

Morningstar DirectSM Fund Flows Commentary

United States

Morningstar Research

April 2019

Data through April 30, 2019
U.S. Mutual Funds and Exchange-
Traded Products

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Key Takeaways

- ▶ Passive U.S. equity fund assets essentially reached parity with active U.S. equity funds at \$4.3 trillion each. Passive U.S. equity funds closed the gap with more than \$39 billion in April inflows, versus more than \$22 billion in outflows for their active counterparts.
- ▶ Fidelity appeared to dominate inflows with about \$28 billion, but much of this owed to share-class swaps by its Freedom target-date funds. Vanguard trailed both iShares and SPDR State Street with \$5.5 billion in inflows, its weakest showing since 2013.
- ▶ Demand for taxable-bond funds continues to grow. They collected about \$42.5 billion, the second-best month over the past three years and the best since January 2018. The bulk of those flows went to core intermediate-term bond funds. Passive funds also took in more than active with about \$25 billion versus \$17.0 billion.
- ▶ The only other category with inflows was municipal bond, with \$7.1 billion. All other categories had outflows, including international equity, which saw about \$8.8 billion in outflows. After strong demand in recent years, international-equity funds have taken in just \$4.3 billion over the past 12 months.

Passive U.S. Equity Funds Catch Active U.S. Equity Funds

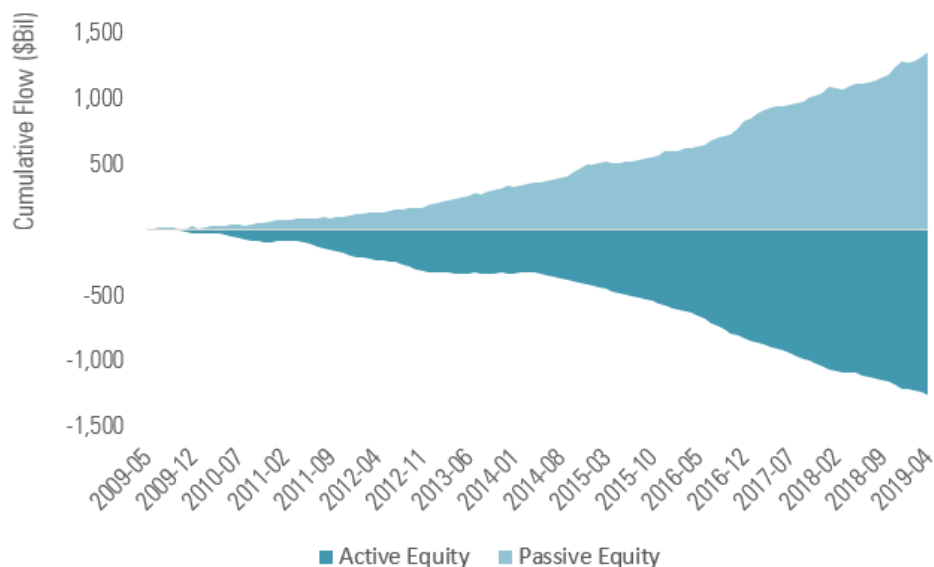
It wasn't quite official as of April 30, 2019, but it was darn close. Passive U.S. equity funds had assets of \$4.305 trillion by month-end, just \$6 billion shy of active U.S. equity funds' \$4.311 trillion. Passive U.S. equity funds closed the gap with more than \$39 billion in April inflows, versus more than \$22 billion in outflows for their active counterparts. In market share terms (for open-end and exchange-traded funds combined), active U.S. equity funds had 50.04% market share versus passive U.S. equity funds' 49.96%. The May numbers will almost certainly show passive U.S. equity funds' total assets eclipsing active funds.

This isn't a surprise given the overwhelming outflows from active U.S. equity funds to passive options over the past 10 years. (See Exhibit 1 below.) Still, 10 years ago, active U.S. equity funds had about 75% market share. And at that point we were just entering one of the longest bull markets in U.S. history. If you had known this, would you have guessed that active U.S. equity funds were on track to lose \$1.26 trillion in outflows?

Note that the shift to passive U.S. equity funds hasn't come with much growth for the group overall. Passive U.S. equity inflows largely matched active outflows over the past 10 years, taking in about \$1.35 trillion. Thus, U.S. equity funds--active and passive--collected just \$86 billion in net new money during a

