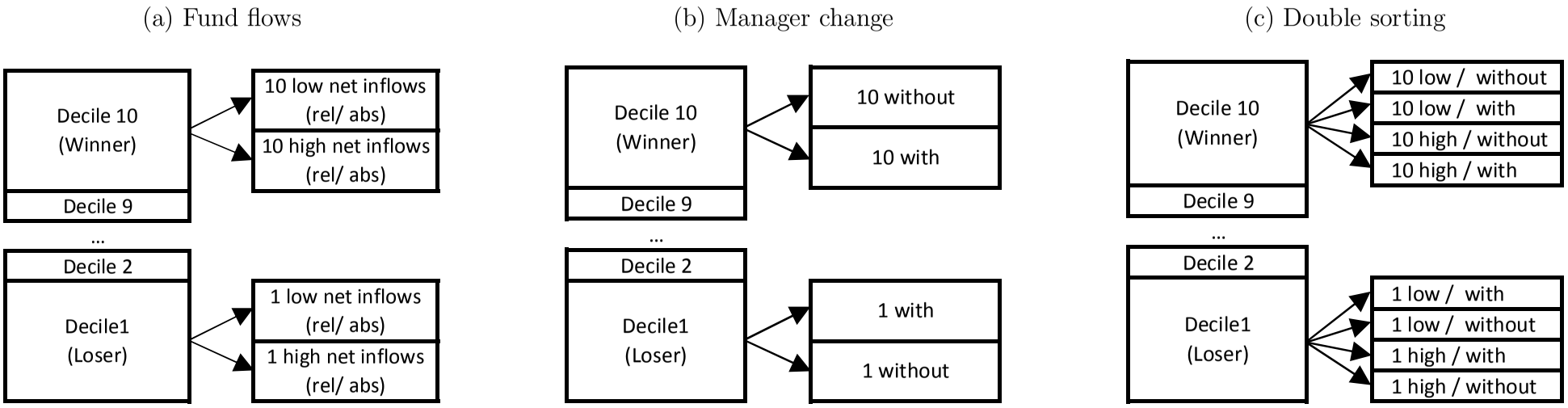

Figure 1: This figure presents the methodology we apply to construct the subgroup portfolios. Funds are first sorted into deciles based on their performance in the formation period. Then, the winner (decile 10) and loser (decile 1) funds are further divided into: (a) a low-net-inflow (high-net-inflow) subgroup if the net inflows in the formation period are lower (higher) than the median net inflows of the decile to which the funds belong (we experimented with both absolute net inflows and relative net inflows, but, in the presentation of our results, we concentrate on absolute flows); (b) a without (with) manager-change subgroup if the manager remained the same (changed) during the formation period; and (c) into four subgroups combining the criteria in (a) and (b) in a double sorting mechanism.

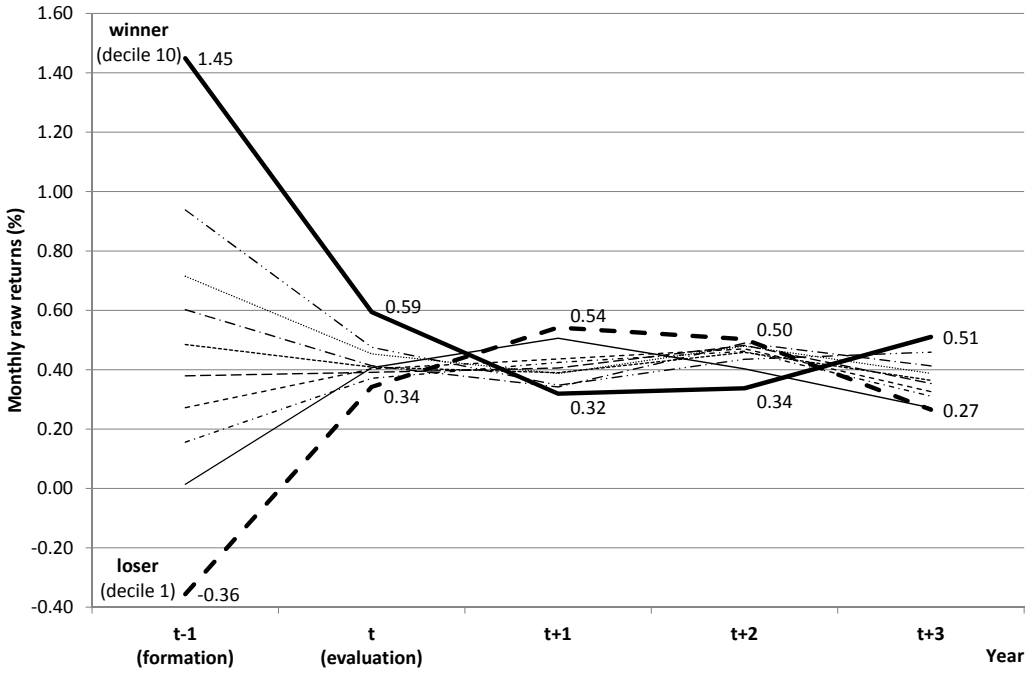

Figure 2: This figure presents the average monthly raw returns in percent per month of the decile portfolios relative to the evaluation year (t). Portfolios are formed based on previous-year Bayesian four-factor alphas.

