]^\top \frac{\partial S}{\partial(b\theta/a)}}^{\text{distributive pecuniary externality}}$$

$$+ \frac{\partial U^F}{\partial y}\frac{\partial y}{\partial S}\frac{\partial S}{\partial(b\theta/a)}$$

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    - Language from Davila/Korinek 18
    - Zero-sum, since there is a single trading period

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    - Zero-sum, since there is a single trading period
  - **Last term: "frictional/contracting pecuniary externality"**
    - Interaction between contracting and equilibrium pricing
    - Similar to collateral pecuniary externalities

Main Results

- Socially optimal contract features
  1. Less skin in the game: $a^{social} < a^{private}$
  2. Less benchmarking: $b^{social} < b^{private}$
  3. Lower prices, $S^{social} < S^{private}$
  4. Lower management costs, $\psi^\top x^M_{social} < \psi^\top x^M_{private}$
  5. Benchmark puts less weight on attractive assets

"Private agents are too aggressive"

Comments/Thoughts

1. The form of externality identified in this paper is clear
    - Ultimately, contracting features "decreasing returns", so planner wants to do less
    - However, my prior was that the direction of the externality could be *ambiguous*
        - In particular on prices
    - What if the benchmark portfolio has negative θ? Is this allowed?
    - Wouldn't the planner want to short less, increasing prices?
    - Is there a way to formalize this "decreasing returns" idea?

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2. I would have loved to see a worked out example; maybe with two assets
   - I didn't get that much intuition out of the (private and social) solutions for a, b, and θ
   - Additional comparative statics, analytical and/or numerical would help

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   - What if θ is given?
   - e.g., fund mandate (SP500, Russell 2000, etc.)
   - Is there a role for the market portfolio?

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    - Is there a role for the market portfolio?
4. Determinants of the optimal corrective regulation?
    - Sufficient statistics? How to measure relevant determinants?
    - Do we have any outstanding estimates?
    - Effects must be *proportional* to share of benchmarked funds
        - More important in less liquid/high price impact markets

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   - ...but demand effects may be too strong
   - Benchmarking risky assets should not change the price of all risky assets/ aggregate risk premium
   - It'd be great to work out a CRRA style problem $\Rightarrow$ not easy

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6. Introduce further asymmetries
   - Maybe risk aversion
   - Fund investors perhaps more (less) risk tolerant than direct investors
   - Potentially richer implications