

Fi360

Fi360
Fiduciary
Score®

The Top
Quartile

2017 Q4

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INTRODUCTION

RAISING THE BAR

This quarter, over 78,000 investments were scored and 17 percent achieved the highest mark of a zero score, passing the scrutiny of nine rigorous filters. Investment selection and monitoring is an important fiduciary responsibility, and the Fi360 Fiduciary Score® has been designed to help the marketplace understand if funds are performing well from a fiduciary perspective.

We are pleased to see a diverse set of asset managers with investments in the top two quartiles of the Fi360 Fiduciary Score®. These firms are consistently scoring well in 11 categories; two categories are “eliminators”, and nine others may generate points. Like golf, earning fewer points is the goal! Firms who rank in the top two quartiles adhere to meaningful fiduciary standards.

Recent years have witnessed significant growth in CITs. As of Dec. 31, 2017, just over 30 percent, or 1,658 of 5,423, CITs in Morningstar's database have less than three years of history. With target date CITs, the trend of new issuances has been even stronger. 790 of the 2,014 target date CITs in Morningstar's universe have less than three years of history; a whopping 39 percent! As 2018 starts, there's no sign of this trend slowing down. 30 CITs show-up in Morningstar's CIT database with inception dates of Jan. 1-3, 2018; with 24 of those target-date offerings. One of the challenges created by these new issuances is delays in ratings/rankings availability (none of the CITs with less than three years of history receive an Fi360 Fiduciary Score®). We're exploring solutions to facilitate advisor due-diligence of new share classes added to existing funds.

Advisors use the Fi360 Fiduciary Score® to cull down their investment lists; asset managers use the scores to improve their investments and market results. Since 2003, the Fi360 Asset Manager Ranking Report has scored asset managers based on the percentage of their individual investments that received a top Fi360 Fiduciary Score®. Within this new report, we'll bring more unique information for you to consider about asset managers landing in the top two quartiles.

Helping enable you to profitably implement prudent fiduciary practices is our passion. We will continue to monitor our score criteria and methodology - looking for ways to raise the bar. Thank you for reading!

John Faustino AIFA®, PPC® Chief Product and Strategy Officer

WHAT WE MEASURE

The **Fi360 Fiduciary Score®** is a peer percentile ranking.

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The score evaluates investments

across a spectrum of nine quantitative data points to determine if the investment meets a minimum fiduciary standard of care.

We score four investment universes: Open-End Mutual Funds (MFs), Exchange-Traded Funds (ETFs), Collective Investment Trusts (CITs) and Group Annuities (GRPAs). Additionally, we evaluate each strategy/share class combination of Target Date Funds (TDFs) into a Target Date Series score. The Top Quartile Report includes only MF TDFs; the Fi360 Fiduciary Score® and other tools include a broader representation of TDFs.

It is important to note that asset managers may report multiple names. For example, Principal Life Insurance Company and Principal Funds will appear as separate asset managers; Charles Schwab Bank appears separately from Schwab Funds.

SCORING SYSTEM

-
- 1st Quartile (0-25)
- 2nd Quartile (26-50)
- 3rd Quartile (51-75)
- 4th Quartile (76-100)
-

The scores, which range from 0 to 100 (with zero being the most preferred mark), are calculated monthly for registered investments with at least three years of history. Asset managers must contain at least two distinct investments with a three-year history to be considered in the ranking.

Acting in the best interest of investors has always been a priority. But the fiduciary rule now requires advisors to also document a consistent, prudent process. This is where we can help; Fi360 literally wrote the book on prudent fiduciary practices. And then we created the Fi360 Fiduciary Score® to help advisors cull their investment selections using a fiduciary standard of care. The complete Fi360 Fiduciary Score® methodology is available [here](#).

HOW IT WORKS

Criteria that cause an investment to be omitted from the Fi360 Fiduciary Score® system

1. Regulatory oversight – unregistered investments are excluded
2. Minimum track record – Funds without a 3-year history are excluded

Total number of investments considered: **85,994**

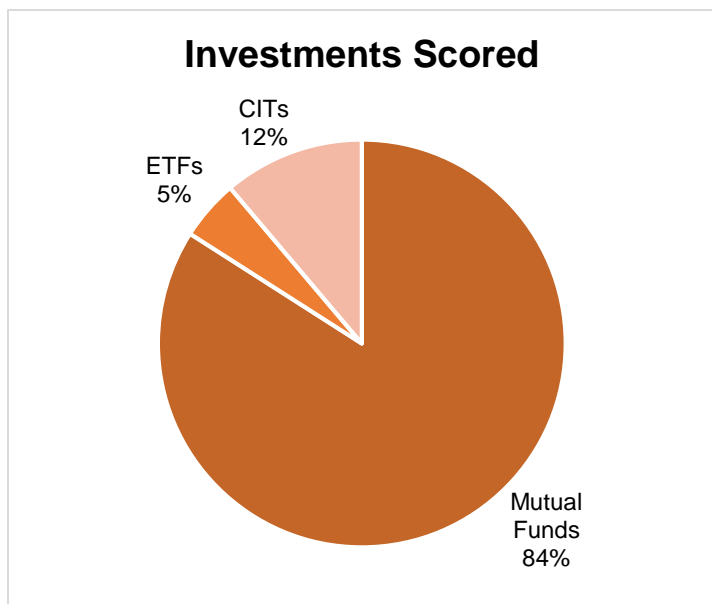
Total number of investments excluded: **7,203**

Total number of investments scored: **78,791**

Criteria adding points to an investment's Fi360 Fiduciary Score®

3. **Assets in the investment** – The investment should have at least \$75 million under management (across all share classes). *5 points added if the investment has less than \$75 million in assets; 10 points added if the investment has less than \$50 million in assets.*
4. **Stability of the organization** – The longest reported manager's tenure should be at least two years. *5 points are added if the longest tenured manager is at least one but less than two years; 10 points added if the longest tenured manager is under one year.*
5. **Composition consistent with asset class** – At least 80 percent of the investment's underlying securities should be consistent with the broad asset class. For example, a Large-Cap Growth investment should not hold more than 20 percent in cash, fixed income, and/or international securities. *10 points added if more than 20 percent of the portfolio is inconsistent with the broad asset class. Note: The broad asset classes used in the composition criterion include: U.S. Stocks, U.S. Bonds and Non-U.S. Stocks. The Long-Short peer group is evaluated on the U.S. Stock and cash composition.*
6. **Style consistency** – The investment should be highly correlated to the asset class of the investment option, i.e., the Morningstar Style Box™ for the current period must match the peer group of the investment. *10 points added if the investment is not correlated to its peer group.*
7. **Expense ratio/fees relative to peers** – The fees should not be in the bottom quartile (most expensive) of the peer group. The Prospectus Net Expense Ratio is used for evaluation of mutual funds and ETFs. If the investment is purchased within a group annuity product, any recordkeeping fees added to the underlying fund expense ratios by the group annuity provider are not included in the ratio. Management fee is used in the evaluation of GRPAs. It is the maximum percentage deducted from an investment's average net assets to pay an advisor or sub-advisor. *10 points added if the investment's expense ratio is in the bottom quartile.*
8. **Risk-adjusted performance to peers** – The investment's risk-adjusted performance (Alpha and Sharpe Ratio) should be above the peer group median manager's risk-adjusted performance. (Alpha is not evaluated for Money Market and Money Market Taxable peer groups.) *2.5 points added if the risk-adjusted performance is in the third quartile; 5.0 points added if the risk-adjusted performance is in the fourth quartile; 7.5 points added if the risk-adjusted performance is in the bottom decile; 7.5 points added if not calculated.*
9. **Performance to peers** – The investment's performance should be above the peer group's median manager return for 1-, 3- and 5-year cumulative periods.
 - One-year performance relative to the median value for the peer group:**
 - 2.5 points added if in the third quartile*
 - 5.0 points added if in the fourth quartile*
 - 7.5 points added if in the bottom decile*
 - 7.5 points added if not calculated*
 - Three-year performance relative to the median value for the peer group:**
 - 5.0 points added if in the third quartile*
 - 7.5 points added if in the fourth quartile*
 - 10.0 points added if in the bottom decile*
 - 10.0 points added if not calculated*
 - Five-year performance relative to the median value for the peer group:**
 - 7.5 points added if in the third quartile*
 - 10.0 points added if in the fourth quartile*
 - 12.5 points added if in the bottom decile*
 - If the investment does not have a five-year performance history:**
 - 7.5 points added if three-year is in the third quartile*
 - 10.0 points added if three-year is in the fourth quartile*
 - 12.5 points added if three-year is in the bottom decile*
 - 12.5 points added if three-year is not calculated*