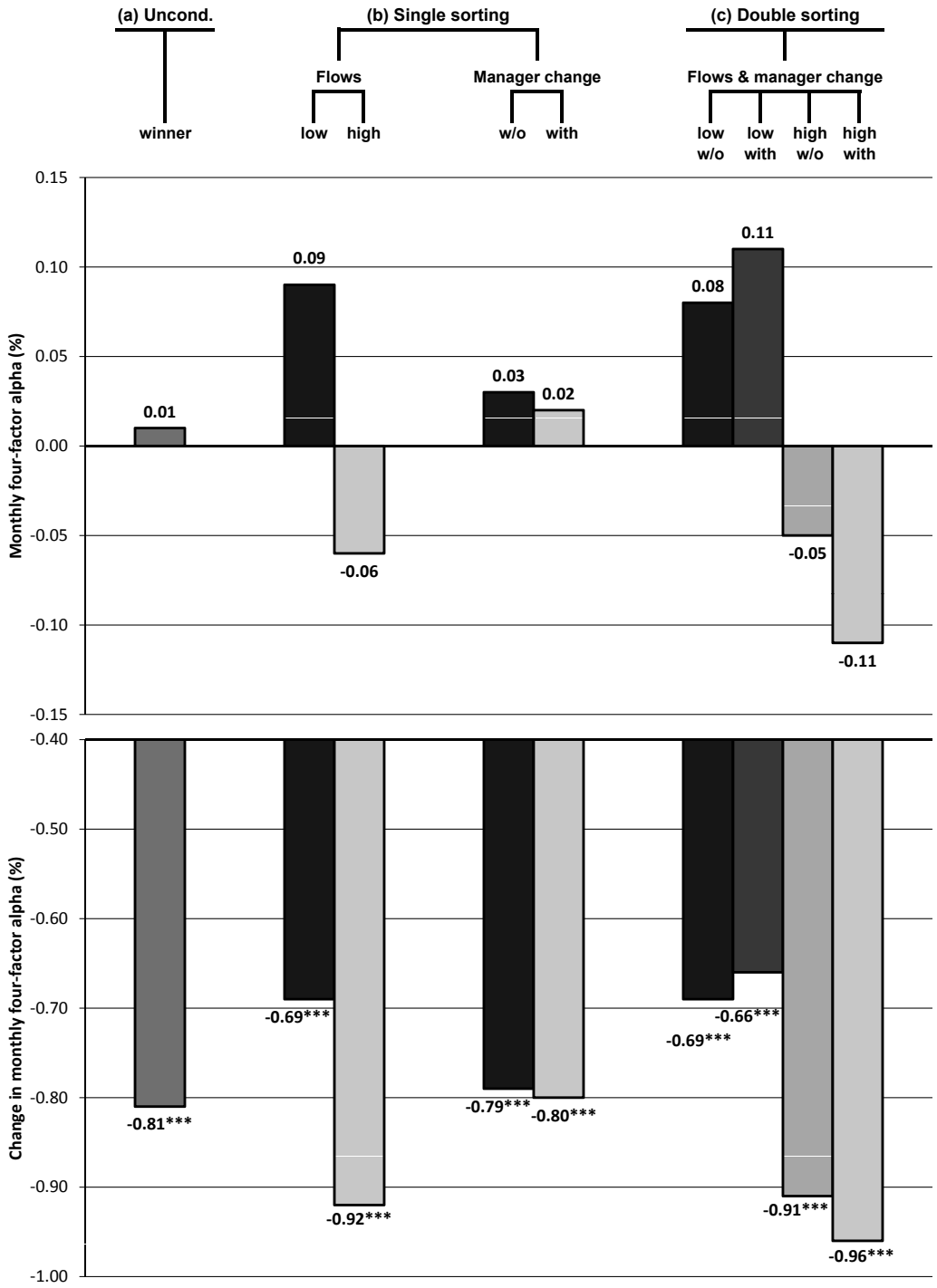

Figure 3: This figure presents monthly four-factor alphas in percent per month for winner funds and winner-fund subgroups based on both a single sorting and a double sorting on absolute fund flows and / or manager change. The top panel presents the level of performance (four-factor alpha) in the evaluation period and the bottom panel presents the change in performance between the formation and evaluation periods (Δ alpha). Funds are assigned to the high-net-inflow (high) or low-net-inflow (low) subgroup based on whether their net inflows during the formation period are higher or lower than the median net inflows of all other funds in the same decile. Funds are assigned to the manager-change (with) or no-manager-change (without) subgroup based on whether their fund manager changed during the formation period. Portfolios are formed based on previous-year Bayesian four-factor alphas. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

