“Unobserved Actions of Mutual Funds”

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Basic Idea

- Mutual funds periodically disclose fees, returns, and holdings, but many things that impact net returns are unobservable
  - Commissions, price impact, negative investor externalities, agency costs $\Rightarrow$ *hidden costs*
  - Skilled (short-term) trading, access to underpriced IPOs $\Rightarrow$ *hidden benefits*
- **“Return Gap”** is intended to measure the net benefit (or cost) of these “unobserved actions”
  - Potentially better signal-to-noise ratio than net returns

Calculating Return Gap

- $\text{Return Gap}_t^f = \underbrace{RF_t^f}_{\text{Realized Net Return}} - \Big(\underbrace{RH_t^f}_{\text{Estimated Buy and Hold Return}} - \underbrace{EXP_t^f}_{\text{Realized Expense Ratio}}\Big)$

- **Positive** when fund outperforms a portfolio of prior reported holdings with same expenses
- Essentially, buy and hold version of measure from Grinblatt and Titman (‘93)

Key Findings

- Average return gap is zero **(T2)** but fund-level return gaps are persistent **(T3)**
- Return gap predicts abnormal fund returns
  - Extreme negative return gaps predict negative abnormal returns **(T4)**; with back-testing, positive return gaps predict positive abnormal returns **(T5)**
  - Trading strategy based on return gap does at least as well as trading strategy based on expenses **(T6)**
  - Return gap helps predicts Carhart’s 4-factor alpha in multivariate regressions **(T11)**

Should You Read This Paper?

- **Yes,** I expect return gap will be widely used
  - *Full disclosure:* I'm using return gap as additional measure of fund performance in project on team-managed funds (with Massa and Zitzewitz)
- Morningstar's Director of Fund Research said return gap **"sounds pretty flawed"** because of its focus on short-term performance
  - Return gap persistence $\Rightarrow$ criticism is misplaced
- That said, I think return gap may tell us more about agency conflicts and less about skill

What’s Return Gap Good For?

- Authors take “consumer advocacy” view
  - Classic argument that investors should focus on low expense funds (Carhart ‘97)
  - Authors claim “return gap is more important in predicting abnormal returns [than] expenses” $\Rightarrow$ **investors should also focus on + return gap**
  - Unfortunately, return gap is data intensive and restricted to funds that invest in domestic equity
  - Moreover, incremental power of return gap to identify future winners is unclear

Does Return Gap Identify Future Winners?

- Studies typically find persistence among losers but not among winners
- Is their study different? **Yes and no**
  - Without back-testing, return gap predicts future losers (based on net returns) but not future winners
  - With back-testing, return gap predicts both future losers and future winners…
  - … but with back-testing, Mamayksy, Spiegel & Zhang (‘05) find existing measures also predict future winners
  - *When using back-testing, is return gap better than existing measures at predicting winners?*

Return Gap vs. 4-Factor Alpha

- Consider predicting Carhart's alpha (α_4) with deciles based on past return gap and past α_4

	Carhart's Alpha t+1		
Deciles	Decile 1	Decile 10	Source
Return Gap w/ Back Testing	-0.33 ***	0.21 *	*KSZ (2005) Table 5*
Carhart's Alpha w/ Back Testing	-0.31 ***	0.23 ***	*MSZ (2005) Table 5*

- Comparison not quite apples to apples, but it suggests need to consider double sorts, etc.

Return Gap More Valuable to Academics than Investors?

- Several papers already help predict winners
  – *For example:* Bollen & Busse (‘05), Busse & Irvine (‘06), Cohen, Coval & Pastor (‘05), Kacperczyk, Sialm & Zheng (‘05), Kacperczyk and Seru (‘06), Mamayksy, Spiegel & Zhang (‘05)
- Return gap is interesting (to me) because it sheds new light behind the scenes
  – Allows us to ask **how** and **why** some funds create value for shareholders and others destroy it
  – Table 12 is a good start but I’d like to see more…

Possible Extensions

- How do return gaps vary within and between mutual fund families?
  - Negative average return gap is consistent with poor governance or poor trade execution at family level
  - Mix of positive and negative return gaps within family is (potentially) consistent with cross subsidization
  - Positive average return gap is consistent with high-quality research at family level or lots of skill
- How much do investors drive return gaps?
  - Monthly inflow volatility and redemption fees would allow study of negative investor externalities (Edelen ‘99, Johnson ‘04)
- Link between return gap and governance?