2017 | Q4 BY THE NUMBERS



These percentages exclude GRPA, Securian, Money Market

Top Quartile Investments	
888 Asset Managers Scored	
322	Had at least one investment score a perfect zero
352	Had more than 50% of their investments score in the top half
57	Had all investments score in the 1 st quartile
113	Had more than 50% of their investments in the 1 st quartile
22,500	Count of investments in the 1 st quartile

Mutual Funds

666 Managers Scored

231 Asset managers have more than 50% of funds in the top half and

45 made the 1st quartile

24,237 Funds scored

17% Scored a perfect zero

CITs

161 Managers Scored

78 Asset managers have more than 50% of investments in the top half and **17 made the 1st quartile**

3,385 Investments scored

18% Scored a perfect zero

ETFs

66 Managers Scored

37 Asset managers have more than 50% of investments in the top half and **5 made the 1st quartile**

1,404 Investments scored

18% Scored a perfect zero

TDFs

24 Asset managers have more than 50% of funds in the top half and **10 made the 1st quartile**

2,524 MF TDFs scored

We average the scores of the underlying holdings for the TDF Series score

2017 | Q4 ASSET MANAGERS

287 asset managers had more than 50 percent of their investments score in the top half (Quartile 1 and 2 of the score; resulting in a score of 50 or less). 71 made the first quartile of the Fi360 Fiduciary Score®. Companies with only one investment, and/or less than 50 percent of investments in the top half, and/or those who have an overall Q4 2017 average score of greater than 50 have been excluded.

It is important to note that asset managers may report multiple names. For example, Principal Life Insurance Company and Principal Funds will appear as separate asset managers; Charles Schwab Bank appears separately from Schwab Funds, etc.

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
PRIMECAP Odyssey Funds	6	6	100%	\$58,837	0.0	0.0	↔
Sands Capital	3	3	100%	\$1,290	0.0	0.0	↔
ICM Series Trust	2	2	100%	\$1,543	0.0	0.0	↔
Credit Suisse Asset Management	3	3	100%	\$311	6.5	0.0	↑
GaveKal	3	3	100%	\$917	51.0	0.0	↑
Cohen & Steers Capital Management Inc	2	2	100%	\$193	0.0	0.0	↔
Fuller & Thaler	4	4	100%	\$481	0.0	0.0	↔
TCM Funds	2	2	100%	\$761	0.0	0.0	↔
Balter	3	3	100%	\$335	0.0	0.0	↔
Aligned Investors	2	2	100%	\$231	15.5	0.0	↑
Wasmer Schroeder	2	2	100%	\$235	0.0	0.0	↔
ATAC Fund	2	2	100%	\$234	0.0	0.0	↔
ACR Alpine Capital Research	2	2	100%	\$96	N/A	0.0	N/A
KCM	3	3	100%	\$189	0.0	0.0	↔
Edgar Lomax	4	4	100%	\$347	24.0	0.0	↑
Baillie Gifford Funds	33	33	100%	\$8,208	5.6	2.2	↑
Artisan Partners Holdings LP	4	4	100%	\$2,799	0.0	5.3	↓
bp capital	6	6	100%	\$319	13.3	6.0	↑
Grandeur Peak Funds	12	12	100%	\$2,933	8.9	6.7	↑
Commerce	13	13	100%	\$4,226	13.2	8.4	↑
Akre	4	4	100%	\$10,725	0.0	9.0	↓
Dana Investment	3	3	100%	\$242	20.7	9.0	↑
Foundry	3	3	100%	\$236	8.0	9.0	↓
Infinity Q	3	3	100%	\$330	10.7	9.3	↑
Principal Real Estate Investors	2	2	100%	\$692	40.5	10.0	↑
McKee Funds	2	2	100%	\$409	29.5	10.0	↑
Horizons ETF Trust I	2	2	100%	\$194	0.0	10.0	↓
Principal Portfolio Strategies	6	6	100%	\$1,017	44.8	10.7	↑
Victory Capital Management Inc.	4	4	100%	\$439	22.0	10.8	↑
Exchange Traded Concepts Trust	2	2	100%	\$2,352	15.0	11.0	↑
Barings Funds	10	9	90%	\$528	12.9	11.2	↑
Grant Park	5	5	100%	\$313	32.6	12.8	↑
Putnam Investments	6	6	100%	\$469	2.7	13.3	↓
Steben & Company	5	4	80%	\$89	33.5	13.6	↑

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
Kellner	3	3	100%	\$156	0.0	14.3	↓
Hood River Capital Management	4	4	100%	\$542	0.0	15.0	↓
Semper	7	7	100%	\$1,324	21.5	15.7	↑
Voya Investment Management Co. LLC (US)	18	15	83%	\$6,440	21.2	17.1	↑
Fidelity Management and Research Company	6	5	83%	\$18,412	10.8	17.3	↓
Acadian Funds	4	4	100%	\$1,999	0.0	17.8	↓
E-Valuator funds	8	8	100%	\$485	25.3	17.8	↑
Edgewood	2	2	100%	\$11,100	17.5	18.0	↓
Trust for Professional Mgrs(PTIA)	4	4	100%	\$2,635	18.0	18.0	↓
Investment House Funds	2	2	100%	\$204	17.5	18.0	↓
Allied Asset	2	2	100%	\$195	40.0	18.0	↑
Conductor	5	5	100%	\$88	18.0	18.0	↔
Tortoise Capital Advisors	8	7	88%	\$4,093	19.6	18.4	↑
KP Funds	14	12	86%	\$11,240	14.3	18.6	↓
Seafarer Funds	3	3	100%	\$5,110	22.0	18.7	↑
Investment Managers Series Trust	3	3	100%	\$357	17.0	18.7	↓
New York Life Insurance Company	24	20	83%	\$68,800	18.2	19.1	↓
Schwab ETFs	21	19	90%	\$92,290	19.3	19.2	↑
Tributary Funds	15	12	80%	\$1,405	26.3	19.4	↑
Selected Funds	6	6	100%	\$3,305	35.8	19.7	↑
Riverbridge	6	6	100%	\$96	20.5	19.7	↑
Vanguard Group Inc	11	11	100%	\$31,626	16.8	19.8	↓
EntrepreneurShares	6	6	100%	\$605	28.7	20.3	↑
TIAA Investments	440	372	85%	\$771,494	15.6	21.0	↓
Astor	8	7	88%	\$331	18.8	22.3	↓
Longboard	3	3	100%	\$544	31.0	22.7	↑
361 Funds	13	10	77%	\$1,586	23.9	22.8	↑
Mondrian	2	2	100%	\$1,147	21.5	23.5	↓
BlackRock Inc	85	70	82%	\$310,629	43.4	23.6	↑
WCM Investment Management	9	8	89%	\$5,498	36.3	24.0	↑
AEW Capital Management LP	3	3	100%	\$997	0.0	24.3	↓
Motley Fool	8	6	75%	\$1,296	35.1	24.9	↑
Oberweis	17	14	82%	\$4,323	29.1	24.9	↑
Value Line	20	16	80%	\$3,286	22.4	25.0	↓
Milestone	2	2	100%	\$414	23.0	25.0	↓
EIP Funds	2	2	100%	\$61	41.0	25.0	↑
Thrivent	89	71	80%	\$66,835	24.2	25.0	↓
Destra	4	3	75%	\$291	27.8	25.5	↑
Matthews Asia Funds	45	36	80%	\$39,260	30.6	25.6	↑
Wells Fargo Bank	83	65	78%	\$60,940	28.6	25.6	↑
Harding Loevner	20	16	80%	\$43,440	21.8	25.9	↓