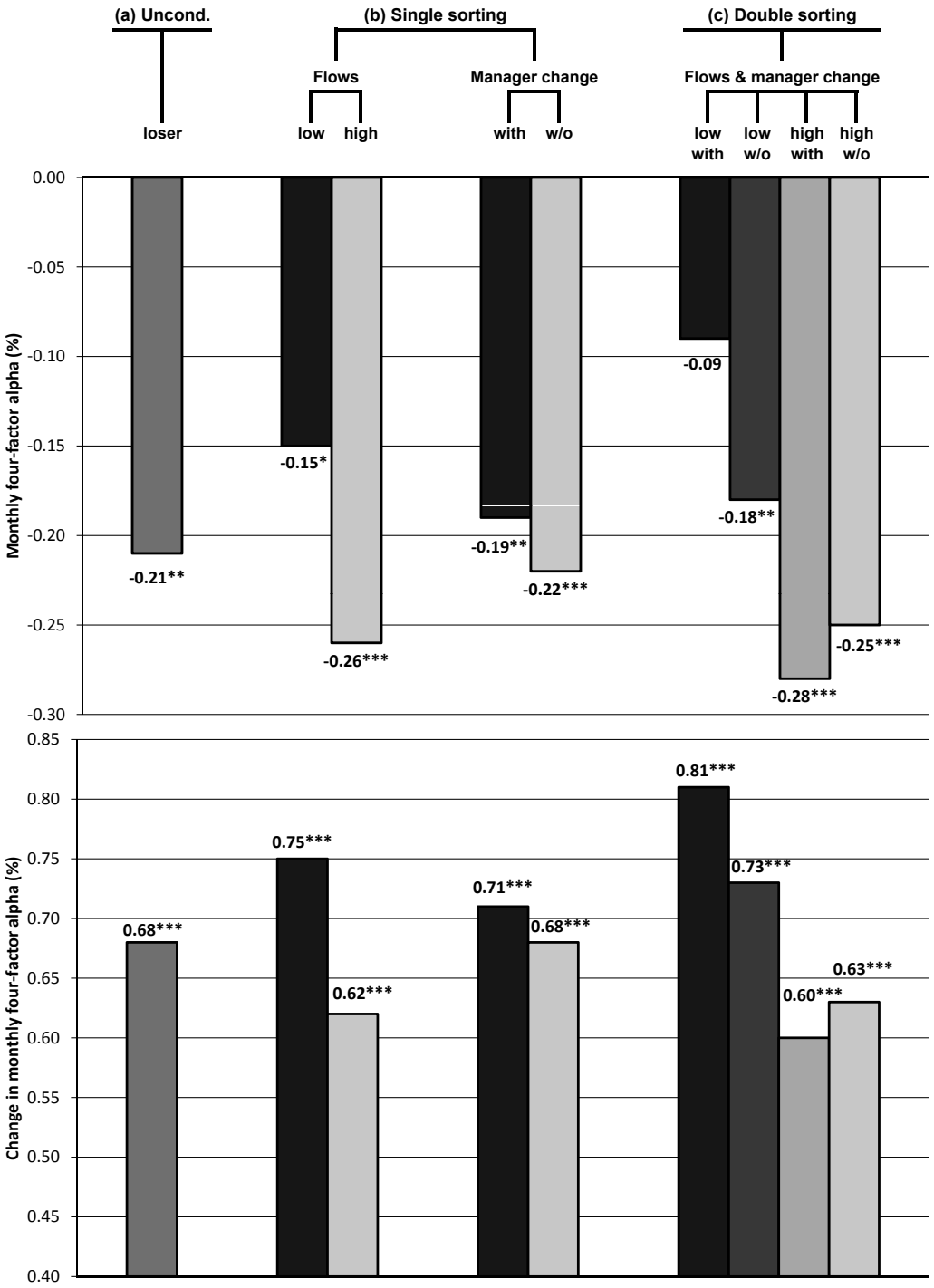

Figure 4: This figure presents monthly four-factor alphas in percent per month for loser funds and loser-fund subgroups based on both a single sorting and a double sorting on absolute fund flows and / or manager change. See the note to Figure 3 for more explanation.

