What makes Chinese open-end fund managers stay put?

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Introduction

- Mutual fund industry: $7 trillion in 2000; $65 trillion by 2021 (42% equity funds)
- Chinese market: $3.85 trillion in 2022; $7.5 trillion by 2025 (FT, 2018)
- Also recent key conceptual shift when distinction between the fund manager and the fund that s/he serves (e.g., Bryant, 2012; Andrew et al., 2014; Wang and Ko, 2017)
  - Initially, a typical principal-agent problem (Jensen and Smith, 1985)
  - Recently, a fundamental determinant of the asset allocation of each specific fund (e.g., Grinblatt et al., 2020)
- In contrast to most other industries, the departure of a fund manager can have a profound effect on how the fund is managed, and how its characteristics will subsequently change (Clare et al., 2014)

What we do in this paper

We examine if, and to what extent,

(a) the prevailing market conditions,

(b) the manager's performance, and

(c) the fund's characteristics

induce a manager to leave the fund

Theoretical Underpinnings

- Are fund managers important for the characteristics of their fund?
- Is there any impact on the fund when their manager changes?

The importance of a fund manager for the characteristics of their fund (1/3)

- First, based on the well-established strand of literature, that examines empirically the survivability and attrition rates of funds

  (e.g., Gregoriou, 2006; Getmansky, 2012)

  - Factors that have been found to influence the mortality of funds include inflows, performance, liquidity constraints, asset under-management, lower skewness of returns, the alliance of firms during crises

  - However, all of these factors are, to varying degrees, directly determined by their fund manager's decisions

The importance of a fund manager for the characteristics of their fund (2/3)

- Second, based on the documenting the persistent returns that funds tend to produce and explicitly linking them to the behavior of fund managers (e.g. Stulz, 2007; Grinblatt et al., 2020)

  - Both short- and long-term persistence, indicates that fund managers trade based on specific norms and patterns of behavior; also manager types are reflected on fund strategies such as trend following and contrarian strategies

  - However, all of these norms and strategies are specific to the fund manager in charge of the fund

The importance of a fund manager for the characteristics of their fund (3/3)

- Third, based on the literature exploring the market timing and stock picking capabilities of fund managers

  (e.g. Baker, et al., 2010; Osinga et al., 2021)

  - Not necessarily true for Chinese fund managers (e.g. Kosowski et al., 2006); Yi and He, 2016)

  - However, abnormal (or otherwise) fund returns are directly due to fund managers' decisions

The impact of fund manager changes

- Surprisingly, limited literature - albeit rather recent
- Fund flows increase (decrease) after a manager changes and so is fund performance primarily for recently underperforming (overperforming) funds (e.g. Khorana, 1996; Chevalier and Ellison, 1999a; Dangl, et al., 2008; Kostovetsky and Warner, 2015)
- Therefore, performance (as inflows/outflows and excess returns) is directly affected by a fund manager changes

Hypotheses Development

- H1: The probability of a fund manager leaving a fund is higher during ‘up’ markets compared to ‘down’ markets
  - Due to the much broader and well-established literature on what affects managerial job changes and careers (since Inkson, 1995)