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	Average Score of all Categories		Score Change
					Q3	Q4	
Fidelity Management & Research Company	2	2	100%	\$6,603	14.5	26.0	↓
MainGate Trust	4	4	100%	\$1,842	22.0	26.0	↓
JPMorgan Chase Bank N.A.	165	130	79%	\$88,774	26.7	26.3	↑
Meridian	22	18	82%	\$3,779	36.0	26.4	↑
Schwab Funds	106	82	77%	\$244,851	24.8	26.4	↓
Boston Partners	19	17	89%	\$13,768	24.2	26.5	↓
Gerstein Fisher	6	6	100%	\$1,375	10.0	26.7	↓
Covered Bridge	2	2	100%	\$66	36.0	27.0	↑
Long Short	2	2	100%	\$73	22.0	27.0	↓
Fidelity Institutional Asset Management	201	161	80%	\$54,441	25.1	27.1	↓
Fidelity Management Trust Co	8	5	63%	\$46,012	13.7	27.3	↓
Evermore	3	3	100%	\$683	0.0	27.3	↓
Cohen & Steers	86	65	76%	\$55,388	35.3	27.7	↑
Mirae Asset Global Investments	12	9	75%	\$343	38.8	27.8	↑
Principal Life Insurance Co	273	209	77%	\$891,466	32.7	28.1	↑
Blackstone	4	4	100%	\$5,545	47.0	28.3	↑
VALIC	49	38	78%	\$27,694	28.6	28.3	↑
Wilmington Trust N.A	96	77	80%	\$3,527	25.0	28.4	↓
CAMBRIA ETF TRUST	5	4	80%	\$462	45.3	28.6	↑
Minnesota Life Insurance Company	30	25	83%	\$2,786	30.5	28.7	↑
William Blair .	3	2	67%	\$2,756	29.0	29.0	↔
Polaris Funds	2	2	100%	\$1,077	0.0	29.0	↓
AAM	13	11	85%	\$783	36.8	29.1	↑
Dimensional Fund Advisors	741	578	78%	\$5,285,198	29.9	29.1	↑
Causeway	38	26	68%	\$136,227	45.3	29.5	↑
Leuthold	13	8	62%	\$1,838	22.9	29.7	↓
ETF Securities	4	3	75%	\$955	40.0	29.8	↑
Vanguard	3376	2530	75%	\$77,552,448	33.2	29.8	↑
Charles Schwab Bank	97	78	80%	\$84,867	21.9	29.8	↓
Trillium Mutual Funds	3	3	100%	\$758	19.7	30.0	↓
Oakmark	80	63	79%	\$1,120,801	26.3	30.0	↓
United of Omaha Life Insurance	22	14	64%	\$3,049	28.8	30.1	↓
Boston Partners Global Investors Inc	7	6	86%	\$2,715	27.6	30.1	↓
Northern Funds	124	93	75%	\$263,799	27.8	30.1	↓
MAI	3	3	100%	\$124	41.7	30.3	↑
Flexshares Trust	17	13	76%	\$13,647	25.6	30.9	↓
Bogle	2	2	100%	\$220	68.5	31.0	↑
VictoryShares	5	3	60%	\$1,711	39.8	31.4	↑
Liberty Street	12	8	67%	\$3,047	33.7	31.5	↑
LJM Funds	4	4	100%	\$1,025	38.0	31.5	↑

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
Community Capital Management	6	6	100%	\$2,254	14.8	31.7	↓
T. Rowe Price	2293	1574	69%	\$8,315,610	36.0	31.9	↑
AdvisorOne Funds	12	8	67%	\$1,507	42.0	31.9	↑
AT Funds	5	5	100%	\$3,258	26.4	32.0	↓
ARK ETF Trust	4	3	75%	\$728	17.0	32.0	↓
Boston Company Asset Management LLC	3	2	67%	\$274	29.0	32.0	↓
Provident	2	2	100%	\$300	30.0	32.0	↓
Towle	2	2	100%	\$253	3.0	32.0	↓
WisdomTree	112	81	72%	\$142,329	38.4	32.0	↑
Reliance Trust Company	43	35	81%	\$8,916	33.1	32.1	↑
State Street Global Advisors	567	442	78%	\$4,093,078	29.8	32.6	↓
Comerica Bank	8	7	88%	\$182	51.7	32.6	↑
Appleseed Fund	3	3	100%	\$276	69.0	32.7	↑
Driehaus	13	8	62%	\$3,408	27.3	32.7	↓
Homestead	15	13	87%	\$5,559	32.9	32.7	↑
Elessar Investment Management	5	4	80%	\$8	31.4	32.8	↓
Wanger	33	24	73%	\$9,379	22.6	32.8	↓
Cognios	3	3	100%	\$86	75.0	33.0	↑
Mairs & Power	5	4	80%	\$7,139	32.6	33.2	↓
Anfield	4	3	75%	\$176	34.3	33.3	↑
Principal Funds	1091	741	68%	\$840,839	34.8	33.3	↑
Great-West Trust Company LLC	11	8	73%	\$846	50.7	33.3	↑
MFS Investment Management	20	15	75%	\$5,543	43.4	33.4	↑
Champlain Funds	7	6	86%	\$4,688	31.8	33.4	↓
Altegris	18	13	72%	\$1,198	43.3	33.4	↑
Wellington Management Company LLP	27	18	67%	\$5,398	35.8	33.6	↑
Becker	3	3	100%	\$580	36.3	33.7	↑
CRM	31	19	61%	\$4,318	40.6	33.7	↑
LSV Fund	18	13	72%	\$2,959	30.2	33.8	↓
SEI Trust Company	19	13	68%	\$1,733	31.4	34.0	↓
Vident Financial	3	2	67%	\$1,298	17.0	34.0	↓
Credit Suisse (New York NY)	26	20	77%	\$8,819	28.5	34.0	↓
Glenmede	29	21	72%	\$20,181	32.0	34.1	↓
Innealta Capital	6	4	67%	\$112	38.8	34.2	↑
Baird	87	51	59%	\$567,626	38.7	34.4	↑
Invesco Advisers Inc	30	19	63%	\$13,614	35.8	34.6	↑
Great-West Funds	181	128	71%	\$33,101	26.6	34.6	↓

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
JAG Capital Management LLC	3	3	100%	\$68	33.3	34.7	↓
Redwood	4	4	100%	\$541	34.5	35.0	↓
Market Vectors	4	3	75%	\$27	38.5	35.0	↑
USAA	140	94	67%	\$93,840	41.7	35.5	↑
iShares	316	216	68%	\$1,311,816	34.7	35.5	↓
Wisconsin Capital Management	4	4	100%	\$132	40.0	35.8	↑
Baron Capital Group	88	54	61%	\$52,671	31.6	35.9	↓
Galliard Capital Management Inc.	21	13	62%	\$317,034	31.0	36.1	↓
Diamond Hill Funds	84	63	75%	\$40,004	39.9	36.1	↑
Harbor	210	142	68%	\$511,818	41.0	36.3	↑
Macquarie Investment Management	14	11	79%	\$2,299	36.5	36.6	↓
Stadion Funds	20	13	65%	\$829	28.9	36.6	↓
Schroder	6	4	67%	\$2,298	45.3	36.7	↑
Hundredfold	3	2	67%	\$54	27.7	36.7	↓
AllianceBernstein	1100	746	68%	\$535,491	39.5	36.8	↑
SPDR State Street Global Advisors	110	74	67%	\$547,314	33.9	36.9	↓
Dupree	11	8	73%	\$1,367	42.0	36.9	↑
Counterpoint Mutual Funds	4	4	100%	\$525	N/A	37.0	N/A
DoubleLine	92	66	72%	\$823,846	33.0	37.3	↓
Alerus Financial Corp	10	8	80%	\$243	37.4	37.3	↑
State Street Global Advisors Ltd	56	38	68%	\$132,590	47.6	37.3	↑
Transamerica	442	295	67%	\$78,586	40.5	37.3	↑
Harvest Funds	2	2	100%	\$32	36.0	37.5	↓
American Funds	4202	2693	64%	\$14,995,333	38.1	37.5	↑
PIA Mutual Funds	8	6	75%	\$690	38.3	37.6	↑
Nuveen Fund Advisors LLC.	5	4	80%	\$918	34.6	37.8	↓
SA Funds	27	15	56%	\$5,570	37.6	37.8	↓
Polen Capital	5	3	60%	\$1,827	22.0	38.0	↓
AlphaMark	2	2	100%	\$50	81.5	38.0	↑
Emerald	15	10	67%	\$2,189	35.9	38.2	↓
William Blair	108	68	63%	\$18,889	36.0	38.2	↓
Buffalo	24	15	63%	\$12,126	41.2	38.3	↑
Jackson National	209	129	62%	\$149,669	38.4	38.3	↑
PGIM Inc	34	25	74%	\$28,858	40.4	38.3	↑
Segall Bryant & Hamill	10	8	80%	\$583	44.1	38.5	↑
Thompson IM Funds Inc	6	4	67%	\$5,314	49.5	38.7	↑
Voya	1541	1028	67%	\$373,337	40.5	38.7	↑
JPMorgan	2370	1495	63%	\$2,735,768	33.9	38.8	↓
ProShares	115	71	62%	\$21,984	38.8	39.0	↓
GuideStone Funds	64	40	63%	\$18,373	38.8	39.0	↓
Torrey	2	2	100%	\$896	39.5	39.0	↑
First Western Capital Mgt	4	4	100%	\$391	37.7	39.0	↓