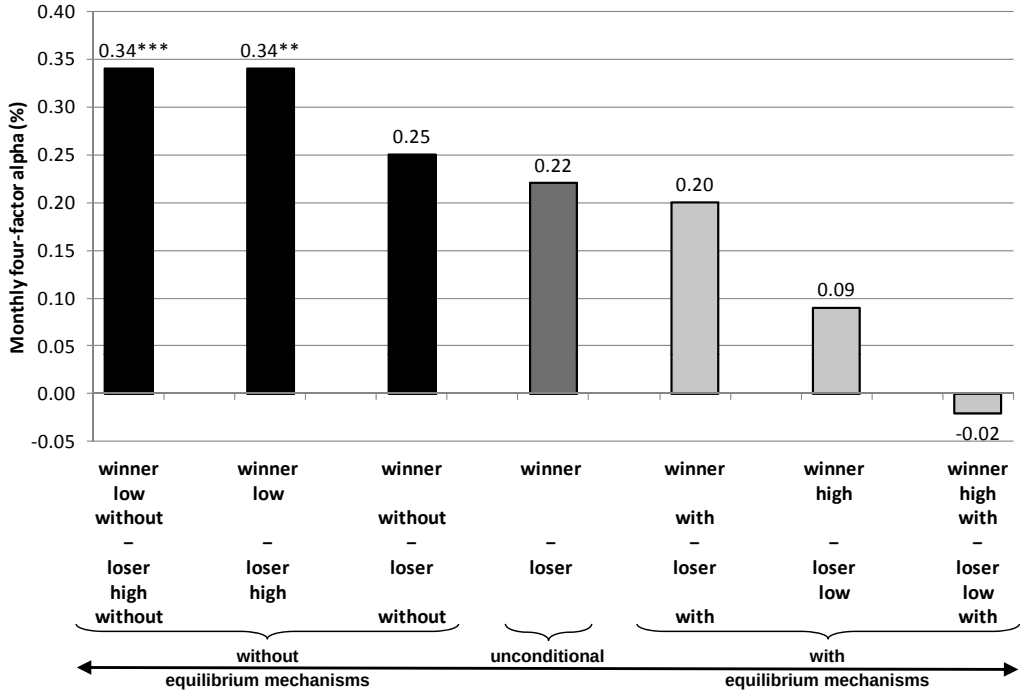

Figure 5: This figure presents monthly four-factor alphas in percentage points per month in the evaluation period for the winner-minus-loser spread portfolio based on both a single sorting and a double sorting on absolute fund flows and / or manager change. See the note to Figure 3 for more explanation.

Table I: Characteristics of the funds in the sample

This table presents the characteristics of the sample of funds for subperiods and for the whole period from 1992 to 2011. We restrict our sample to funds that have at least 12 months of available return data and information on the variable "mgr_date" in the CRSP database (see Appendix). Row (1) reports the number of months in the relevant period; row (2) reports monthly (arithmetic) average raw returns in excess of the rate on the risk-free asset in percent; row (3) reports the average portfolio turnover in percent; row (4) reports average fees in percent; row (5) reports the average age of the funds in years; row (6) reports the average fund size in million USD; row (7) reports monthly average absolute net inflows in million USD; row (8) reports the number of funds in existence; and row (9) reports the number of manager changes that occurred.

	Subperiods				Whole period
	1992–2000	2001–2003	2004–2007	2008–2011	
(1) # Months	108	36	48	48	240
(2) Raw returns (%)	0.82	-0.29	0.52	0.12	0.36
(3) Turnover (%)	105.17	136.15	95.64	92.42	104.42
(4) Annual fees (%)	1.45	1.51	1.39	1.36	1.42
(5) Fund age (years)	9.74	9.39	11.03	11.97	10.65
(6) Fund size (mill. USD)	753.68	754.38	1095.53	899.34	875.48
(7) Net inflows (mill. USD)	5.13	1.35	0.88	1.94	2.57
(8) # Funds	3,194	3,374	3,870	4,850	6,207
(9) # Man. ch.	3,173	1,517	1,799	1,430	7,919

Table II: Characteristics of winner funds and winner-fund subgroups

This table presents the characteristics of winner funds, winner-fund subgroups and the resulting spread portfolios based on independent sorts on absolute fund flows and manager change. See the note to Figure 1 for more explanation on the portfolio formation. Panel (a) reports average absolute net inflows in the formation period in million USD; panel (b) reports the fraction of funds experiencing a manager change during the formation period; panel (c) reports the average fund size in the evaluation period in million USD; and panel (d) reports the average fund size in the formation period in million USD. Within each panel, the first two rows and columns report values conditional on net inflows and manager change, respectively. The third row and column report spreads between the subgroups conditional on net inflows and manager changes, respectively. The fourth row and column report unconditional values, i. e., not conditioned on net inflows or manager changes, respectively. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Net inflows	Manager change			
	Without	With	Without − With	All
(a) Net inflows in formation period (flows_{t-1}, in million USD)				
Low	−5.0	−8.4	3.4***	−5.6
High	23.4	18.6	4.9***	22.6
Low − High	−28.4***	−27.0***	−23.6***	−28.2***
All	9.5	5.4	3.6***	8.5
(b) Manager changes in formation period (mgr_ch_{t-1}, in percentage points)				
Low	0	100	–	17
High	0	100	–	17
Low − High	–	–	–	–
All	0	100	–	17
(c) Fund size in evaluation period (TNA_t, in million USD)				
Low	657.6	1,016.1	−358.5***	715.8
High	1,542.1	936.2	605.9***	1,438.6
Low − High	−884.6***	79.9	−278.7***	−722.9
All	1,050.2	966.8	83.3*	1,037.0
(d) Fund size in formation period (TNA_{t-1}, in million USD)				
Low	622.7	947.0	−324.3***	675.0
High	1,055.8	590.0	465.9***	976.4
Low − High	−433.1***	357.1***	32.6	−301.4***
All	801.0	756.9	44.2	794.0

