# Hedge Fund Performance Persistence in Real-Time

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## Summary of the Paper

Studies document that mutual fund performance is insignificant in recent years

- Choi and Zhao (2021) replicate Carhart (1997): Insignificant persistence post Carhart's publication
- Riley (2021) replicates Kosowski et al. (2006): Mutual funds cannot pick stocks well enough to cover their costs post 2006

This paper examines whether the performance of hedge funds is persistent in recent years by replicating

- 1. Kosowski, Naik, and Teo (2007)
- 2. Jagannathan, Malakhov, and Novikov (2010)

Replications using hedge funds data are challenging

- Hedge funds can report returns to multiple database vendors
- Backfill bias and many other biases

- 1. Hedge funds with top Bayesian alphas continue to perform well
- 2. But the performance persistence has declined in recent years
- 3. Replicating the exercise on real-time data suggests that investors can identify superior funds

Overall, a nice paper!

- Investigates the hedge funds' performance persistence in a recent sample
- Clearly lays out challenges associated with analyzing hedge funds data

## Key Insights

- Funds with high Bayesian alphas and t-stats continue to do well
- But funds sorted on other alpha estimates do not exhibit persistence
- What makes Bayesian alphas so powerful?
- Bayesian alphas are more precise (Pastor and Stambaugh (2002))

#### My interpretation of why Bayesian alphas are special:

- ► Consider multivariate  $R_{it} = \alpha_i + \beta_i F_t + \epsilon_{it}$ ,  $\hat{\alpha}_i^{OLS}$ ,  $\hat{\beta}_i^{OLS}$  are unbiased, and they can estimated using returns of only stock *i*.
- ▶ But are  $\hat{\alpha}_{i}^{OLS}, \hat{\beta}_{i}^{OLS}$  are forecasting? Need not be because  $\hat{\alpha}_{i}^{WLS}, \hat{\beta}_{i}^{WLS}$  deliver better forecasts because they are more **efficient**
- ▶ Note that  $\hat{\alpha}_{i}^{WLS}, \hat{\beta}_{i}^{WLS}$  depend on other stock returns although  $\alpha_{i}$  and  $\beta_{i}$  do not depend on them
- Under appropriate prior specifications, Bayesian alphas are equivalent (closer) to WLS estimators

### Directions for future research

- The paper documents that the persistence has declined in recent years
- But this inference is based on sorts that rely solely on *t*-stats or  $\alpha$
- Groenborg, Lunde, Timmermann and Wermers (2021) pick superior mutual funds based on "model confidence sets" rather than on "t-sorts"
- Is it possible to identify top-performing hedge funds with consistent performance using the model confidence sets?
- Likewise, Giglio and Xiu (2021) uncover many top-performing hedge funds that are robust to FDRs
- Why Kosowski et al (2006) must still be the main method for picking superior hedge funds?

Is there a consensus or a systematic procedure for addressing

- Backfill biases
- To what extent fund-of-fund returns represent accurate returns earned by hedge fund investors?
- How informative is the style classification of KNR in the recent sample and going forward?
- For instance, hedge funds that use alternative data may be very different from the funds that use factor models on public data. But both are classified in the same bucket by KNR