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
American Century Investment Management Inc	31	19	61%	\$4,530	34.2	39.1	↓
Ashmore	28	16	57%	\$1,935	33.9	39.4	↓
1290 Funds	24	21	88%	\$159	N/A	39.7	N/A
GMO	62	42	68%	\$43,840	46.8	39.8	↑
GE Asset Management	8	5	63%	\$5,645	38.1	40.0	↓
NorthCoast	2	2	100%	\$126	47.5	40.0	↑
Northern Trust Investments Inc.	15	9	60%	\$586	36.1	40.1	↓
UBS Group AG	25	15	60%	\$913	40.6	40.1	↑
Carillon Family of Funds	155	96	62%	\$25,468	40.2	40.2	↑
Deutsche Bank AG	18	11	61%	\$204	39.1	40.2	↓
BNY Mellon Funds	71	49	69%	\$24,885	39.7	40.3	↓
SEI	195	127	65%	\$101,651	45.5	40.7	↑
Columbia	1529	978	64%	\$435,965	40.7	40.9	↓
Loomis Sayles & Co.	12	12	100%	\$2,710	53.5	41.0	↑
Pzena	9	7	78%	\$72	53.3	41.6	↑
World Funds Trust	3	2	67%	\$41	38.7	41.7	↓
First Trust	108	68	63%	\$42,875	39.2	41.9	↓
John Hancock	2700	1571	58%	\$1,296,006	43.3	42.0	↑
Muzinich	4	3	75%	\$387	24.3	42.0	↓
Reinhartfunds	4	4	100%	\$373	56.8	42.3	↑
Janus Henderson	1556	905	58%	\$1,078,640	43.5	42.3	↑
Natixis Funds	243	148	61%	\$126,129	44.1	42.4	↑
Bridgeway	20	12	60%	\$5,452	41.6	42.5	↓
Aquila	33	18	55%	\$2,525	40.3	42.5	↓
Dreyfus	488	285	58%	\$251,203	44.9	42.6	↑
Delaware Funds by Macquarie	368	229	62%	\$99,471	50.3	42.7	↑
Parnassus	79	51	65%	\$140,165	47.4	42.8	↑
Prudential Retirement Services	495	298	60%	\$125,616	42.7	42.9	↓
Matthew 25	2	2	100%	\$845	75.0	43.0	↑
Westfield Capital	5	4	80%	\$208	37.0	43.0	↓
Mellon Capital Management Corporation	74	55	74%	\$97,019	43.9	43.0	↑
Principal Global Investors Trust Company	132	74	56%	\$26,783	36.5	43.1	↓
Jensen	8	5	63%	\$9,316	47.3	43.3	↑
Goldman Sachs Trust Company NA	5	5	100%	\$696	64.8	43.4	↑
Adirondack Funds	2	2	100%	\$502	49.0	43.5	↑
BMO Funds	159	94	59%	\$14,284	45.3	43.6	↑
Hartford Mutual Funds	1362	797	59%	\$226,243	35.5	43.7	↓
FAM	8	5	63%	\$2,945	23.0	43.8	↓
Chase	6	6	100%	\$157	58.3	43.8	↑
Quantitative Management Associates LLC	12	7	58%	\$2,985	42.8	43.9	↓
1919 Funds	12	7	58%	\$595	38.8	44.0	↓

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
Ameriprise Trust Company	64	38	59%	\$6,779	43.5	44.0	↓
DF Dent Funds	7	5	71%	\$386	40.6	44.1	↓
Dodge & Cox	61	37	61%	\$2,055,905	39.4	44.2	↓
Pacific Investment Management Co LLC	14	11	79%	\$2,324	50.3	44.3	↑
BTS	5	5	100%	\$1,150	36.8	44.6	↓
BMO Harris Bank NA	6	4	67%	\$1,459	49.5	44.7	↑
Johnson Mutual Funds	21	17	81%	\$2,704	47.7	44.7	↑
Vivaldi	3	3	100%	\$164	28.3	44.7	↓
Boston Trust & Walden Funds	20	12	60%	\$2,103	57.0	44.7	↑
Mutual of America	7	5	71%	\$125	43.3	44.7	↓
Aristotle	6	4	67%	\$230	48.5	45.0	↑
American Beacon	235	129	55%	\$68,438	37.8	45.1	↓
Pimco	1529	920	60%	\$6,103,177	46.9	45.2	↑
PowerShares	129	73	57%	\$118,343	44.2	45.5	↓
American Independence	15	9	60%	\$559	41.8	45.5	↓
Pioneer Investments	429	230	54%	\$134,608	38.9	45.5	↓
MFS	2555	1356	53%	\$1,367,478	50.0	45.6	↑
Nuveen	546	280	51%	\$141,403	44.3	45.6	↓
ICMA-RC	133	69	52%	\$20,357	43.9	45.7	↓
Champlain Investment Partners LLC	2	2	100%	\$598	40.0	46.0	↓
CG funds	2	2	100%	\$13	44.0	46.0	↓
Fidelity Investments	2550	1385	54%	\$6,359,919	46.3	46.4	↓
Boston Company Asset Mgmt LLC	7	4	57%	\$618	43.0	46.4	↓
Palmer Square	8	5	63%	\$1,188	45.0	46.5	↓
Eaton Vance	724	414	57%	\$264,745	46.0	46.5	↓
Frost Funds	21	14	67%	\$3,765	50.8	46.6	↑
Loomis Sayles Funds	97	58	60%	\$34,322	39.5	46.8	↓
Wilshire Mutual Funds	22	14	64%	\$1,247	44.8	46.8	↓
Victory	517	292	56%	\$205,289	52.3	47.0	↑
Cedar Ridge	3	2	67%	\$79	27.0	47.0	↓
LoCorr Funds	20	14	70%	\$1,747	42.8	47.1	↓
Alpine	25	13	52%	\$1,407	47.2	47.3	↓
Morgan Stanley	314	167	53%	\$147,836	50.4	47.4	↑
Bernzott Capital Advisors	2	2	100%	\$156	39.5	47.5	↓
Loomis Sayles & Company LP	12	9	75%	\$5,470	60.1	48.0	↑
Waddell & Reed Investment Management Co	4	3	75%	\$216	30.5	48.0	↓
Allianz Global Investors	2	2	100%	\$328	53.0	48.0	↑
Prudential Funds (PGIM Investments)	636	324	51%	\$547,531	47.7	48.0	↓
Guggenheim Investments	227	124	55%	\$176,541	46.5	48.2	↓
Hennessy	40	25	63%	\$6,662	49.5	48.4	↑

2017 | Q4 ASSET MANAGERS (cont)

Asset Manager Name	Number of Investments Scored	Number of Investments in Top Half	Percent of Investments in Top Half	Assets in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
Putnam	775	400	52%	\$257,861	43.8	48.4	↓
Praxis Mutual Funds	21	12	57%	\$1,517	46.5	48.4	↓
Earnest Partners LLC	2	2	100%	\$1,559	25.0	48.5	↓
Mutualhedge	4	3	75%	\$274	37.5	48.8	↓
Artisan	64	34	53%	\$41,084	48.7	48.8	↓
OppenheimerFunds	1756	898	51%	\$2,083,610	48.5	48.9	↓
MassMutual	1694	881	52%	\$174,196	39.0	48.9	↓
Smith Group	3	3	100%	\$94	47.7	49.3	↓
AlphaOne Capital Partners.	3	2	67%	\$171	35.0	49.7	↓
USCF Investments	11	6	55%	\$754	50.9	49.8	↑
Kopernik	3	3	100%	\$1,237	64.7	50.0	↑
Superfund	2	2	100%	\$6	91.0	50.0	↑

2017 | Q4 OPEN-END MUTUAL FUNDS

180 asset managers had more than 50 percent of their mutual fund (MF) investments score in the top half (Quartile 1 and 2). 45 made the first quartile. Companies with only one investment, and/or less than 50 percent of investments in the top half, and/or those who have an overall Q4 2017 average score of greater than 50 have been excluded.