Table III: Alphas of winner funds and winner-fund subgroups

This table presents monthly four-factor alphas in percent of winner funds, winner-fund subgroups and the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. See the note to Figure 1 for more explanation on the portfolio formation and the note to Table II for more explanation on row and column definitions. Panel (a) reports average four-factor alphas in the evaluation period; panel (b) reports average four-factor alphas in the formation period; and panel (c) reports the change in four-factor alphas between the formation and evaluation periods. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

Net inflows	Manager change			
	Without	With	Without − With	All
(a) Four-factor alphas in evaluation period (α_t)				
Low	0.08	0.11	−0.03	0.09
High	−0.05	−0.11	0.06	−0.06
Low − High	0.13**	0.22**	0.19**	0.15***
All	0.03	0.02	0.01	0.01
(b) Four-factor alphas in formation period (α_{t-1})				
Low	0.77***	0.77***	0.00	0.77***
High	0.86***	0.86***	0.00	0.86***
Low − High	−0.09	−0.09	−0.08	−0.09
All	0.82***	0.82***	0.00	0.82***
(c) Change in four-factor alphas ($\Delta\alpha_t = \alpha_t - \alpha_{t-1}$)				
Low	−0.69***	−0.66***	–	−0.69***
High	−0.91***	−0.96***	–	−0.92***
Low − High	–	–	–	–
All	−0.79***	−0.80***	–	−0.81***

Table IV: Raw returns of winner funds and winner-fund subgroups

This table presents monthly raw returns in percent of winner funds, winner-fund subgroups and the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. See the note to Figure 1 for more explanation on the portfolio formation and the note to Table II for more explanation on row and column definitions. Panel (a) reports average raw returns in the evaluation period; panel (b) reports average raw returns in the formation period; and panel (c) reports the change in raw returns between the formation and evaluation periods. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Net inflows	Manager change			
	Without	With	Without − With	All
(a) Raw returns in evaluation period (r_t)				
Low	0.65	0.72	−0.07	0.66
High	0.54	0.50	0.03	0.53
Low − High	0.11*	0.21**	0.15	0.13**
All	0.60	0.62	−0.01	0.59
(b) Raw returns in formation period (r_{t-1})				
Low	1.27	1.23	0.04	1.26
High	1.63	1.66	−0.03	1.63
Low − High	−0.35	−0.43	−0.39	−0.37
All	1.46	1.43	0.03	1.45
(c) Change in raw returns ($\Delta r_t = r_t - r_{t-1}$)				
Low	−0.62	−0.51	–	−0.60
High	−1.09**	−1.16**	–	−1.10**
Low − High	–	–	–	–
All	−0.86*	−0.81	–	−0.85*

Table V: Characteristics of loser funds and loser-fund subgroups

This table presents the characteristics of loser funds, loser-fund subgroups and the resulting spread portfolios based on independent sorts on absolute fund flows and manager change. See the note to Table II for more explanation.

Net inflows	Manager change			
	With	Without	With − Without	All
(a) Net inflows in formation period ($flows_{t-1}$, in million USD)				
Low	−13.2	−12.2	−1.0	−12.4
High	6.9	7.9	−1.0	7.8
Low − High	−20.1***	−20.1***	−21.1***	−20.2***
All	−4.5	−1.8	−2.7***	−2.3
(b) Manager changes in formation period (mgr_ch_{t-1}, in percentage points)				
Low	100	0	–	22
High	100	0	–	16
Low − High	–	–	–	–
All	100	0	–	19
(c) Fund size in evaluation period (TNA_t, in million USD)				
Low	554.3	724.1	−169.8***	689.3
High	430.9	717.7	−286.8***	672.9
Low − High	123.4***	6.4	−163.4***	16.4
All	493.6	696.2	−202.7***	681.0
(d) Fund size in formation period (TNA_{t-1}, in million USD)				
Low	688.6	861.3	−172.8***	826.1
High	374.1	612.0	−238.0***	575.4
Low − High	314.5***	249.3***	76.5**	250.7***
All	547.2	712.1	−164.9***	700.4

Table VI: Alphas of loser funds and loser-fund subgroups

This table presents monthly four-factor alphas in percent of loser funds, loser-fund subgroups and the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. See the note to Table III for more explanation.