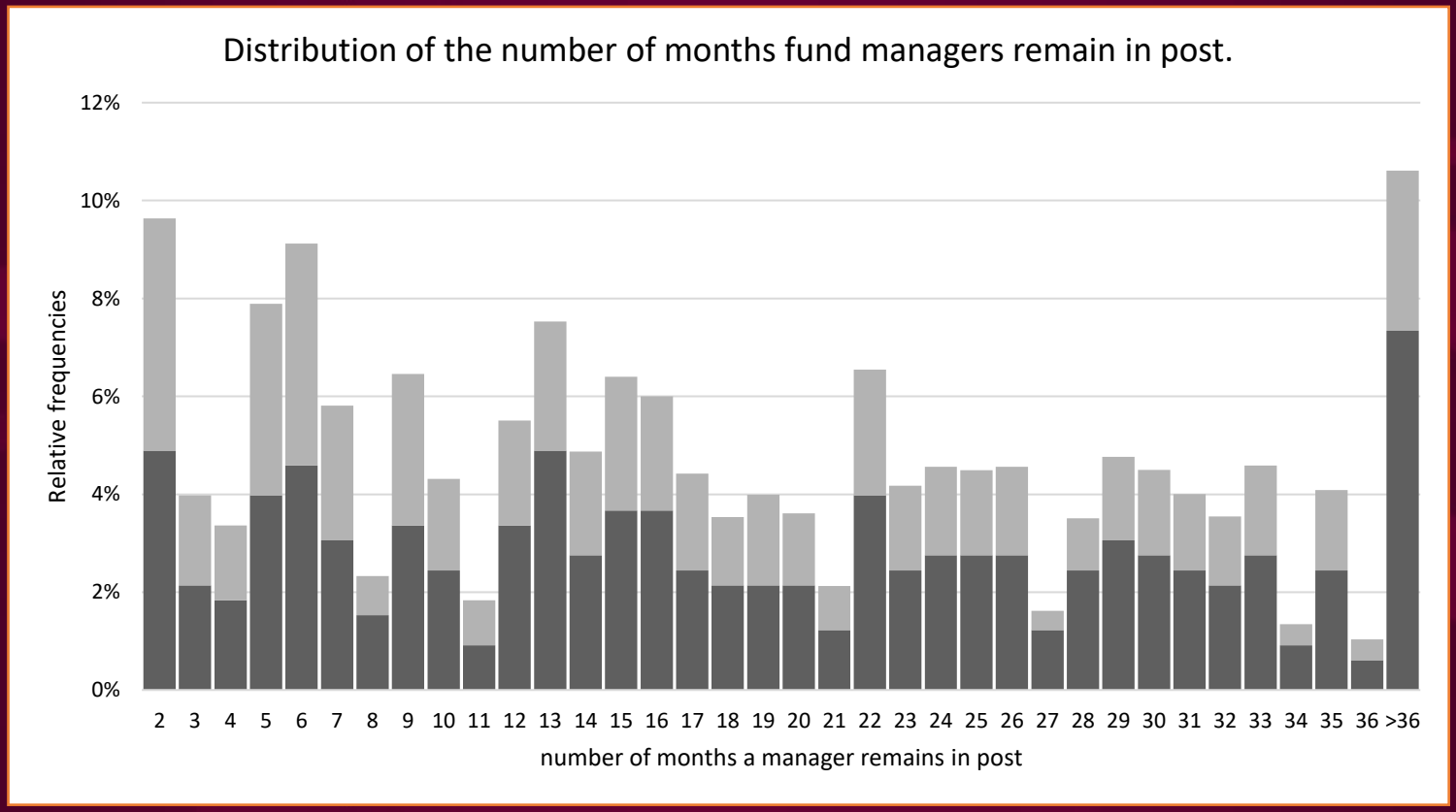
- H2: The probability of a fund manager leaving a fund is inversely proportional to the degree of abnormal returns and/or fund flow growth that they deliver
  - Due to the embryonic literature characterised by a lack of consensus that studies the link between fund managers performance and replacement (e.g. Chevalier and Ellison, 1999; Bryant, 2012)

- H3: The probability of a fund manager leaving a fund is inversely proportional to the risk of the fund’s profile
  - Due to the almost non-existent literature with Clare et al. (2014) an exception

Data

- The dataset for the funds and fund managers is drawn from the CSMAR China Funds Market Research Database
- The dataset with the factors is drawn from the China Asset Management Academy
- Our sample is for 257 fund managers that were registered for the period January 2006 and December 2017

Data


Distribution of the number of months fund managers remain in post.
12%
10%
8%
6%
4%
2%
0%
Relative frequencies
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 >36
number of months a manager remains in post