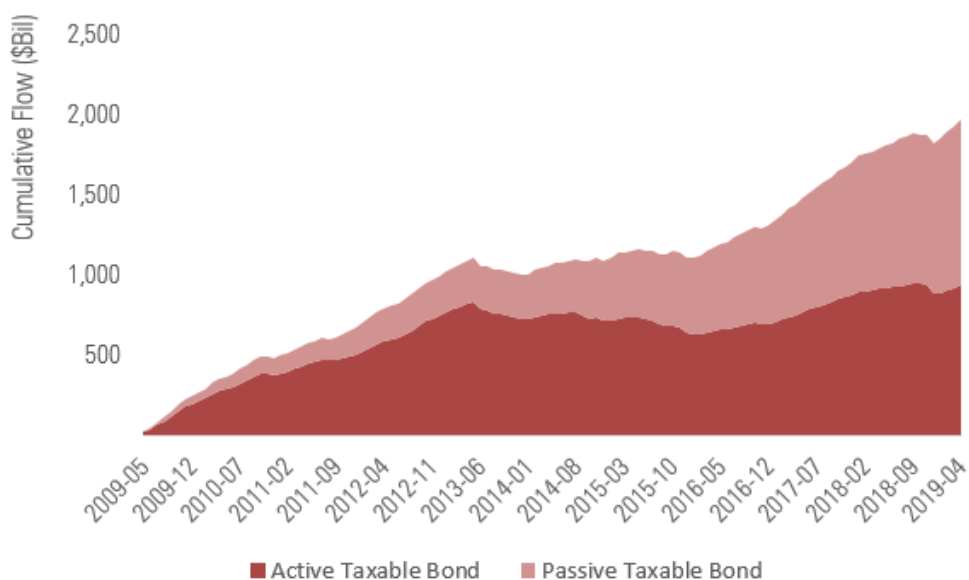
10-year bull market. If that still sounds like a lot of money, that's organic growth of just 3.3% (unannualized) over a decade.

Exhibit 1 10-Year Cumulative Flows for Active-Passive U.S. Equity



Source: Morningstar Direct Asset Flows. Data as of April 30, 2019.

Exhibit 2 10-Year Cumulative Flows for Active-Passive Taxable Bonds



Source: Morningstar Direct Asset Flows. Data as of April 30, 2019.

It looks downright paltry compared with the past 10 years for taxable-bond funds, which collected nearly \$2 trillion overall. (See Exhibit 2 above.) Many attribute these flow trends to demographics as aging baby boomers cut their equity holdings in favor of more-conservative bond funds. In April, taxable-bond funds collected \$42.5 billion, the group's second-best month over the past three years and the best since January 2018.

While nowhere near as dominant as their U.S. equity cousins, passive taxable-bond funds are also growing their share. They collected about \$25.5 billion in April versus \$17.0 for active taxable-bond funds. Over the past 12 months, passive taxable-bond market share has grown to 32.7% from 29.9%.

The bulk of taxable-bond flows went to intermediate-term bond funds. But there was an interesting bifurcation in April as the old intermediate-term bond Morningstar Category was retired and two new related Morningstar Categories were introduced: intermediate core bond and intermediate core-plus bond. (For those who want the details on the new categories and the rationale behind their creation, see the May 2, 2019, [Fund Spy](#) from my colleague Sarah Bush.)

As you might guess from the name, intermediate core bond funds tend to invest in investment-grade bonds and are conventional in their approach. Funds in the intermediate core-plus bond category tend to have more-flexible mandates and take on more credit risk. In April, intermediate core bond flows were much greater with \$20.5 billion in inflows versus \$8.1 billion for core-plus.

What's interesting is how demand for these two types of funds played out along active-passive lines. Recall that active taxable-bond funds tend to be more credit-oriented than their passive counterparts. Active bond funds take on more credit risk than their indexes in part to earn higher returns but also because they have the flexibility to buy less-liquid and perhaps lower-quality credits. So, one might expect to see greater passive flows in the intermediate core bond group and more active flows in the core-plus category.

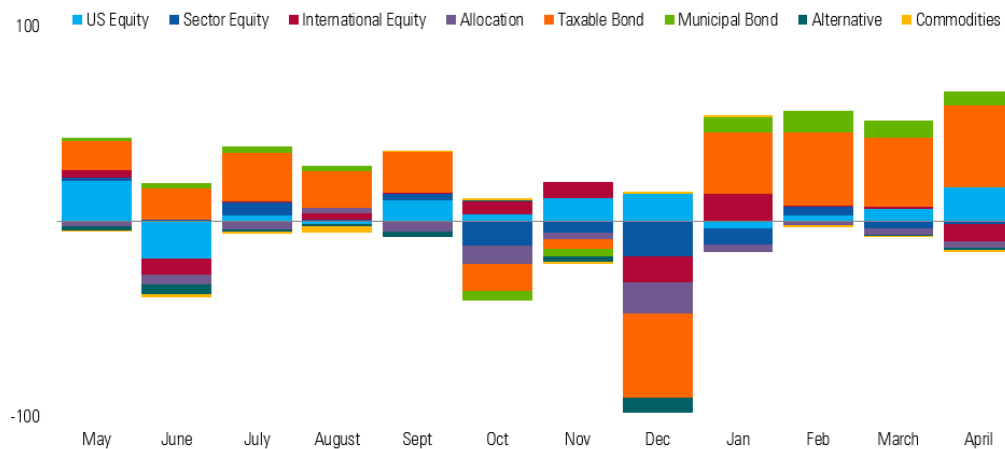
That's what happened in April. Passive funds accounted for \$18.0 billion of the \$20.5 billion collected by intermediate core bond funds. Conversely, active intermediate core-plus bond funds took \$8.0 billion of the \$8.1 billion collected overall.

Exhibit 3: U.S. Category Flows

US Category Group	Total Estimated Net Flows \$Mil		
	April 2019	1 Year	Assets (\$Bil)
US Equity	17,120	90,197	8,616
Sector Equity	-1,371	-30,783	911
International Equity	-8,820	4,341	3,140
Allocation	-3,446	-66,769	1,332
Taxable Bond	42,454	177,661	4,024
Municipal Bond	7,119	37,090	752
Alternative	-763	-20,506	197
Commodities	-1,290	-6,396	92
All Long Term	51,003	184,836	19,063
Money Market	-15,955	246,955	3,126

Source: Morningstar Direct Asset Flows. Data as of April 30, 2019.