Net inflows	Manager change			
	With	Without	With − Without	All
(a) Four-factor alphas in evaluation period (α_t)				
Low	−0.09	−0.18**	0.08	−0.15*
High	−0.28***	−0.25***	−0.03	−0.26***
Low − High	0.19**	0.08*	0.16**	0.10**
All	−0.19**	−0.22***	0.03	−0.21**
(b) Four-factor alphas in formation period (α_{t-1})				
Low	−0.90***	−0.91***	0.00	−0.91***
High	−0.88***	−0.88***	0.01	−0.88***
Low − High	−0.03	−0.02	−0.02	−0.03
All	−0.89***	−0.90***	0.01	−0.89
(c) Change in four-factor alphas ($\Delta\alpha_t = \alpha_t - \alpha_{t-1}$)				
Low	0.81***	0.73***	–	0.75***
High	0.60***	0.63***	–	0.62***
Low − High	–	–	–	–
All	0.71***	0.68***	–	0.68***

Table VII: Raw returns of loser funds and loser-fund subgroups

This table presents monthly raw returns in percent of loser funds, loser-fund subgroups and the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. See the note to Table IV for more explanation.

Net inflows	Manager change			
	With	Without	With − Without	All
(a) Raw returns in evaluation period (r_t)				
Low	0.49	0.37	0.12**	0.40
High	0.28	0.29	−0.01	0.29
Low − High	0.21***	0.08	0.20***	0.11**
All	0.39	0.32	0.07*	0.34
(b) Raw returns in formation period (r_{t-1})				
Low	−0.35	−0.46	0.11	−0.44
High	−0.28	−0.27	−0.01	−0.27
Low − High	−0.07	−0.19	−0.08	−0.18
All	−0.33	−0.38	0.05	−0.36
(c) Change in raw returns ($\Delta r_t = r_t - r_{t-1}$)				
Low	0.84*	0.83*	–	0.84*
High	0.56	0.56	–	0.56
Low − High	–	–	–	–
All	0.71	0.69	–	0.70

Table VIII: Alphas of winner-minus-loser spread portfolios

This table presents monthly four-factor alphas in percent of the winner- and loser-fund subgroups and the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. Panel (a) reports details on the portfolio formation and panel (b) reports four-factor alphas. See the note to Figure 1 for more explanation on the portfolio formation. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

	Without equilibrium mech.			Uncond.	With equilibrium mech.		
	Neither	No flows	No manager change	–	Manager ch. only	Flows only	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(a) Portfolio formation							
Winner funds							
Inflows	Low	Low	–	–	–	High	High
Manager ch.	Without	–	Without	–	With	–	With
Loser funds							
Inflows	High	High	–	–	–	Low	Low
Manager ch.	Without	–	Without	–	With	–	With
(b) Four-factor alphas in evaluation period (α_t)							
Winner	0.08	0.09	0.03	0.01	0.02	−0.06	−0.11
Loser	-0.25^{***}	-0.26^{**}	-0.22^{***}	-0.21^{**}	-0.19^{**}	-0.15^{*}	−0.09
Winner − loser	0.34^{***}	0.34^{**}	0.25	0.22	0.20	0.09	−0.02

Table IX: Peer-group-adjusted returns of winner- and loser-fund subgroups

This table presents peer-group-adjusted returns in percent per month of winner and loser funds and the winner- and loser-fund subgroups as well as the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. Peer-group-adjusted returns are defined as the difference between fund i's returns and the average returns of all peer-group funds P with the same fund style. The following style groups exist in our data set (all U. S. domestic equities): cap-based funds large-cap; cap-based funds mid-cap; cap-based funds small-cap; style funds growth; style funds growth and income; style funds income; sector funds financial; sector funds health; sector funds natural resources; sector funds technology; sector funds utilities; sector funds other; and other. See the note to Figure 1 for more explanation on the portfolio formation and the note to Table II for more explanation on row and column definitions. Panel (a) reports the results for winner funds and panel (b) reports results for loser funds. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively.

(a) Winner funds: Peer-group adjusted returns ($r_{i,t} - r_{P,t}$)

Net inflows	Manager change			
	Without	With	Without − With	All
Low	0.16	0.09	0.06	0.14
High	0.06	0.06	−0.01	0.06
Low − High	0.10*	0.03	0.10*	0.09**
All	0.12	0.08	0.04	0.10

(b) Loser funds: Peer-group adjusted returns ($r_{i,t} - r_{P,t}$)

Net inflows	Manager change			
	With	Without	With − Without	All
Low	0.04	−0.11	0.15***	−0.07
High	−0.15	−0.14	−0.01	−0.15
Low − High	0.19***	0.03	0.18***	0.07**
All	−0.00	−0.13	0.08**	−0.11

Table X: Alphas of winner- and loser-fund subgroups based on a ranking including the active peer benchmark (APB) factor

This table presents monthly four-factor alphas in percent in the evaluation period of winner and loser funds and the winner- and loser-fund subgroups as well as the resulting spread portfolios (in percentage points) based on independent sorts on absolute fund flows and manager change. For ranking funds into decile portfolios, the four-factor model (Carhart, 1997) has been augmented by an active peer benchmark (APB) factor in order to control for the fact that estimation errors are potentially not independently distributed in the cross section of funds, as suggested by Hunter et al. (2014). See the note to Figure 1 for more explanation on the portfolio formation and the note to Tables II and V for more explanation on row and column definitions. Panel (a) reports the results for winner funds and winner-fund subgroups and panel (b) reports the results for loser funds and loser-fund subgroups. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

