MANAGER RESEARCH | JUNE 2026

MORNINGSTAR

US Active/Passive Barometer

Table of Contents

Manager Research

Bryan Armour, CFA
Director, Passive Strategies

Brendan McCann, CFA
Senior Associate Analyst, Passive Strategies

Brian Paoli
Associate Analyst, Passive Strategies

US Active/Passive Barometer

The Morningstar Active/Passive Barometer is a semiannual report that measures the performance of active funds against passive peers in their respective Morningstar Categories. The US Active/Passive Barometer spans nearly 9,226 unique funds that accounted for approximately USD 29 trillion in assets, or about 67% of the US fund market, as of the end of June 2026.

The Active/Passive Barometer measures active managers' success in several unique ways:

- It evaluates active funds against a composite of passive funds. In this way, the "benchmark" reflects the actual, net-of-fees performance of investable passive funds.
- It considers how the average dollar invested in active funds has fared versus the average dollar invested in passive funds.
- It examines trends in active-fund success by fee level.
- It shows the distribution of surviving active funds' excess returns versus their average passive peer to help investors understand not just the odds of picking a successful manager but also the prospective payout or penalty.

The Active/Passive Barometer is a useful measuring stick that helps investors calibrate the odds of succeeding with active funds in different categories.

EXECUTIVE SUMMARY

Key Takeaways

- Actively managed mutual funds and exchange-traded funds made up some ground from July 2025 through June 2026 but still lagged their average passive peer. Just over 40% survived and beat their asset-weighted average passive composite, an increase of 7 percentage points from a year earlier.
- US stock-pickers also trended higher, with a 38% success rate for the year through June 2026, up 4 percentage points from the year prior. Active small-cap managers (49% success rate) and mid-cap managers (47%) led the improvement, while large-cap managers (27%) detracted from US equities manager success rates.
- International stock managers held steady at a 44% success rate for the 12 months through June, roughly in line with the year prior. Active diversified emerging-market funds had the second-highest success rate among all categories in this study at 70%, a 35-percentage-point increase from last year. Woes continued for active global large-blend funds, which combine foreign and domestic stocks, despite a small uptick in success rates. Just a third of global large-blend managers beat the passive benchmark in the 12 months through June 2026, up 7 percentage points from the year prior.
- Active bond managers' fortunes reversed following a disappointing first half of 2025. Across the three fixed-income categories included in the study, success rates shot up 22 percentage points to 52% over the 12 months through June 2026. Active intermediate-core bond managers led the cohort with a 66% success rate, while active corporate-bond managers' success rate jumped to 34% from 4% in 2025. The fixed-income cohort's 45% 10-year success rate paced all category groups tracked in this report.
- Active real estate fund success rates rose 36 percentage points to 61% in the 12 months through June 2026, following a rough stretch for active managers a year earlier.
- Actively managed funds' long-term record against their passive peers rose 4 percentage points during the past 12 months. Still, just 25% of active strategies survived and beat their passive counterparts over the 10 years through June 2026. Long-term success rates were highest among bond and real estate funds and lowest among US large-cap strategies.
- The distribution of 10-year excess returns for surviving active funds versus the average of their passive peers varied across categories. In the case of US large-cap funds, it skewed negative, indicating that the performance penalty for picking an unsuccessful manager outweighed the reward for finding a winner. The inverse tends to be true of the intermediate core bond category, where excess returns skewed positive over the past decade.
- Investors have chosen active funds wisely. Over the past 10 years, the average dollar invested in active funds outperformed the average active fund in 16 of the 20 categories examined. That implies investors favor cheaper, higher-quality strategies.
- The cheapest active funds succeeded more often than the priciest ones. Over the 10 years through June 2026, 33% of active funds in the cheapest quintile of their respective categories beat their average passive peer, compared with 20% for the priciest funds.