Exhibit 4 Morningstar Category Groups' 12-Month Asset Flows



Source: Morningstar Direct Asset Flows. Data as of April 30, 2019.

Exhibit 5 Estimated Net Flows (\$Mil) by Active/Passive U.S. Category Groups

US Category Group	Active			Passive		
	April 2019	1 Year	Assets \$Bil	April 2019	1 Year	Assets \$Bil
US Equity	-22,169	-175,857	4,311	39,288	266,060	4,304
Sector Equity	-2,444	-23,547	404	1,073	-7,235	506
International Equity	-8,388	-81,153	1,805	-432	85,494	1,334
Allocation	-4,061	-69,531	1,255	616	2,763	77
Taxable Bond	16,961	20,143	2,709	25,493	157,518	1,315
Municipal Bond	6,257	29,984	714	862	7,106	38
Alternative	-1,086	-23,060	145	324	2,554	52
Commodities	391	143	30	-1,681	-6,538	61
All Long Term	-14,540	-322,878	11,375	65,543	507,721	7,688

Source: Morningstar Direct Asset Flows. Data as of April 30, 2019. Excludes money market.

More broadly, investor demand continued to narrow in April. Core strategies have long dominated fund flows. But this dynamic reached a new level in April as most flows went to just two--now three--categories: large blend and intermediate-term bond, now broken into the two categories discussed above. (See Exhibit 6.) Those three categories collected \$54.8 billion in inflows. Since long-term flows were \$51.0 billion overall in April, this means that all the other categories combined had net outflows.

Exhibit 6 Morningstar Categories With the Greatest Estimated Net Inflows and Outflows in April (\$Mil)

	Active	Passive	Total	1 Year Total	Assets \$Bil
Top					
Large Blend	-5,461	31,747	26,286	146,656	3,816
Intermediate Core Bond	2,456	18,030	20,485	36,825	858
Intermediate Core-Plus Bond	7,984	75	8,059	18,547	686
Long Government	103	3,759	3,861	14,686	58
Muni National Interm	2,947	458	3,405	24,393	235
Bottom					
Foreign Large Blend	-1,709	-4,896	-6,606	47,351	1,132
Health	-1,780	-2,236	-4,016	4,156	172
Foreign Large Value	-3,674	86	-3,589	-15,398	204
Large Value	-5,087	2,003	-3,084	-16,982	1,159
Bank Loan	-2,676	-244	-2,920	-23,619	119

Source: Morningstar Direct Asset Flows. Data as of April 30, 2019.

Fund Families

iShares and State Street saw the first- and second-greatest respective firm inflows at \$8.0 billion and \$7.5 billion. (See Exhibit 7 below.) Both benefited from the trend toward core investments. State Street's large-blend SPDR S&P 500 ETF SPY received \$5.0 billion in inflows, this month's highest. (See Exhibit 8 below.) iShares benefited from iShares 20+ Year Treasury Bond ETF's TLT \$3.3 billion in inflows, the month's third-best showing. A long-government fund such as this is usually employed as a diversifier within an equity-focused portfolio. Perhaps with the market near record highs in April, more investors became concerned with downside risk.

Vanguard saw \$5.5 billion in inflows, and although this ranked as the month's third-highest inflows, it was the firm's weakest showing since August 2013. Only Vanguard Total Bond Market II Index VTBIX

placed among April's funds with the top five greatest inflows. It collected \$5 billion in inflows, while Vanguard Total International Stock Index VGTIX shed \$7.6 billion in outflows, the month's greatest.

Oakmark's outflows were the highest of any firm at \$2.5 billion. The firm has seen outflows the past 11 months following a period of poor performance in 2018. While all its strategies saw outflows, Oakmark International OAKIX recorded \$1.3 billion in outflows, the eighth-highest among all funds.

T. Rowe Price's \$1.6 billion in outflows were the greatest among the 10 largest firms. However, its outflows weren't abnormal compared with its \$1.5 billion monthly average over the past year. T. Rowe Price International Value Equity TRIGX saw \$640 million in outflows with remaining outflows were distributed across various vehicles.

Exhibit 7 Estimated Net Flows (\$Mil) for the Top 10 U.S. Fund Families (by Assets)

	Active	Passive	April Total	1 Year Total	Assets \$Bil
Vanguard	-823	6,317	5,494	158,903	4,833
Fidelity Investments	-2,798	30,980	28,182	101,131	1,673
American Funds	1,425		1,425	9,717	1,644
iShares	-53	8,100	8,047	121,346	1,527
SPDR State Street Global Advisors	326	7,220	7,545	8,851	650
T. Rowe Price	-1,289	-271	-1,560	-17,526	631
Dimensional Fund Advisors	918	-24	894	15,555	427
PIMCO	2,195	-47	2,148	-1,364	367
Franklin Templeton Investments	-1,564	167	-1,397	-29,165	357
Invesco	-1,354	3,610	2,256	-8,906	351

Source: Morningstar Direct Asset Flows. Data as of April 30, 2019. Excludes money market.