Asset Manager Name	Number of MF Scored	Number of MF in Top Half	Percent of MF in Top Half	MF in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
PRIMECAP Odyssey Funds	3	3	100%	\$29,418	0.0	0.0	↔
Sands Capital	2	2	100%	\$1,281	0.0	0.0	↔
GaveKal	2	2	100%	\$485	50.0	0.0	↑
Fuller & Thaler	3	3	100%	\$387	0.0	0.0	↔
Balter	2	2	100%	\$169	0.0	0.0	↔
ACR Alpine Capital Research	2	2	100%	\$96	N/A	0.0	N/A
KCM	2	2	100%	\$95	0.0	0.0	↔
Baillie Gifford Funds	33	33	100%	\$8,208	5.6	2.2	↑
Grandeur Peak Funds	8	8	100%	\$2,565	10.9	7.9	↑
Commerce	8	8	100%	\$2,532	14.4	8.5	↑
bp capital	4	4	100%	\$278	16.0	9.0	↑
Foundry	2	2	100%	\$196	9.0	9.0	↔
Kellner	2	2	100%	\$152	0.0	9.5	↓
Akre	3	3	100%	\$6,906	0.0	12.0	↓
Dana Investment	2	2	100%	\$200	31.0	13.5	↑
Barings Funds	8	7	88%	\$371	16.1	14.0	↑
Infinity Q	2	2	100%	\$173	16.0	14.0	↑
Hood River Capital Management	3	3	100%	\$295	0.0	15.0	↓
Semper	5	5	100%	\$1,208	18.6	15.2	↑
TIAA Investments	260	228	88%	\$159,339	12.4	15.6	↓
Grant Park	4	4	100%	\$289	33.5	16.0	↑
Steben & Company	4	3	75%	\$79	33.5	17.0	↑
E-Valuator funds	8	8	100%	\$485	25.3	17.8	↑
Edgewood	2	2	100%	\$11,100	17.5	18.0	↓
Seafarer Funds	2	2	100%	\$3,042	23.0	18.0	↑
Acadian Funds	3	3	100%	\$1,233	0.0	18.0	↓
Tributary Funds	10	8	80%	\$1,137	25.7	18.3	↑
KP Funds	14	12	86%	\$11,240	14.3	18.6	↓
Tortoise Capital Advisors	6	5	83%	\$3,656	18.7	18.7	↔
Investment Managers Series Trust	2	2	100%	\$355	17.0	19.0	↓
Vanguard	270	244	90%	\$3,623,275	22.1	19.4	↑
Riverbridge	4	4	100%	\$92	20.5	19.5	↑
Selected Funds	4	4	100%	\$2,359	35.8	19.8	↑

2017 | Q4 OPEN-END MUTUAL FUNDS (cont)

Asset Manager Name	Number of MF Scored	Number of MF in Top Half	Percent of MF in Top Half	MF in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
Motley Fool	5	4	80%	\$694	32.4	20.0	↑
Dimensional Fund Advisors	90	81	90%	\$410,858	19.9	20.2	↓
Conductor	4	4	100%	\$85	22.5	22.5	↔
EntrepreneurShares	3	3	100%	\$302	32.0	22.7	↑
Schwab Funds	42	35	83%	\$77,718	18.4	22.7	↓
361 Funds	9	7	78%	\$1,018	24.5	23.2	↑
T. Rowe Price	315	267	85%	\$720,356	24.2	23.8	↑
Trust for Professional Mgrs(PTIA)	3	3	100%	\$1,425	24.0	24.0	↔
Evermore	2	2	100%	\$606	0.0	24.0	↓
Longboard	2	2	100%	\$473	31.0	24.0	↑
Boston Partners	12	11	92%	\$12,209	20.9	24.9	↓
EIP Funds	2	2	100%	\$61	41.0	25.0	↑
Westchester Capital	4	3	75%	\$2,410	4.5	25.8	↓
Astor	6	5	83%	\$192	23.2	26.0	↓
WCM Investment Management	6	5	83%	\$5,306	36.3	26.5	↑
Matthews Asia Funds	30	24	80%	\$26,230	31.2	26.8	↑
VALIC	47	38	81%	\$27,694	26.9	27.0	↓
Muzinich	3	3	100%	\$387	24.3	27.0	↓
Covered Bridge	2	2	100%	\$66	36.0	27.0	↑
Value Line	13	10	77%	\$1,653	25.0	27.7	↓
Thrivent	66	51	77%	\$55,501	25.7	27.8	↓
Dodge & Cox	6	5	83%	\$149,157	19.2	28.0	↓
Blackstone	3	3	100%	\$5,325	32.0	28.0	↑
AT Funds	3	3	100%	\$1,796	22.3	28.0	↓
MainGate Trust	3	3	100%	\$1,694	24.0	28.0	↓
MAI	2	2	100%	\$123	42.0	28.0	↑
Driehaus	7	5	71%	\$2,594	26.4	28.1	↓
Trillium Mutual Funds	2	2	100%	\$501	14.0	29.0	↓
Meridian	18	14	78%	\$3,668	35.7	29.6	↑
Paydenfunds	30	23	77%	\$7,128	32.3	30.1	↑
Gerstein Fisher	3	3	100%	\$688	10.3	30.3	↓
Harding Loevner	14	11	79%	\$22,806	24.9	30.5	↓
Homestead	7	6	86%	\$2,141	30.1	30.7	↓
DoubleLine	21	15	71%	\$71,485	23.4	30.8	↓
Oberweis	11	8	73%	\$2,122	36.4	31.2	↑
Mairs & Power	3	2	67%	\$1,420	32.7	31.3	↑
LJM Funds	3	3	100%	\$847	38.0	32.3	↑
State Street Global Advisors	75	55	73%	\$13,055	35.7	32.4	↑
LSV Fund	12	9	75%	\$2,808	29.4	32.5	↓
Leuthold	8	5	63%	\$1,159	24.9	32.6	↓
Mirae Asset Global Investments	9	6	67%	\$306	41.9	32.7	↑
Causeway	12	8	67%	\$13,736	44.7	32.8	↑
Community Capital Management	4	4	100%	\$2,165	8.0	32.8	↓

2017 | Q4 OPEN-END MUTUAL FUNDS (cont)