(a) Winner funds: Four-factor alphas in evaluation period (α_t)

Net inflows	Manager change			
	Without	With	Without − With	All
Low	0.13	0.23^{*}	−0.10	0.14
High	−0.04	−0.06	0.01	−0.05
Low − High	0.17^{**}	0.28^{**}	0.18^{*}	0.19^{**}
All	0.05	0.09	−0.04	0.05

(b) Loser funds: Four-factor alphas in evaluation period (α_t)

Net inflows	Manager change			
	With	Without	With − Without	All
Low	−0.07	-0.16^{*}	0.09	−0.14
High	-0.29^{***}	-0.24^{***}	−0.05	-0.25^{***}
Low − High	0.22^{**}	0.08^{*}	0.17^{***}	0.11^{***}
All	-0.17^{**}	-0.21^{**}	0.04	-0.20^{**}

Table XI: Alphas of characteristics-matched sub-samples of winner-fund subgroups

This table presents monthly four-factor alphas of spread portfolios of the characteristics-matched sub-samples of winner-fund subgroups (in percentage points) based on independent sorts on absolute fund flows and manager change. See the note to Figure 1 for more explanation on the portfolio formation. The first column reports the number of funds in the respective characteristics-matched sub-sample. Note that the number of observations of the sub-samples adds up to more than the total number of funds in our sample (6,207) because some funds appear in different sub-samples over their lifetime. The second column reports the change in four-factor alphas between the formation and evaluation periods. The third and fourth columns report spreads between the subgroups conditional on net inflows and manager changes, respectively. The fifth column reports spreads between the subgroups conditional on net inflows and manager changes simultaneously. Panel (a) reports the results for large (i. e., above median fund TNA) vs. small funds; panel (b) reports the results for old (i. e., fund age above median) vs. young funds; panel (c) reports the results for funds with different investment styles; panel (d) reports the results for funds with high (i. e., above median) vs. low distribution fees; panel (e) reports the results for large (i. e., above median fund family TNA) vs. small fund families; panel (f) reports the results for retail vs. institutional funds; and panel (g) reports the results for the full sample for comparison. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

		Persistence	Single sorting		Double sort.
	Number of obs.	$\Delta\alpha_t$	Low − High	Without − With	Low w/o − High with
(a) Fund size					
Large funds	3,466	-0.75^{***}	0.06	-0.02	0.02
Small funds	5,371	-0.72^{***}	0.06	0.11	0.15
(b) Fund age					
Old funds	3,858	-0.73^{***}	0.10^{*}	-0.03	0.04
Young funds	5,221	-0.83^{***}	0.19^{***}	0.06	0.35^{***}
(c) Investment style					
Large- and mid-cap	579	-0.93^{***}	0.07	0.21	0.23
Small-cap	898	-0.86^{***}	0.20^{**}	0.37^{***}	0.43^{***}
Growth & Inc. and Inc.	1,357	-0.36^{***}	0.06	0.01	0.08
Growth	2,384	-0.70^{***}	0.02	0.04	0.10
All exc. sector and other	5,619	-0.76^{***}	0.07^{*}	0.09^{*}	0.14^{*}
(d) Size of distribution fees					
High distribution fee	3,853	-0.79^{***}	0.19^{***}	-0.06	0.20^{**}
Low distribution fee	2,994	-0.81^{***}	0.18^{***}	0.02	0.17
(e) Size of fund family					
Large fund families	4,055	-0.86^{***}	0.11^{*}	-0.04	0.04
Small fund families	3,337	-0.78^{***}	0.15^{**}	0.03	0.19^{**}
(f) Investor type					
Retail	4,037	-0.81^{***}	0.20^{***}	-0.02	0.17^{*}
Institutional	2,771	-0.71^{***}	-0.02	0.11	0.19
(g) Full sample (for comparison)					
All	6,207	-0.81^{***}	0.15^{***}	0.01	0.19^{**}

Table XII: Alphas of characteristics-matched sub-samples of loser-fund subgroups

This table presents monthly four-factor alphas of spread portfolios of the characteristics-matched sub-samples of loser-fund subgroups (in percentage points) based on independent sorts on absolute fund flows and manager change. See the note to Figure 1 for more explanation on the portfolio formation and the note to Table XI for more explanation on column and row definitions. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