Exhibit 8 Funds With the Greatest Estimated Net Inflows and Outflows (\$Mil)

	April 2019	1 Year	Assets (\$Mil)
Top			
SPDR® S&P 500 ETF	5,035	344	278,461
Vanguard Total Bond Market II Index Fund	5,004	15,757	178,018
iShares 20+ Year Treasury Bond ETF	3,292	4,986	13,066
TIAA-CREF Bond Index Fund	2,905	3,902	14,249
Invesco QQQ Trust	2,849	6,349	76,072
iShares Core S&P 500 ETF	2,621	19,328	179,040
PIMCO Income Fund	2,434	4,367	121,773
iShares Core MSCI EAFE ETF	2,213	9,265	64,193
Financial Select Sector SPDR® Fund	1,839	-6,056	25,847
Vanguard Total Bond Market Index Fund	1,818	11,407	217,698
Bottom			
Vanguard Total Intl Stock Idx Fund	-7,574	37,539	372,473
iShares MSCI EAFE ETF	-1,987	-10,215	63,357
Fidelity® Contrafund® Fund	-1,558	-10,831	123,491
iShares JP Morgan USD Em Mkts Bd ETF	-1,555	4,093	15,609
Dodge & Cox International Stock Fund	-1,477	-8,552	51,746
iShares iBoxx \$ Invmt Grade Corp Bd ETF	-1,476	-1,291	32,213
iShares Russell 2000 ETF	-1,292	423	43,412
Oakmark International Fund	-1,288	-6,215	35,420
iShares TIPS Bond ETF	-1,187	-4,092	20,661
Vanguard Short-Term Bond Index Fund	-1,168	-2,464	48,538

Source: Morningstar Direct Asset Flows. Data as of April 30, 2019.

Note: The figures in this report were compiled on May 9, 2019, and reflect only the funds that had reported net assets by that date. The figures in both the commentary and the extended tables are survivorship-bias-free.

This report includes both mutual funds and exchange-traded funds, but not funds of funds unless specifically stated. It does not include collective investment trusts or separate accounts.

Important methodology note: Morningstar computes flows using the approach that is standard in the industry: Estimated net flow is the change in assets not explained by the performance of the fund. Our method assumes that flows occur uniformly over the course of the month. Adjustments for mergers are performed automatically. When liquidated funds are included, the final assets of the fund are counted as outflows. Reinvested dividends are not counted as inflows. We use fund-level reinvestment rates to improve accuracy in this respect. We make ad hoc adjustments for unusual corporate actions such as reverse share splits, and we overwrite our estimates with actual flows if managers are willing to provide the data to us. Please click [here](#) for a full explanation of our methodology. ■■■



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Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF

Including merged and liquidated funds

Effective Date
04-30-2019

Morningstar Categories Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Total Net Assets (\$bil)				Total Return	
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %	1-Mo	YTD
1	US Fund Large Blend	26,319	26,319	53,777	169,957	3,816	20.02	3,172	17.67	7.79	34.66
2	US Fund Large Growth	336	336	(7,238)	(27,986)	1,796	9.42	1,633	9.10	8.65	41.45
3	US Fund Large Value	(3,044)	(3,044)	(11,307)	(18,275)	1,159	6.08	1,142	6.36	6.92	30.16
4	US Fund Foreign Large Blend	(6,552)	(6,552)	2,027	53,618	1,132	5.94	1,145	6.38	5.51	26.59
5	US Fund Intermediate Core Bond	20,672	20,672	50,633	45,170	858	4.50	770	4.29	0.11	5.81
6	US Fund Intermediate Core-Plus Bond	8,059	8,059	20,437	18,558	686	3.60	642	3.58	0.46	7.20
7	US Fund Diversified Emerging Mkts	2,062	2,062	20,084	20,092	579	3.04	589	3.28	3.60	24.55
8	US Fund Allocation--50% to 70% Equity	207	207	(457)	(10,105)	570	2.99	545	3.04	4.46	22.78
9	US Fund Mid-Cap Blend	(106)	(106)	700	11,171	457	2.40	404	2.25	7.49	36.54
10	US Fund Foreign Large Growth	(2,060)	(2,060)	(4,062)	(12,901)	412	2.16	489	2.72	7.03	33.62
11	US Fund World Large Stock	(1,645)	(1,645)	(6,138)	(15,813)	410	2.15	421	2.34	6.63	32.35
12	US Fund Short-Term Bond	1,479	1,479	8,961	19,219	408	2.14	379	2.11	0.62	4.03
13	US Fund Small Blend	(1,826)	(1,826)	(2,900)	9,711	402	2.11	375	2.09	7.46	34.92
14	US Fund Mid-Cap Growth	(925)	(925)	(1,804)	(5,724)	356	1.87	328	1.83	8.35	46.48
15	US Fund World Allocation	(2,433)	(2,433)	(7,324)	(28,086)	295	1.55	319	1.78	3.00	19.02
16	US Fund High Yield Bond	1,948	1,948	16,799	(6,612)	291	1.53	292	1.63	2.60	15.48
17	US Fund Ultrashort Bond	2,385	2,385	9,572	75,979	254	1.33	175	0.97	0.57	2.61
18	US Fund Small Growth	(676)	(676)	(1,422)	3,289	246	1.29	221	1.23	7.49	42.77
19	US Fund Multisector Bond	3,088	3,088	9,462	(6,300)	245	1.29	244	1.36	1.41	9.69
20	US Fund Muni National Interm	3,414	3,414	17,361	24,569	235	1.23	201	1.12	0.68	6.16
21	US Fund Mid-Cap Value	(1,745)	(1,745)	(3,246)	(13,347)	224	1.18	237	1.32	7.76	34.57
22	US Fund Allocation--30% to 50% Equity	(624)	(624)	(1,795)	(15,684)	220	1.15	228	1.27	2.84	17.12
23	US Fund Foreign Large Value	(3,589)	(3,589)	(7,859)	(14,697)	204	1.07	235	1.31	4.72	22.49
24	US Fund World Bond-USD Hedged	2,510	2,510	13,659	20,334	184	0.96	159	0.89	0.44	7.51
25	US Fund Health	(4,013)	(4,013)	(3,215)	4,176	172	0.90	158	0.88	(6.95)	17.99
26	US Fund Technology	1,485	1,485	480	(3,172)	163	0.86	142	0.79	11.41	53.14
27	US Fund Real Estate	(653)	(653)	2,708	(1,856)	163	0.85	142	0.79	0.56	32.86
28	US Fund Small Value	(717)	(717)	183	(1,129)	158	0.83	162	0.90	7.62	33.01
29	US Fund Inflation-Protected Bond	(1,138)	(1,138)	(166)	2,404	157	0.82	149	0.83	0.75	7.19
30	US Fund Intermediate Government	2,970	2,970	13,672	18,679	149	0.78	126	0.70	(0.22)	3.87
31	US Fund Corporate Bond	680	680	5,995	426	136	0.71	133	0.74	1.20	11.00
32	US Fund Muni National Short	(1,507)	(1,507)	171	2,344	131	0.69	128	0.71	0.20	2.55
33	US Fund Allocation--70% to 85% Equity	(257)	(257)	(879)	(5,926)	131	0.69	130	0.72	5.36	26.79
34	US Fund Nontraditional Bond	206	206	(1,728)	(4,218)	120	0.63	124	0.69	1.55	7.35
35	US Fund Bank Loan	(2,916)	(2,916)	(13,674)	(23,604)	119	0.62	141	0.78	3.02	10.50

Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF

Including merged and liquidated funds

Effective Date
04-30-2019

Morningstar Categories Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Total Net Assets (\$bil)				Total Return	
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %	1-Mo	YTD
36	US Fund Muni National Long	2,367	2,367	5,330	1,818	111	0.58	107	0.60	0.95	7.64
37	US Fund High Yield Muni	1,524	1,524	6,976	8,688	103	0.54	95	0.53	1.11	7.92
38	US Fund World Bond	62	62	(25)	(6,337)	88	0.46	96	0.53	0.14	4.95
39	US Fund Short Government	(1,171)	(1,171)	2,066	18,128	75	0.39	54	0.30	0.33	2.41
40	US Fund Emerging Markets Bond	(2,069)	(2,069)	(416)	480	73	0.38	73	0.41	0.62	11.64
41	US Fund World Small/Mid Stock	165	165	1,130	1,804	72	0.38	69	0.38	7.16	33.30
42	US Fund Financial	1,488	1,488	(4,101)	(17,357)	60	0.32	80	0.44	14.47	36.14
43	US Fund Long Government	3,861	3,861	6,329	14,589	58	0.31	40	0.22	(3.59)	5.21
44	US Fund Europe Stock	552	552	(2,146)	(15,206)	58	0.30	77	0.43	7.87	30.52
45	US Fund Global Real Estate	(74)	(74)	(734)	(4,738)	55	0.29	58	0.32	(1.72)	27.26
46	US Fund Commodities Precious Metals	(1,405)	(1,405)	(997)	(3,761)	52	0.27	57	0.32	(1.40)	2.60
47	US Fund Long-Term Bond	866	866	816	2,482	51	0.27	46	0.26	0.38	13.80
48	US Fund Preferred Stock	1,324	1,324	2,934	(1,972)	48	0.25	50	0.28	2.31	19.07
49	US Fund Multialternative	(333)	(333)	(1,232)	(6,940)	46	0.24	54	0.30	2.12	10.61
50	US Fund Energy Limited Partnership	(490)	(490)	(248)	(778)	44	0.23	45	0.25	(2.68)	35.42
51	US Fund Foreign Small/Mid Growth	(158)	(158)	32	(2,070)	42	0.22	54	0.30	7.92	33.91
52	US Fund Muni California Long	394	394	1,223	399	41	0.21	39	0.22	1.00	6.92
53	US Fund Foreign Small/Mid Blend	(75)	(75)	(348)	1,873	40	0.21	42	0.24	6.29	27.97
54	US Fund Equity Energy	(446)	(446)	(4,666)	(6,029)	38	0.20	51	0.28	1.39	35.88
55	US Fund Miscellaneous Region	1,664	1,664	2,710	2,899	37	0.19	37	0.20	—	—
56	US Fund Commodities Broad Basket	233	233	463	(1,025)	36	0.19	41	0.23	0.08	14.24
57	US Fund Utilities	531	531	1,220	2,696	34	0.18	31	0.17	1.21	23.43
58	US Fund Natural Resources	(462)	(462)	(1,361)	(5,381)	33	0.17	41	0.23	1.91	25.52
59	US Fund Industrials	16	16	(1,441)	(6,287)	31	0.16	35	0.20	10.19	41.88
60	US Fund China Region	63	63	2,765	6,541	30	0.16	24	0.13	2.38	44.74
61	US Fund Japan Stock	93	93	(3,798)	(6,868)	30	0.16	40	0.23	2.65	17.17
62	US Fund Consumer Cyclical	915	915	(46)	(507)	30	0.16	27	0.15	9.92	40.23
63	US Fund Trading--Leveraged Equity	(393)	(393)	(3,032)	(1,313)	29	0.15	27	0.15	—	—
64	US Fund Long-Short Equity	(679)	(679)	(2,146)	(8,395)	29	0.15	38	0.21	3.85	15.97
65	US Fund Pacific/Asia ex-Japan Stk	341	341	593	(539)	29	0.15	30	0.17	2.96	27.76
66	US Fund Muni California Intermediate	322	322	1,702	2,152	28	0.15	25	0.14	0.56	5.23
67	US Fund Foreign Small/Mid Value	37	37	27	(883)	25	0.13	30	0.17	5.20	23.60
68	US Fund Market Neutral	(49)	(49)	1,459	2,308	25	0.13	23	0.13	(0.07)	0.08
69	US Fund Allocation--85%+ Equity	(309)	(309)	(1,143)	(1,515)	25	0.13	26	0.14	6.20	30.88
70	US Fund Allocation--15% to 30% Equity	(129)	(129)	(255)	(4,817)	24	0.12	28	0.16	1.54	11.84

Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF

Including merged and liquidated funds

Effective Date
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Morningstar Categories Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Total Net Assets (\$bil)				Total Return	
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %	1-Mo	YTD
71	US Fund Equity Precious Metals	(514)	(514)	(2,211)	(59)	22	0.12	25	0.14	(12.26)	2.92
72	US Fund Muni New York Long	135	135	445	(773)	22	0.12	22	0.12	0.94	7.30
73	US Fund Consumer Defensive	133	133	407	3,028	21	0.11	16	0.09	4.89	28.99
74	US Fund Options-based	594	594	1,235	3,816	20	0.11	16	0.09	3.50	17.21
75	US Fund Muni Single State Long	207	207	609	(828)	20	0.10	21	0.12	0.73	5.70
76	US Fund Infrastructure	58	58	337	(453)	18	0.10	18	0.10	2.93	30.88
77	US Fund Convertibles	(119)	(119)	(354)	446	18	0.09	16	0.09	5.57	26.58
78	US Fund Diversified Pacific/Asia	1	1	213	(764)	17	0.09	19	0.11	3.44	23.96
79	US Fund Communications	529	529	3,251	6,957	16	0.09	8	0.04	9.97	35.66
80	US Fund Managed Futures	(443)	(443)	(1,901)	(6,439)	16	0.08	22	0.13	4.06	6.55
81	US Fund Emerging-Markets Local-Currency Bond	(363)	(363)	61	(454)	14	0.07	16	0.09	(0.03)	6.31
82	US Fund Tactical Allocation	(140)	(140)	(438)	(581)	14	0.07	14	0.08	3.39	17.70
83	US Fund Latin America Stock	328	328	1,051	494	12	0.07	13	0.07	2.44	18.57
84	US Fund Muni Single State Interm	56	56	135	(561)	11	0.06	11	0.06	0.39	4.89
85	US Fund India Equity	23	23	(193)	(1,517)	10	0.05	12	0.07	(2.23)	6.80
86	US Fund Miscellaneous Sector	130	130	641	353	10	0.05	9	0.05	—	—
87	US Fund Muni Single State Short	(65)	(65)	(10)	(202)	9	0.05	9	0.05	0.20	3.46
88	US Fund Muni Pennsylvania	64	64	214	(262)	9	0.05	9	0.05	0.83	6.35
89	US Fund Target Maturity	365	365	1,792	3,391	8	0.04	5	0.03	0.85	8.57
90	US Fund Trading--Inverse Equity	(26)	(26)	3,108	2,746	8	0.04	7	0.04	—	—
91	US Fund Target-Date 2030	49	49	113	55	7	0.04	5	0.03	4.45	23.74
92	US Fund Muni New York Intermediate	131	131	450	564	7	0.04	6	0.03	0.77	5.87
93	US Fund Muni Massachusetts	56	56	267	(34)	7	0.04	7	0.04	0.71	6.10
94	US Fund Muni New Jersey	55	55	163	(48)	6	0.03	6	0.03	0.92	6.67
95	US Fund Target-Date 2040	47	47	108	80	6	0.03	4	0.02	5.54	28.16
96	US Fund Long-Short Credit	(63)	(63)	(529)	(1,837)	6	0.03	8	0.04	2.06	9.12
97	US Fund Target-Date 2020	(7)	(7)	(71)	(497)	5	0.03	4	0.02	3.20	18.31
98	US Fund Multicurrency	15	15	(484)	(1,675)	5	0.03	7	0.04	0.63	3.38
99	US Fund Muni Minnesota	37	37	164	(91)	5	0.03	5	0.03	0.66	5.62
100	US Fund Muni Ohio	34	34	91	(133)	5	0.02	5	0.03	0.54	5.74
101	US Fund Target-Date 2025	62	62	239	415	4	0.02	3	0.02	3.85	21.06
102	US Fund Target-Date 2035	52	52	234	426	4	0.02	3	0.02	5.13	26.39
103	US Fund Volatility	738	738	2,976	2,497	3	0.02	2	0.01	—	—
104	US Fund Commodities Energy	(102)	(102)	(459)	(739)	3	0.02	4	0.02	8.67	53.11
105	US Fund Target-Date 2050	44	44	146	691	3	0.01	2	0.01	6.00	30.03

Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF

Including merged and liquidated funds

Effective Date
04-30-2019

Morningstar Categories Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Total Net Assets (\$bil)				Total Return	
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %	1-Mo	YTD
106	US Fund Target-Date Retirement	11	11	(23)	(120)	3	0.01	2	0.01	2.06	13.70
107	US Fund Target-Date 2045	51	51	183	340	2	0.01	2	0.01	5.95	29.67
108	US Fund Trading--Leveraged Commodities	21	21	(501)	119	2	0.01	2	0.01	—	—
109	US Fund Bear Market	(6)	(6)	(64)	(380)	2	0.01	3	0.02	(9.47)	(42.45)
110	US Fund Trading--Inverse Debt	(12)	(12)	(336)	(1,491)	2	0.01	4	0.02	—	—
111	US Fund Trading--Miscellaneous	56	56	89	162	2	0.01	2	0.01	—	—
112	US Fund Muni Target Maturity	17	17	111	399	2	0.01	1	0.01	0.08	3.33
113	US Fund Target-Date 2055	37	37	141	(157)	1	0.01	1	0.00	6.15	30.48
114	US Fund Single Currency	8	8	(176)	(254)	1	0.01	1	0.01	—	—
115	US Fund Commodities Agriculture	(1)	(1)	(30)	(314)	1	0.00	1	0.01	(6.86)	(13.98)
116	US Fund Trading--Inverse Commodities	(2)	(2)	60	(83)	1	0.00	1	0.00	—	—
117	US Fund Trading--Leveraged Debt	(126)	(126)	(70)	(96)	0	0.00	0	0.00	—	—
118	US Fund Commodities Industrial Metals	(15)	(15)	(6)	(138)	0	0.00	0	0.00	—	—
119	US Fund Target-Date 2060 +	15	15	52	118	0	0.00	0	0.00	6.18	30.75
120	US Fund Target-Date 2015	(1)	(1)	(17)	(77)	0	0.00	0	0.00	2.93	16.90
121	US Fund Target-Date 2000-2010	(1)	(1)	(8)	(66)	0	0.00	0	0.00	2.45	14.77
Top 10		45,892	45,892	124,595	249,299	11,466	60.15	10,531	58.67	—	—
All		52,121	52,121	192,316	254,372	19,062	100.00	17,951	100.00	—	—

Top Fund Families Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Assets Under Management (\$bil)			
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %
1	Vanguard	5,494	5,494	69,287	160,758	4,833	25.36	4,343	24.20
2	Fidelity Investments	28,182	28,182	51,753	144,214	1,673	8.77	1,268	7.06
3	American Funds	1,425	1,425	11,541	9,717	1,644	8.63	1,547	8.62
4	iShares	8,047	8,047	26,619	121,468	1,527	8.01	1,368	7.62
5	SPDR State Street Global Advisors	7,545	7,545	2,874	8,851	650	3.41	606	3.38
6	T. Rowe Price	(1,560)	(1,560)	(3,418)	(17,529)	631	3.31	601	3.35
7	Dimensional Fund Advisors	894	894	9,461	15,642	427	2.24	412	2.29
8	PIMCO	2,148	2,148	5,071	(1,352)	367	1.93	358	2.00
9	Franklin Templeton Investments	(1,397)	(1,397)	(6,172)	(29,111)	357	1.87	370	2.06
10	Invesco	2,256	2,256	1,802	(8,180)	351	1.84	339	1.89

Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF

Including merged and liquidated funds

Effective Date
04-30-2019

Top Fund Families Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Assets Under Management (\$bil)			
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %
11	JPMorgan	2,025	2,025	6,027	15,431	333	1.75	305	1.70
12	BlackRock	1,853	1,853	6,039	427	291	1.52	268	1.49
13	Dodge & Cox	(1,228)	(1,228)	(2,086)	(11,810)	208	1.09	215	1.20
14	OppenheimerFunds	(1,819)	(1,819)	(4,648)	(14,721)	194	1.02	205	1.14
15	Jackson National	(390)	(390)	(1,351)	(4,744)	177	0.93	169	0.94
16	Columbia	(487)	(487)	(2,415)	(8,257)	151	0.79	151	0.84
17	TIAA Investments	4,612	4,612	4,026	6,307	147	0.77	132	0.74
18	Lord Abbett	1,038	1,038	5,105	13,070	143	0.75	123	0.69
19	Schwab ETFs	1,289	1,289	8,073	27,464	140	0.73	107	0.60
20	Janus Henderson	(906)	(906)	(2,843)	(6,675)	139	0.73	136	0.76
21	Principal Funds	488	488	(94)	(6,839)	134	0.71	132	0.74
22	John Hancock	(486)	(486)	(2,863)	(7,319)	131	0.69	136	0.76
23	Legg Mason	1,066	1,066	3,494	(1,017)	121	0.63	109	0.61
24	Hartford Mutual Funds	(418)	(418)	(683)	(4,127)	116	0.61	112	0.62
25	PGIM Funds (Prudential)	1,232	1,232	3,367	4,920	110	0.58	101	0.56
26	American Century Investments	(716)	(716)	(3,204)	(12,193)	108	0.57	112	0.62
27	AXA Equitable	(595)	(595)	(2,014)	(1,702)	106	0.56	101	0.56
28	Goldman Sachs	111	111	1,418	5,271	102	0.53	95	0.53
29	SEI	(405)	(405)	(2,450)	(5,035)	100	0.53	100	0.56
30	Schwab Funds	110	110	892	3,672	88	0.46	78	0.43
31	AllianceBernstein	(67)	(67)	2,230	1,271	85	0.45	82	0.46
32	Wells Fargo Funds	(298)	(298)	(2,346)	(8,490)	83	0.43	87	0.48
33	DoubleLine	857	857	5,080	1,318	83	0.43	78	0.43
34	Nuveen	1,171	1,171	3,481	3,957	82	0.43	75	0.42
35	Voya	(200)	(200)	(1,923)	(6,332)	81	0.43	82	0.46
36	Eaton Vance	(472)	(472)	(651)	(2,657)	79	0.42	80	0.44
37	Metropolitan West Funds	(73)	(73)	389	(9,284)	79	0.41	85	0.47
38	Oakmark	(2,453)	(2,453)	(3,478)	(14,126)	77	0.41	97	0.54
39	Putnam	(536)	(536)	(618)	1,645	74	0.39	67	0.37
40	First Trust	1,361	1,361	4,308	9,371	72	0.38	59	0.33
41	Bridge Builder	1,063	1,063	2,142	14,404	72	0.38	54	0.30
42	USAA	(138)	(138)	(396)	(1,553)	70	0.37	67	0.37
43	First Eagle	(586)	(586)	(2,093)	(11,038)	70	0.37	81	0.45
44	Federated	489	489	182	(3,108)	67	0.35	67	0.37
45	Ivy Funds	(742)	(742)	(2,250)	(6,577)	59	0.31	60	0.34

Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF Including merged and liquidated funds

Effective Date
04-30-2019

Top Fund Families Ranked by Current TNA (\$Mil)

Rank	Name	Estimated Net Flow (\$mil)				Assets Under Management (\$bil)			
		1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %
46	Dreyfus	(59)	(59)	83	(4,337)	58	0.30	60	0.33
47	Baird	1,898	1,898	6,267	7,144	55	0.29	46	0.25
48	Delaware Funds by Macquarie	(150)	(150)	564	591	54	0.28	51	0.28
49	MainStay	750	750	1,179	(1,609)	53	0.28	51	0.29
50	Natixis Funds	(118)	(118)	(937)	(4,711)	53	0.28	55	0.31
Top 10		53,034	53,034	168,818	404,478	12,460	65.37	11,212	62.46
Top 50		61,109	61,109	193,823	362,479	16,904	88.68	15,481	86.24
Other		(8,989)	(8,989)	(1,168)	(102,280)	2,158	11.32	2,410	13.43
All		52,121	52,121	192,655	260,199	19,062	100.00	17,891	99.67

Fund Flows

Monthly Market Summary: US Open-end & ETF ex MM ex FoF

Including merged and liquidated funds

Effective Date
04-30-2019

Asset Classes								
Name	Estimated Net Flow (\$mil)				Assets Under Management (\$bil)			
	1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %
US Equity	17,617	17,617	26,744	127,668	8,616	45.20	7,674	42.75
Sector Equity	(1,367)	(1,367)	(8,979)	(29,408)	911	4.78	885	4.93
International Equity	(8,750)	(8,750)	6,090	16,062	3,140	16.47	3,327	18.54
Allocation	(3,446)	(3,446)	(11,546)	(65,060)	1,332	6.99	1,332	7.42
Taxable Bond	42,816	42,816	147,179	190,343	4,024	21.11	3,713	20.69
Municipal Bond	7,241	7,241	35,401	38,000	752	3.94	696	3.88
Alternative	(700)	(700)	(1,544)	(17,256)	197	1.03	217	1.21
Commodities	(1,290)	(1,290)	(1,029)	(5,977)	92	0.48	104	0.58
All Long Term	52,121	52,121	192,316	254,372	19,062	100.00	17,951	100.00

Morningstar Ratings								
Name	Estimated Net Flow (\$mil)				Total Net Assets (\$bil)			
	1-Mo	QTD	YTD	1-Yr	04-2019	Mkt Sh %	04-2018	Mkt Sh %
★★★★★	30,021	30,021	120,911	252,727	4,171	21.88	3,592	20.01
★★★★	7,477	7,477	67,779	137,942	7,984	41.88	7,418	41.32
★★★	(7,928)	(7,928)	(12,307)	(136,872)	5,141	26.97	5,178	28.84
★★	(9,707)	(9,707)	(46,976)	(156,301)	1,083	5.68	1,242	6.92
★	(2,881)	(2,881)	(8,077)	(26,930)	140	0.74	172	0.96
Not Rated	35,138	35,138	70,987	183,806	543	2.85	349	1.94
Total	52,121	52,121	192,316	254,372	19,062	100.00	17,951	100.00