Asset Manager Name	Number of MF Scored	Number of MF in Top Half	Percent of MF in Top Half	MF in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
Baron Capital Group	39	28	72%	\$20,488	31.9	32.9	↓
Columbia	743	542	73%	\$138,689	32.4	33.0	↓
Glenmede	17	13	76%	\$12,130	30.4	33.1	↓
Loomis Sayles Funds	22	18	82%	\$7,241	32.0	33.5	↓
AAM	10	8	80%	\$680	41.4	33.5	↑
Liberty Street	9	6	67%	\$2,663	35.0	33.9	↑
USAA	95	65	68%	\$58,821	40.1	34.0	↑
Destra	3	2	67%	\$236	37.0	34.0	↑
JPMorgan	582	410	70%	\$314,835	31.2	34.0	↓
Northern Funds	37	24	65%	\$42,242	34.1	34.1	↑
Elessar Investment Management	4	3	75%	\$8	32.5	34.3	↓
Dupree	10	8	80%	\$1,367	42.0	34.3	↑
William Blair	49	33	67%	\$8,705	34.8	34.3	↑
Redwood	3	3	100%	\$470	35.0	35.0	↔
Appleseed Fund	2	2	100%	\$187	67.0	35.0	↑
Great-West Funds	135	96	71%	\$25,839	26.5	35.2	↓
Cohen & Steers	50	32	64%	\$20,956	39.6	35.3	↑
Wisconsin Capital Management	2	2	100%	\$66	45.5	35.5	↑
Altegris	14	10	71%	\$1,064	44.0	35.7	↑
Champlain Funds	5	4	80%	\$3,446	34.0	35.8	↓
Thompson IM Funds Inc	3	2	67%	\$2,657	49.0	36.0	↑
Voya	539	361	67%	\$78,061	37.4	36.1	↑
Macquarie Investment Management	6	5	83%	\$1,003	41.8	36.2	↑
Pioneer Investments	113	77	68%	\$38,485	38.8	37.0	↑
Diamond Hill Funds	37	25	68%	\$13,956	39.0	37.2	↑
Credit Suisse (New York NY)	19	13	68%	\$7,899	32.1	37.2	↓
SA Funds	18	10	56%	\$3,004	37.5	37.3	↑
First Western Capital Mgt	2	2	100%	\$196	37.5	37.5	↔
Cognios	2	2	100%	\$62	71.5	37.5	↑
Harvest Funds	2	2	100%	\$32	36.0	37.5	↓
Transamerica	284	185	65%	\$38,917	39.1	37.6	↑
Counterpoint Mutual Funds	3	3	100%	\$405	N/A	37.7	N/A
Jackson National	207	129	62%	\$149,669	37.8	37.9	↓
Becker	2	2	100%	\$448	36.0	38.0	↓
JAG Capital Management LLC	2	2	100%	\$64	37.0	38.0	↓
Principal Funds	475	302	64%	\$156,401	38.4	38.2	↑
Emerald	12	8	67%	\$1,733	37.0	38.7	↓
Anfield	3	2	67%	\$145	39.7	38.7	↑
Segall Bryant & Hamill	6	5	83%	\$469	41.3	38.8	↑
Pax World	18	10	56%	\$3,520	44.3	39.0	↑
American Funds	754	479	64%	\$1,460,125	38.6	39.2	↓
1290 Funds	12	10	83%	\$77	N/A	39.8	N/A
Hartford Mutual Funds	458	284	62%	\$93,263	38.0	39.8	↓

2017 | Q4 OPEN-END MUTUAL FUNDS (cont)

Asset Manager Name	Number of MF Scored	Number of MF in Top Half	Percent of MF in Top Half	MF in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
American Beacon	110	78	71%	\$27,835	37.5	40.0	↓
Fidelity Investments	942	584	62%	\$1,518,699	40.5	40.0	↑
Stadion Funds	16	10	63%	\$537	30.6	40.0	↓
PIA Mutual Funds	4	3	75%	\$345	40.0	40.0	↔
GMO	61	41	67%	\$43,837	47.1	40.5	↑
SEI	139	92	66%	\$75,304	41.5	40.6	↑
GuideStone Funds	44	26	59%	\$13,545	39.7	41.0	↓
AllianceBernstein	396	241	61%	\$68,399	44.5	41.1	↑
BNY Mellon Funds	50	33	66%	\$13,431	41.4	41.3	↑
Artisan	33	20	61%	\$25,557	39.5	41.5	↓
MassMutual	343	200	58%	\$21,931	39.6	42.0	↓
John Hancock	598	353	59%	\$162,389	42.4	42.1	↑
Pzena	6	5	83%	\$66	53.3	42.2	↑
Aquila	31	17	55%	\$2,484	40.4	42.3	↓
Parnassus	12	9	75%	\$15,592	46.8	42.3	↑
Allianz Funds	227	131	58%	\$12,616	49.1	42.5	↑
Jensen	6	4	67%	\$6,556	45.7	42.5	↑
Natixis Funds	104	62	60%	\$37,440	40.5	42.7	↓
Bridgeway	10	6	60%	\$2,726	40.8	42.7	↓
Dreyfus	269	155	58%	\$47,676	45.0	42.8	↑
Reinhartfunds	3	3	100%	\$196	56.7	43.0	↑
Van Eck	19	10	53%	\$3,071	41.4	43.3	↓
Carillon Family of Funds	105	62	59%	\$12,701	45.4	43.3	↑
Oakmark	27	18	67%	\$84,946	29.9	43.3	↓
Chase	4	4	100%	\$100	60.5	43.8	↑
Ashmore	21	11	52%	\$1,883	38.4	43.8	↓
Janus Henderson	354	205	58%	\$117,966	40.8	43.9	↓
MFS	645	370	57%	\$219,956	47.6	43.9	↑
Vivaldi	2	2	100%	\$141	42.5	44.0	↓
BTS	4	4	100%	\$917	37.8	44.3	↓
Johnson Mutual Funds	11	9	82%	\$1,414	49.7	44.3	↑
Nuveen	356	192	54%	\$61,980	47.2	44.6	↑
Calvert Investments	67	40	60%	\$9,207	53.1	44.7	↑
Mutual of America	6	4	67%	\$103	43.0	44.8	↓
Alger	79	40	51%	\$12,698	47.2	45.2	↑
AXA Equitable	216	120	56%	\$107,023	44.4	45.2	↓
Pimco	427	247	58%	\$326,171	45.5	45.2	↑
Westfield Capital	4	3	75%	\$208	38.3	45.3	7
Aristotle	3	2	67%	\$115	53.0	45.3	↑
FAM	5	3	60%	\$1,484	24.0	45.6	↓
GE Asset Management	7	4	57%	\$5,535	43.6	45.7	↓

2017 | Q4 OPEN-END MUTUAL FUNDS (cont)

Asset Manager Name	Number of MF Scored	Number of MF in Top Half	Percent of MF in Top Half	MF in Top Half (millions)	2017 Average Score		Score Change
					Q3	Q4	
BMO Funds	109	58	53%	\$6,633	46.7	45.8	↑
Thornburg	86	48	56%	\$34,760	45.5	46.2	↓
Wilshire Mutual Funds	12	8	67%	\$596	43.2	46.2	↓
Boston Trust & Walden Funds	10	6	60%	\$1,051	60.5	46.3	↑
BlackRock	463	245	53%	\$224,792	47.4	46.3	↑
Victory	178	98	55%	\$27,493	52.0	47.4	↑
LoCorr Funds	15	10	67%	\$1,547	44.3	47.7	↓
Eaton Vance	304	161	53%	\$65,110	48.6	47.8	↑
AMG Funds	135	74	55%	\$17,881	45.4	48.1	↓
Palmer Square	5	3	60%	\$737	42.4	48.6	↓
DF Dent Funds	5	3	60%	\$194	45.0	48.6	↓
Legg Mason	334	169	51%	\$75,041	48.0	48.7	↓
American Independence	12	7	58%	\$473	46.1	48.8	↓
Hennessy	26	16	62%	\$3,528	50.0	48.8	↑
Smith Group	2	2	100%	\$47	47.0	49.0	↓
Direxion Funds	15	9	60%	\$486	48.9	49.2	↓
Wasatch	32	17	53%	\$5,278	51.4	49.4	↑
Praxis Mutual Funds	13	7	54%	\$1,224	49.0	49.8	↓
Kopernik	2	2	100%	\$1,165	63.0	50.0	↑
Superfund	2	2	100%	\$6	91.0	50.0	↑

2017 | Q4 EXCHANGE-TRADED FUNDS (ETFs)

27 managers had more than 50 percent of their exchange-traded funds (ETFs) score in the top half (Quartile 1 and 2). Five made the first quartile. Companies with only one investment, and/or less than 50 percent of investments in the top half, and/or those who have an overall Q4 2017 average score of greater than 50 have been excluded. It is important to note that asset managers may report other exchange traded products in this category.

