

Is Mutual Fund Family Retirement Money Smart?



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Abstract

Using data on investments of fund family employees in their 401(k) plans, I show that employee flows predict fund performance up to two years. Moreover, employee flows lead flows of other investors, but not vice versa, further indicating that employee flows are smart. The predictive power of employee flows is stronger when fund family employees are located close to fund managers, pointing to employees exploiting their proximity to managers to learn about the managers' skill or effort. The results do not appear to be driven by ownership changes of portfolio managers themselves, family cross-subsidization efforts, plan design, or employee sophistication.

Research Questions

Are fund flows from mutual fund family employees smart?

- Mutual fund family employees receive signals about manager skill/effort
- Many fund family employees can interpret and act on these signals
- Employee Flows predict future fund performance
- Employee Flows lead flows of other investors

What are fund family employees smart about?

- Not: momentum/flows-induced price pressure, employee characteristics, family action
- Employee action: information about managerial skill/effort through proximity to fund managers

Can outside investors benefit from exploiting Employee Flows?

- Yes*

Data

- Hand-collected 401(k) plan holdings and plan characteristics: Form 5500
- Advisory structure of funds + Geographic location of fund managers: NSAR filings
- Fund manager ownership: Fund SAI; Investment employee details: Form ADV
- Others: CRSP Mutual Fund Database, SDC Platinum

Sample: Actively managed domestic equity funds in the 401(k) plans of a sample of fund families that account for approximately 80% of the total net assets in the U.S. equity universe of the CRSP mutual fund database over 2009-2016. The sample consists of a total of 34 fund families and 336 distinct funds yielding 1,761 fund-year observations.

	Mean	SD
Employee Flows [%]	17.1	82
Non-Employee Flows [%]	3.1	44
Aggregate Flows [%]	1.5	51
Employee Asset / Fund TNA [%]	2.0	4.6
12m Carhart Net Alpha [%]	-1.4	4.3
Observations (Plan x fund x years)	1761	

Notes: Carhart alpha is net alpha estimated from the 4 factor Carhart model using a rolling regression over a window of 36 months. Employee Flows (%) = Annual dollar flows due to employees / dollar size of the employees' investment in the fund at the end of the prior year. Non-Employee Flows (%) = Annual dollar flows due to investors other than employees / dollar size of their investment in the fund at the end of the prior year.

Employee Flows Predict Future Fund Alpha

Performance Horizon → Dep Var= Carhart Net Alpha	One-Year-Ahead				Two-Years-Ahead	
	(1)	(2)	(3)	(4)	(5)	(6)
Employee Flows	0.192*	0.233**	0.253**	0.240*	0.269**	0.420**
	(1.87)	(2.43)	(2.17)	(1.94)	(2.30)	(2.08)
Style × Year FE		Y				
Family × Year FE			Y			
Family × Year × Style FE				Y	Y	Y
Fund-Characteristics				Y	Y	Y
Observations	1761	1761	1744	1429	1429	1395
Adj-Rsq	0.001	0.071	0.110	0.156	0.186	0.177

Notes: The predictive regressions are estimated for all actively managed domestic equity funds which are included in the 401(k) plans of the sponsoring fund families. All Fund-Characteristics are lagged. Fund-Characteristics: past alpha, the natural logarithm of fund size, the natural logarithm of family size, the natural logarithm of (1+fund age), turnover, expense ratio, Return Gap, Active Share, R-Squared, Abnormal Turnover, and Tracking Error. Standard error is clustered by fund.

Employee Flows Are Smart About Internal Funds, but not About External Funds

Dep= 1yr Carhart Alpha	(1)	(2)	(3)	(4)	(5)	(6)
	Internal Funds			External Funds		
Employee Flows	0.218**	0.231**	0.282**	0.167	0.054	0.536
	(2.38)	(2.05)	(2.13)	(0.55)	(0.17)	(1.24)
Style × Year FE	Y			Y		
Family × Year FE		Y			Y	
Family × Year × Style FE			Y			Y
Fund-Characteristics	Y	Y	Y	Y	Y	Y
Observations	1213	1187	963	544	505	383
Adj-Rsq	0.106	0.162	0.238	0.116	0.107	0.157

Notes: Internal funds are funds that are solely advised by the fund family who sponsors the plan. External funds are funds that are advised or subadvised by fund families other than the plan sponsor.

Employee Flows Are Smart About Internal Funds In Single-Location Families, but not In Multi-Location Families

Dep=1yr Carhart Alpha	(1)	(2)	(3)	(4)	(5)	(6)
	Single-location			Multi-location		
Employee Flows	0.230**	0.245**	0.281**	0.284	0.040	-0.031
	(2.32)	(2.03)	(2.10)	(0.50)	(0.09)	(-0.03)
Style × Year FE	Y			Y		
Family × Year FE		Y			Y	
Family × Year × Style FE			Y			Y
Fund-Characteristics	Y	Y	Y	Y	Y	Y
Observations	999	977	806	203	210	157
Adj-Rsq	0.124	0.173	0.255	-0.038	0.064	0.111

Notes: The above regressions are estimated for internal funds. Single location families are the families whose portfolio managers of actively managed US equity funds work in single location.

Employee Flows Predict the Performance of Funds in Plans with Higher Ratio of Current to Former Employees

Dep=1yr Carhart Alpha	(1)	(2)	(3)	(4)	(5)	(6)
	Above-Median Ratio of Current to Former Employees			Below-Median Ratio of Current to Former Employees		
Employee Flows	0.237**	0.305**	0.301**	0.236	0.201	0.205
	(2.18)	(2.19)	(2.19)	(1.41)	(1.02)	(1.08)
Style × Year FE	Y			Y		
Family × Year FE		Y			Y	
Family × Year × Style FE			Y			Y
Fund-Characteristics	Y	Y	Y	Y	Y	Y
Observations	902	888	744	854	856	685
Adj-Rsq	0.144	0.133	0.203	0.108	0.132	0.187

Notes: Columns (1)-(3) report results for the sample of funds from the plans with above-median ratio of current to former employees whereas Columns (4)-(6) report results for the sample of funds from plans with below-median ratio of current to former employees.

Trading Strategy and Alternative Explanations

- Top Employee Flows portfolio
 - Outperforms bottom Employee Flows portfolio by 1.6% on 4-Factor Alpha
 - Outperforms EW portfolio of all funds offered by the sample fund families by 90bps
- Smartness of Employee Flows is not due to
 - Portfolio manager ownership
 - Family level cross-subsidization
 - Plan design
 - Financial sophistication of employees

Conclusion

- Employee Flows – flows in retirement plans of fund families – are smart
- Predictability is robust to alternative definitions of employee flows and fund performance
- Employees exploit their proximity to learn about manager skill