		Persistence	Single sorting		Double sort.
	Number of obs.	$\Delta\alpha_t$	Low − High	Without − With	Low w/o − High with
(a) Fund size					
Large funds	3,466	0.63***	0.09	0.04	0.13
Small funds	5,371	0.75***	0.17***	0.08	0.17*
(b) Fund age					
Old funds	3,858	0.68***	0.18***	0.14**	0.27***
Young funds	5,221	0.66***	0.08	−0.09	0.01
(c) Investment style					
Large- and mid-cap	579	0.59***	0.01	0.15	0.26**
Small-cap	898	0.70***	0.14**	0.01	0.19
Growth & Inc. and Inc.	1,357	0.44***	−0.03	−0.00	0.01
Growth	2,384	0.62***	0.13**	0.06	0.17*
All exc. sector and other	5,619	0.64***	0.06*	0.05	0.17***
(d) Size of distribution fees					
High distribution fee	3,853	0.68***	0.03	0.08	0.12
Low distribution fee	2,994	0.69***	0.13***	0.04	0.21**
(e) Size of fund family					
Large fund families	4,055	0.70***	0.16**	0.07	0.19*
Small fund families	3,337	0.66***	0.10**	−0.02	0.11
(f) Investor type					
Retail	4,037	0.70***	0.09**	0.04	0.13**
Institutional	2,771	0.59***	0.08	0.04	0.11
(g) Full sample (for comparison)					
All	6,207	0.68***	0.10**	0.03	0.16**

Table XIII: Alphas of winner- and loser-fund subgroups across different market cycles

This table presents monthly four-factor alphas of spread portfolios of winner- and loser-fund subgroups (in percentage points) based on independent sorts on absolute fund flows and manager change across different market cycles. See the note to Figure 1 for more explanation on the portfolio formation. The first column reports the unconditional four-factor alpha of the winner and loser funds, respectively. The second column reports the change in four-factor alphas between the formation and evaluation periods. The third and fourth columns report spreads between the subgroups conditional on net inflows and manager changes, respectively. The fifth column reports spreads between the subgroups conditional on net inflows and manager changes simultaneously. Panel (a) reports the results for winner funds and panel (b) for loser funds. ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity-consistent standard errors are used for the regression coefficients.

(a) Winner funds

		Uncond.	Persistence	Single sorting		Double sort.
		Dec. 10	$\Delta\alpha_t$	Low − High	Without − With	Low w/o − High with
1992−2000	(Bull market)	0.13	-0.73^{***}	0.29^{***}	0.10	0.45^{***}
2001−2003	(Bear market)	−0.26	-1.46^{***}	0.15	−0.03	0.12
2004−2007	(Bull market)	−0.08	-0.65^{***}	−0.04	−0.02	−0.04
2008−2011	(Bear market)	−0.13	-0.81^{***}	0.09^{*}	−0.12	−0.03
Whole period		0.01	-0.81^{***}	0.15^{***}	0.01	0.19^{**}

(b) Loser funds

		Uncond.	Persistence	Single sorting		Double sort.
		Dec. 1	$\Delta\alpha_t$	Low − High	With − Without	Low with − High w/o
1992−2000	(Bull market)	−0.20	0.79^{***}	0.02	0.13^{*}	0.23^{*}
2001−2003	(Bear market)	-0.52^{***}	0.51^{***}	0.08	−0.08	0.04
2004−2007	(Bull market)	−0.09	0.80^{***}	0.08	0.02	0.10
2008−2011	(Bear market)	-0.19^{*}	0.43^{***}	0.15^{***}	−0.03	0.03
Whole period		-0.21^{**}	0.68^{***}	0.10^{**}	0.03	0.16^{**}

Table XIV: Classification of investment objectives

This table presents the classification codes we have used to construct our sample. We use Lipper codes, Wiesenberger codes and Strategic Insight codes where priority is given in this order if different codes assign funds to different investment categories.

	Lipper	Wiesenberger	Strategic Insight
Cap-based funds large-cap	LCCE, LCGE, LCVE, SP		
Cap-based funds mid-cap	MC, MCCE, MCGE, MCVE	GMC	
Cap-based funds small-cap	SCCE, SCGE, SCVE, SG, MR	SCG	SCG
Style funds growth	CA, G, MLGE	AGG, G, LTG, GRO, MCG	AGG, GRO, GRI, ING
Style funds growth and income	MLCE, GI	G-I, GCI, GRI, ING	
Style funds income	MLVE, EI, EIEI	IEQ, I[a]	OPI
Sector funds financial	FS	FIN	FIN
Sector funds health	H	HLT	HLT
Sector funds natural resources	NR	ENR	NTR
Sector funds technology	TK	TCH	TEC
Sector funds utilities	UT	UTL	UTI
Sector funds other	S, SESE, TL	GPM	ENV, RLE, SEC, GLD
Other	I	G-I-S, G-S, G-S-I, I-G, I-G-S, I-S, I-S-G, S-G, S-G-I, S-I-G, S-I	

[a] Note that Wiesenberger code I for income funds is not restricted to income equity funds but also contains income money market funds, income bond funds etc. Consequently we use a combination of Wiesenberger code I and policy code CS or I-S or Wiesenberger code I and an allocation to stocks of at least 50 percent as condition for funds to be included in our sample.