Asset Manager Name	Number of ETFs Scored	Number of ETFs in Top Half	Percent of ETFs in Top Half	ETF Assets in Top Half (millions)	2017 Average Score of all ETFs		Score Change
					Q3	Q4	
Fidelity Investments	14	14	100%	\$7,868	5.6	7.9	↓
Horizons ETF Trust I	2	2	100%	\$194	0.0	10.0	↓
Exchange Traded Concepts Trust	2	2	100%	\$2,352	15.0	11.0	↑
Vanguard	67	62	93%	\$749,625	23.5	18.9	↑
Schwab ETFs	21	19	90%	\$92,290	19.3	19.2	↑
CAMBRIA ETF TRUST	5	4	80%	\$462	45.3	28.6	↑
ETF Securities	4	3	75%	\$955	40.0	29.8	↑
Flexshares Trust	17	13	76%	\$13,647	25.6	30.9	↓
VictoryShares	5	3	60%	\$1,711	39.8	31.4	↑
ARK ETF Trust	4	3	75%	\$728	17.0	32.0	↓
iShares	265	198	75%	\$1,189,138	31.4	32.4	↓
Vident Financial	3	2	67%	\$1,298	17.0	34.0	↓
Market Vectors	4	3	75%	\$27	38.5	35.0	↑
SPDR State Street Global Advisors	110	74	67%	\$547,314	33.9	36.9	↓
OppenheimerFunds	5	4	80%	\$1,819	36.4	38.6	↓
ProShares	115	71	62%	\$21,984	38.8	39.0	↓
UBS Group AG	25	15	60%	\$913	40.6	40.1	↑
Deutsche Bank AG	18	11	61%	\$204	39.1	40.2	↓
ALPS	11	7	64%	\$13,693	37.6	40.3	↓
First Trust	94	60	64%	\$42,412	38.3	40.3	↓
Pimco	12	9	75%	\$12,055	53.8	43.8	↑
Guggenheim Investments	63	34	54%	\$29,141	41.1	44.4	↓
WisdomTree	59	32	54%	\$29,725	43.8	44.6	↓
PowerShares	129	73	57%	\$118,343	44.2	45.5	↓
JPMorgan	3	2	67%	\$1,387	60.5	45.7	↑
USCF Investments	11	6	55%	\$754	50.9	49.8	↑
Van Eck	49	25	51%	\$29,527	51.5	49.9	↑

2017 | Q4 COLLECTIVE INVESTMENT TRUSTS (CITS)

59 managers had more than 50 percent of their collective investment trusts (CITs) score in the top half (Quartile 1 and 2). 17 made the first quartile. Companies with only one investment, and/or less than 50 percent of investments in the top half, have been excluded from this analysis.

Of those managers with ten or more scored investments, T. Rowe Price (with 135 investments scored) is notable with 127 of those investments, 94%, landing in the first quartile relative to category peers. They are the only CIT manager with more than 15 investments scored and an average score of 10 or less. Others with ten or more investments scored that have averages in the top quartile are Voya, Vanguard Group, Putnam, Blackrock, and JP Morgan.

Asset Manager Name	Number of CITs Scored	Number of CITs in Top Half	Percent of CITs in Top Half	CIT Assets in Top Half (millions)	2017 Average Score of all CITs		Score Change
					Q3	Q4	
Credit Suisse Asset Management	3	3	100%	\$311	6.5	0.0	↑
Aligned Investors	2	2	100%	\$231	15.5	0.0	↑
Cohen & Steers Capital Management Inc	2	2	100%	\$193	0.0	0.0	↔
Artisan Partners Holdings LP	4	4	100%	\$2,799	0.0	5.3	↓
T. Rowe Price	135	127	94%	\$62,703	20.5	7.6	↑
Principal Real Estate Investors	2	2	100%	\$692	40.5	10.0	↑
Principal Portfolio Strategies	6	6	100%	\$1,017	44.8	10.7	↑
Victory Capital Management Inc.	4	4	100%	\$439	22.0	10.8	↑
New York Life Insurance Company	4	4	100%	\$13,760	7.3	13.0	↓
Putnam Investments	6	6	100%	\$469	2.7	13.3	↓
Voya Investment Management Co. LLC (US)	18	15	83%	\$6,440	21.2	17.1	↑
Fidelity Management and Research Company	6	5	83%	\$18,412	10.8	17.3	↓
Vanguard Group Inc	11	11	100%	\$31,626	16.8	19.8	↓
Putnam	64	56	88%	\$68,713	9.7	22.8	↓
BlackRock Inc	85	70	82%	\$310,629	43.4	23.6	↑
AEW Capital Management LP	3	3	100%	\$997	0.0	24.3	↓
JPMorgan Chase Bank N.A.	159	128	81%	\$88,020	24.8	24.8	↓
Wells Fargo Bank	83	65	78%	\$60,940	28.6	25.6	↑
Fidelity Management & Research Company	2	2	100%	\$6,603	14.5	26.0	↓
Fidelity Institutional Asset Management	201	161	80%	\$54,441	25.1	27.1	↓
Fidelity Management Trust Co	8	5	63%	\$46,012	13.7	27.3	↓
William Blair .	3	2	67%	\$2,756	29.0	29.0	↔
Wilmington Trust N.A	88	69	78%	\$3,436	25.8	29.5	↓
Boston Partners Global Investors Inc	7	6	86%	\$2,715	27.6	30.1	↓
Charles Schwab Bank	72	57	79%	\$64,831	22.0	30.9	↓
Boston Company Asset Management LLC	3	2	67%	\$274	29.0	32.0	↓
Comerica Bank	8	7	88%	\$182	51.7	32.6	↑
Great-West Trust Company LLC	11	8	73%	\$846	50.7	33.3	↑
MFS Investment Management	20	15	75%	\$5,543	43.4	33.4	↑

2017 | Q4 COLLECTIVE INVESTMENT TRUSTS (CITS) (cont)

Asset Manager Name	Number of CITS Scored	Number of CITS in Top Half	Percent of CITS in Top Half	CIT Assets in Top Half (millions)	2017 Average Score of all CITS		Score Change
					Q3	Q4	
SEI Trust Company	19	13	68%	\$1,733	31.4	34.0	↓
Reliance Trust Company	40	32	80%	\$5,539	34.8	34.5	↑
Galliard Capital Management Inc.	17	11	65%	\$260,565	32.8	34.5	↓
Wellington Management Company LLP	25	16	64%	\$5,063	38.8	35.1	↑
Invesco Advisers Inc	29	18	62%	\$13,266	37.0	35.8	↑
State Street Global Advisors	216	157	73%	\$2,560,679	38.0	37.2	↑
Alerus Financial Corp	10	8	80%	\$243	37.4	37.3	↑
State Street Global Advisors Ltd	56	38	68%	\$132,590	47.6	37.3	↑
Nuveen Fund Advisors LLC.	5	4	80%	\$918	34.6	37.8	↓
PGIM Inc	34	25	74%	\$28,858	40.4	38.3	↑
American Century Investment Management Inc	31	19	61%	\$4,530	34.2	39.1	↓
Macquarie Investment Management	6	4	67%	\$682	33.4	40.0	↓
Northern Trust Investments Inc.	15	9	60%	\$586	36.1	40.1	↓
BlackRock Institutional Trust Company NA	24	14	58%	\$88,831	43.1	40.7	↑
Mellon Capital Management Corporation	63	47	75%	\$73,963	43.9	41.1	↑
Principal Global Investors Trust Company	132	74	56%	\$26,783	36.5	43.1	↓
Goldman Sachs Trust Company NA	5	5	100%	\$696	64.8	43.4	↑
Quantitative Management Associates LLC	12	7	58%	\$2,985	42.8	43.9	↓
Pacific Investment Management Co LLC	14	11	79%	\$2,324	50.3	44.3	↑
BMO Harris Bank NA	6	4	67%	\$1,459	49.5	44.7	↑
Ameriprise Trust Company	62	36	58%	\$6,408	45.0	45.5	↓
ICMA-RC	133	69	52%	\$20,357	43.9	45.7	↓
Champlain Investment Partners LLC	2	2	100%	\$598	40.0	46.0	↓
Boston Company Asset Mgmt LLC	7	4	57%	\$618	43.0	46.4	↓
Loomis Sayles & Company LP	12	9	75%	\$5,470	60.1	48.0	↑
Allianz Global Investors	2	2	100%	\$328	53.0	48.0	↑
Waddell & Reed Investment Management Co	4	3	75%	\$216	30.5	48.0	↓
Earnest Partners LLC	2	2	100%	\$1,559	25.0	48.5	↓
Vanguard	45	34	76%	\$134,001	51.6	48.9	↑
Federated Investors	6	4	67%	\$3,928	53.2	52.8	↑

2017 | Q4 TARGET-DATE FUNDS (TDF) SERIES

We average the scores of the underlying holdings for the TDF Series score. 51 mutual fund TDF series (as defined by unique strategy and share class combinations) were scored; all 51 are included in this analysis. 24 asset managers had more than 50 percent of their series score averages in the top half (Quartile 1 and 2). 10 asset managers had series score averages in the first quartile.