Methodology

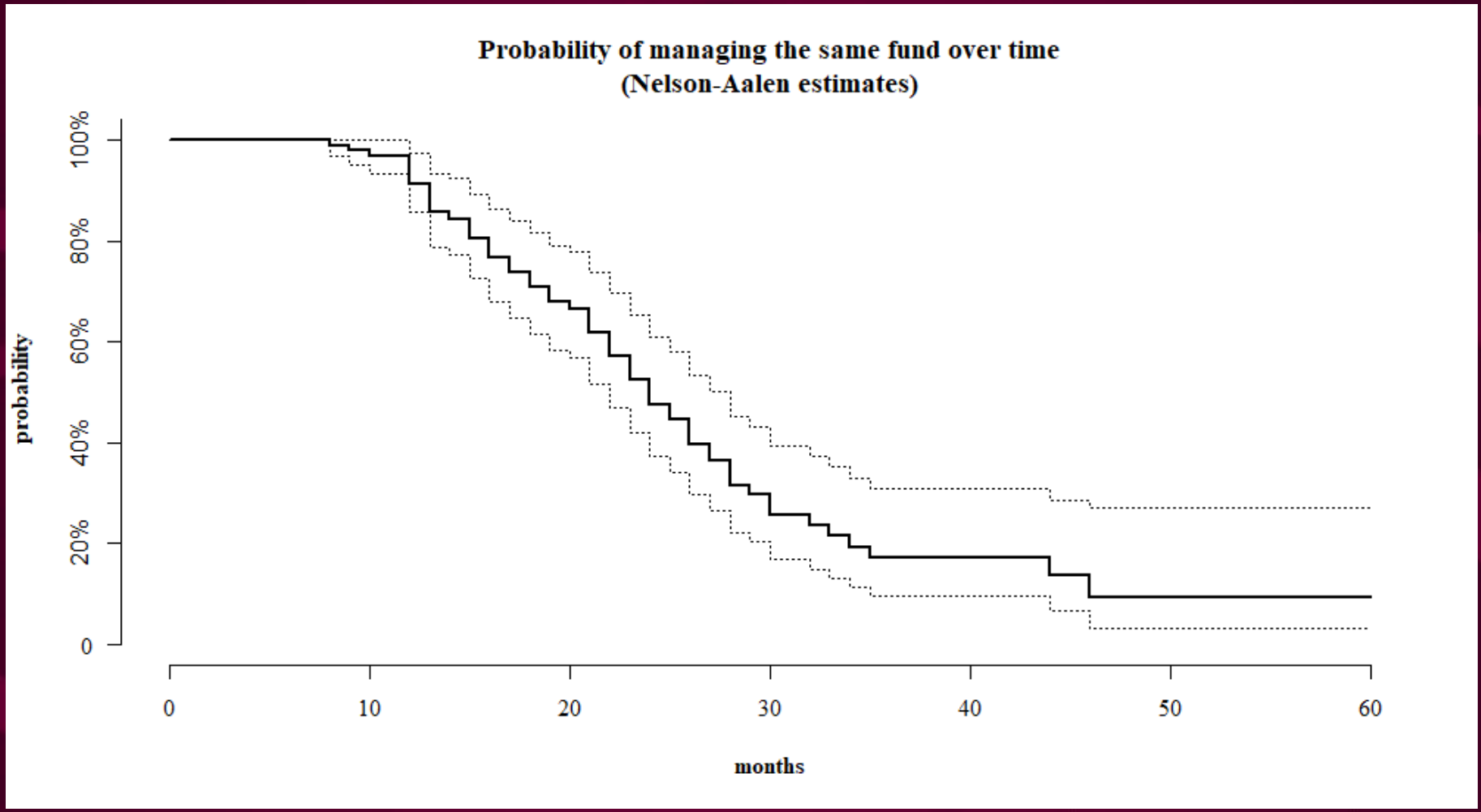
- We model the duration of a fund manager's service (i.e., working in the same fund) in months as a time-to-event counting process
  - $S(t) = S(T=t) = P(T>t)$
- Non-parametric survival analysis method with time varying variates
  - The Nelson-Aalen or NA estimator of S(t)
- Semi-parametric survival analysis method with time varying variates
  - The modified Cox model of Andersen and Gill (1982) for *S(t|time-varying variates)*