Strategy Name	Number of Series	Number of Series Scored	Number of Series in Top Half	Average Score Q4	Total Assets in Series (millions)
TIAA-CREF Lifecycle Series	6	6	6	0.7	\$31,163
TIAA-CREF Lifecycle Index Series	4	4	4	4.5	\$12,415
Fidelity Freedom Series	3	3	3	5.3	\$185,225
JPMorgan SmartRetirement Blend Series	12	11	10	13.0	\$3,527
Schwab Target Series	1	1	1	15.0	\$4,027
T. Rowe Price Retirement Series	5	3	3	16.7	\$165,999
KP RETIREMENT PATH Series	1	1	1	18.0	\$6,884
American Funds Trgt Date Rtrmt Series	13	13	13	18.8	\$87,706
State Street Target Retirement Series	3	3	3	19.0	\$4,417
Fidelity Freedom Index Series	2	2	2	24.5	\$23,856
BlackRock LifePath Index Series	4	3	3	26.0	\$16,876
John Hancock Multimanager Lifetime S	12	11	9	26.9	\$7,686
Vanguard Target Retirement Series	4	2	1	29.0	\$381,490
T. Rowe Price Target Retire Series	3	3	3	29.3	\$1,487
Principal Lifetime Hybrid Series	4	2	2	31.0	\$667
JPMorgan SmartRetirement Series	8	8	6	32.3	\$49,971
John Hancock Multi-Index Lifetime Series	3	3	3	32.3	\$1,314
Voya Index Solution Series	5	5	5	32.6	\$3,673
AllianceBernstein Multi-Manager Select S	7	7	6	33.6	\$724
Fidelity Advisor Freedom Series	5	5	3	34.6	\$18,294
Great-West SecureFoundation® Lifetime Se	3	3	3	34.7	\$600
Great-West Lifetime Series	4	4	3	37.3	\$6,192
MFS Lifetime Series	12	12	7	45.4	\$2,787
Voya Target Retirement Series	3	3	2	46.3	\$39
Voya Solution Series	5	5	2	48.2	\$3,274
USAA TARGET RETIREMENT FUNDS Series	1	1	0	52.0	\$4,558
Principal LifeTime Series	14	8	3	56.5	\$25,704
MainStay Retirement Series	6	6	3	56.8	\$763
AllianzGI Retirement Series	6	6	4	57.0	\$458
AXA Target Allocation Series	3	2	1	59.5	\$479
PIMCO RealPath Blend Series	3	3	0	60.3	\$205
Fidelity Managed Retirement Series	10	10	3	61.7	\$59
Great-West Lifetime Conservative Series	3	3	0	63.3	\$676
John Hancock Multi-Index Preservation S	6	6	0	63.5	\$8,162
Fidelity Simplicity RMD Series	5	5	1	64.0	\$64
State Farm Lifepath Series	10	10	1	65.4	\$8,278
BMO Target Date Retirement Funds	3	3	1	66.0	\$352
BlackRock LifePath Dynamic	5	5	1	66.2	\$1,428
Harbor Target Retirement Series	1	1	0	67.0	\$177

2017 | Q4 TARGET-DATE FUNDS (TDF) SERIES (cont)

Strategy Name	Number of Series	Number of Series Scored	Number of Series in Top Half	Average Score Q4	Total Assets in Series (millions)
Goldman Sachs Target Date Portfolio Seri	6	6	0	67.2	\$254
Guidestone Funds MyDestination Series	2	2	0	68.0	\$2,987
American Century One Choice Series	6	6	2	68.3	\$19,014
MassMutual RetireSMART Series	10	7	0	69.1	\$2,467
Nationwide Destination Series	5	5	1	70.8	\$1,885
Putnam RetirementReady Series	7	7	2	71.3	\$1,037
BlackRock LifePath® Smart Beta	5	5	0	80.6	\$169
Wells Fargo Target Series	6	6	0	85.2	\$5,455
Manning & Napier Target Series	5	5	0	85.8	\$609
Invesco Balanced-Risk Retirement Series	10	10	0	87.3	\$256
Franklin LifeSmart Series	5	5	0	91.0	\$542
PIMCO RealPath™ Series	4	4	0	92.0	\$257

2017 | Q4 LARGE ASSET MANAGER SUMMARY

The top 50 firms, by all investment assets reported (except GRPA) under the asset manager name.

It is important to note that asset managers may report multiple names. For example, Principal Life Insurance Company and Principal Funds will appear as separate asset managers; Charles Schwab Bank appears separately from Schwab Funds, etc.

Asset Manager Name	Number of Investments Scored	Average Score Overall		Score Change	Total Assets (millions)
		Q3	Q4		
TIAA Investments	265	13	16.1	3	\$177,093.88
T. Rowe Price	458	23.8	19.6	-4	\$881,161.99
Dimensional Fund Advisors	90	19.9	20.2	0.3	\$431,451.75
Vanguard	391	25.6	22.7	-3	\$5,133,044.08
Black Rock Inc	85	43.4	23.6	-20	\$623,101.55
Northern Funds	50	27.5	27.6	0.1	\$160,195.13
Dodge & Cox	6	19.2	28	9	\$214,070.75
Schwab Funds	63	26.1	28.7	2.5	\$244,785.23
iShares	265	31.4	32.4	1	\$1,350,654.15
Columbia	755	32.9	33.5	1	\$165,448.94
Galliard Capital Management Inc.	17	32.8	34.5	2	\$429,596.19
JPMorgan	643	32.3	34.8	2.5	\$629,182.98
State Street Global Advisors	302	38	36.4	-2	\$2,937,403.41
SPDR State Street Global Advisors	110	33.9	36.0	3	\$622,235.89
State Street Global Advisors Ltd	56	47.6	37.3	-10	\$177,065.44
Jackson National	209	38.4	38.3	-0.1	\$209,308.31
Principal Funds	479	38.6	38.5	-0.1	\$179,074.03
Fidelity Investments	1021	39.3	38.8	-0.5	\$2,283,309.13
American Funds	769	39.1	39.8	1	\$1,669,634.39
John Hancock	601	42.5	42.2	-0.3	\$200,633.62
Dreyfus	326	45.8	43.9	-2	\$235,246.99
MFS	656	48.1	44.4	-4	\$254,878.19
Pimco	443	45.3	44.7	-1	\$377,751.88
AXA Equitable	218	44.7	45.5	1	\$159,327.68
PowerShares	129	44.2	45.5	1	\$138,703.11
Black Rock	530	47.2	46.7	-0.5	\$558,805.04
Morgan Stanley	212	48.8	47.6	-1	\$144,972.18
American Century Investments	482	46.7	47.7	1	\$144,879.02
Federated	283	47.4	47.8	.5	\$247,922.35
Goldman Sachs	505	46.8	47.9	1	\$274,958.58
Legg Mason	354	47.2	47.9	1	\$139,870.33
Putnam	524	48.2	51.3	3	\$149,004.82
Wells Fargo Funds	429	50.7	52.4	2	\$206,511.70
Oppenheimer Funds	357	49.8	53.7	4	\$222,706.45
Invesco	643	55	56.8	2	\$233,733.13
Franklin Templeton Investments	467	57.9	62.2	4	\$416,791.58

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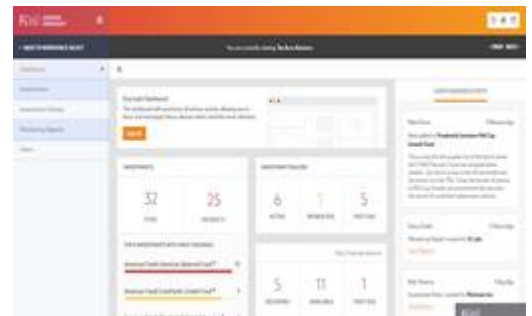
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