Main model

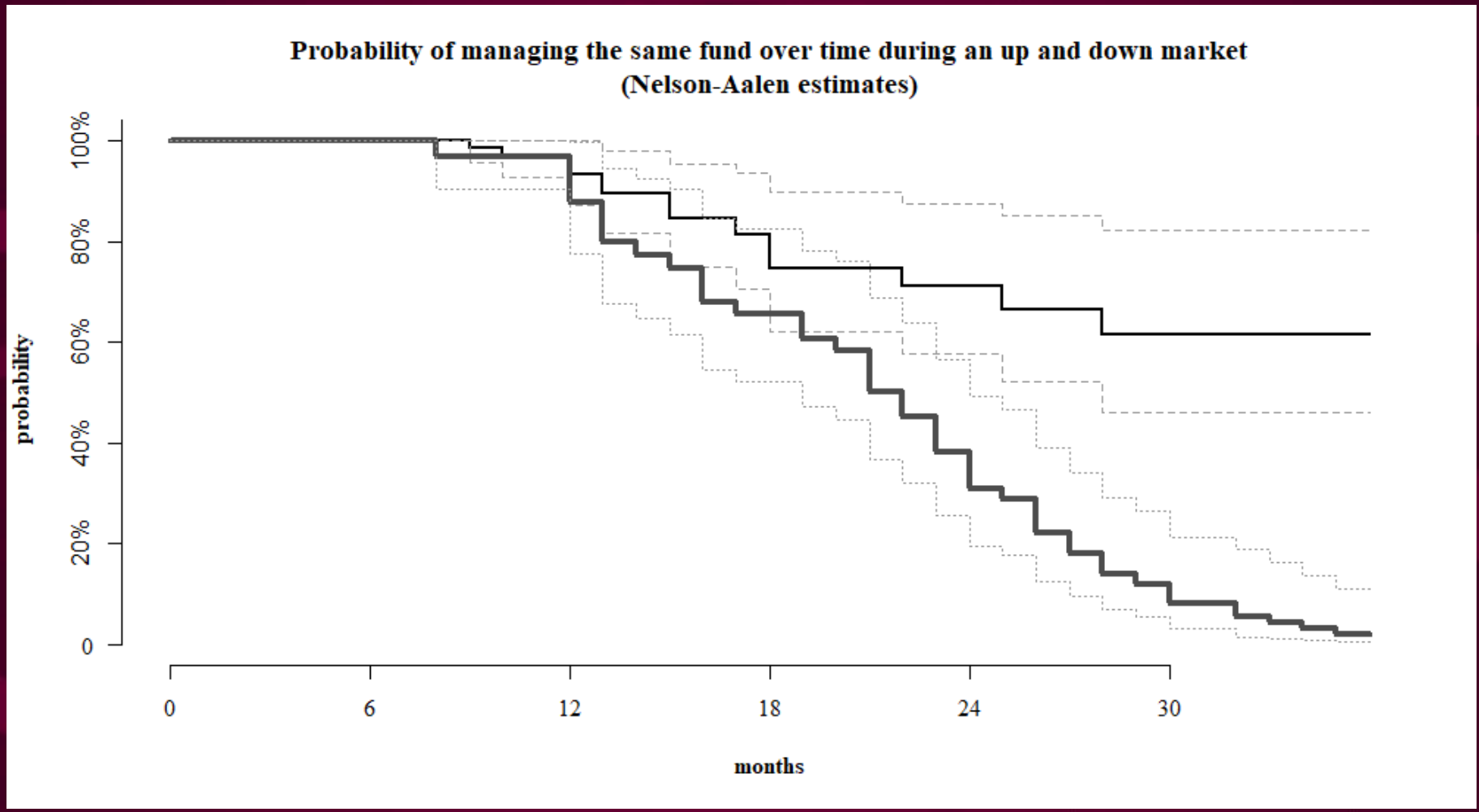
$$ln\frac{h(t|x_1, x_2, \dots)}{h_0(t)} = f($$

market conditions,
manager's performance,
fund risk profile
)

Results: non-parametric analysis



Results: non-parametric analysis



Results: semi-parametric analysis

Panel A	Coefficient Estimates				
	CAPM	*FF3*	*FF3C*	*FF5*	*FF5C*
Up-Market Dummy	4.12*** [1.41] 0.32	4.23*** [1.44] 0.33	4.00*** [1.39] 0.34	4.25*** [1.45] 0.34	4.00*** 1.39 0.34
Flows	0.2** [-1.59] 0.65	0.23** [-1.48] 0.72	0.23** [-1.49] 0.73	0.27 [-1.32] 0.77	0.31 [-1.16] 0.81
Alpha	0.97 [-0.03] 0.14	0.67** [-0.41] 0.17	0.71** [-0.34] 0.17	0.74* [-0.30] 0.17	0.67** [-0.39] 0.17
Beta MRP	0.66 [-0.42] 0.75	0.14*** [-1.97] 0.74	0.15*** [-1.90] 0.73	0.21*** [-1.54] 0.75	0.18** [-1.71] 0.76
Beta SMB	-	0.39* [-0.94] 0.53	0.46 [-0.78] 0.53	0.44* [-0.83] 0.48	0.26** [-1.36] 0.55
Beta HML	-	1.03 [0.03] 0.27	1.11 [0.10] 0.28	1.17 [0.15] 0.20	1.27 [0.24] 0.20
Beta MOM	-	-	0.64 [-0.45] 0.50	-	1.68*** [0.52] 0.19
Beta RMW	-	-	-	1.36 [0.31] 0.20	0.85 [-0.16] 0.15
Beta CMA	-	-	-	0.95 [-0.05] 0.15	0.67 [-0.40] 0.45
XP	0.99 [-0.01] 0.04	0.97 [-0.03] 0.04	0.97 [-0.03] 0.04	0.99 [-0.01] 0.04	0.98 [-0.02] 0.04
RMRP	0.79 [-0.24] 0.29	0.81 [-0.21] 0.29	0.82 [-0.20] 0.29	0.82 [-0.20] 0.29	0.86 [-0.15] 0.30

Results: non-parametric analysis

- It confirms H1 (the probability of a fund manager leaving a fund is higher during ‘up’ markets compared to ‘down’ markets)

Results: semi-parametric analysis

- It confirms H1 (the probability of a fund manager leaving a fund is higher during ‘up’ markets compared to ‘down’ markets)
- It confirms H2 (the probability of a fund manager leaving a fund is inversely proportional to the degree of abnormal returns and/or growth of the fund flows that they deliver)
- It confirms H3 (the probability of a fund manager leaving a fund is inversely proportional to the degree of risk that they assume)

Main findings

- Three periods: settling-in, stirring and temperate ones
- The 'up/down' markets finding implies idea that the business cycle determines the response of fund strategies (e.g. Auerbach and Gorodnichenko, 2012) is likely the result of fund manager changes
- Overperformers (due to confidence or compensation) do not seek new opportunities despite having superior information about market opportunities (Kellard et al., 2017); underperformers are not replaced by overperformers (Clare et al., 2014)
- Chinese fund managers are able to successfully appropriate the benefits from positive market movements and elude responsibility for the negative market movements

On Endogeneity

- The explanatory variables are not stochastic (hence strongly exogenous for all the parameters)
- Even if assumed stochastic, the correlation is not contemporaneous
- There is no inherent simultaneity issue (averages vs impulses)
- Solution the two-stage residual inclusion (2SRI) procedure for unmeasured confounding of Martinez-Camblor et al (2019)?

Thank you for your attention!

Questions?