Division Between the Cheapest and Most Expensive Active Funds

Exhibit 1 Active Funds' Success Rate by Category (%)

Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	10-Year (Lowest Cost)*	10-Year (Highest Cost)
US Large Blend	31.6	26.1	20.4	10.5	3.2	4.9	23.1	9.1
US Large Value	32.0	33.6	25.4	25.5	9.3	9.8	36.8	17.6
US Large Growth	17.2	14.6	7.2	5.0	1.1	0.8	8.6	2.5
US Mid Blend	41.5	34.7	48.6	17.4	14.3	10.2	23.1	16.7
US Mid Value	54.5	52.8	43.8	34.7	17.3	23.1	41.7	20.8
US Mid Growth	45.5	29.1	22.0	24.5	18.9	12.3	32.5	40.0
US Small Blend	41.4	38.1	54.7	20.2	11.1	7.3	24.4	26.7
US Small Value	64.1	43.9	49.2	34.1	13.1	20.7	36.0	20.0
US Small Growth	43.0	29.9	36.8	34.5	22.5	15.4	36.6	31.7
Foreign Large Blend	24.2	26.7	30.1	21.8	27.0	18.1	30.0	20.5
Foreign Large Value	24.8	28.1	22.7	20.0	33.0	13.0	20.0	15.0
Foreign Small/Mid-Blend	52.0	50.0	50.0	19.4	18.2		28.6	16.7
Global Large Blend	33.3	21.1	23.8	19.2	12.5		33.3	20.0
Diversified Emerging Markets	70.2	56.1	47.1	36.7	43.6	36.6	52.1	27.1
Europe Stock	26.7	29.4	31.2	4.5	7.4	25.8	0.0	0.0
US Real Estate	53.4	44.4	63.2	41.8	33.3	28.4	57.1	28.6
Global Real Estate	73.7	28.3	55.3	44.6	45.7		43.8	15.4
Intermediate Core Bond	66.0	64.2	51.3	43.1	27.4	18.1	70.8	21.7
Corporate Bond	34.1	32.7	26.1	55.6	41.2		44.4	66.7
High-Yield Bond	44.7	33.3	43.8	42.9	46.9		47.5	32.5

*Green/red shading indicates that active funds in this fee quintile had above/below-average success rates.

Exhibit 2 Active Funds' Success Rate by Category (%)

Category	2026	2025	Year-Over-Year Change
US Large Blend	31.6	24.3	7.3
US Large Value	32.0	46.7	-14.7
US Large Growth	17.2	27.9	-10.7
US Mid Blend	41.5	23.1	18.4
US Mid Value	54.5	38.5	16.0
US Mid Growth	45.5	25.0	20.5
US Small Blend	41.4	32.4	9.0
US Small Value	64.1	31.5	32.6
US Small Growth	43.0	28.4	14.6
Foreign Large Blend	24.2	50.8	-26.6
Foreign Large Value	24.8	52.6	-27.8
Foreign Small/Mid-Blend	52.0	65.5	-13.5
Global Large Blend	33.3	23.5	9.8
Diversified Emerging Markets	70.2	35.2	35.0
Europe Stock	26.7	46.7	-20.0
US Real Estate	53.4	33.9	19.5
Global Real Estate	73.7	15.2	58.5
Intermediate Core Bond	66.0	49.3	16.7
Corporate Bond	34.1	4.1	30.0
High-Yield Bond	44.7	21.4	23.3

Source: Morningstar. Data as of June 30, 2026.

A Year Changes Things

Exhibit 3 Trends in Active Funds' One-Year Success Rates by Category (%)

Category	Dec 2019	June 2020	Dec 2020	June 2021	Dec 2021	June 2022	Dec 2022	June 2023	Dec 2023	June 2024	Dec 2024	June 2025	Dec 2025	June 2026
US Large Blend	27.6	22.8	23.3	40.4	35.2	50.5	58.5	26.8	25.7	36.4	28.5	24.3	31.5	31.6
US Large Value	39.6	39.2	46.2	54.1	44.1	32.7	37.3	58.4	57.2	54.5	43.9	46.7	60.4	32.0
US Large Growth	17.7	15.3	26.4	35.0	15.1	36.4	51.4	21.3	19.8	40.7	40.1	27.9	16.9	17.2
US Mid Blend	37.3	14.8	10.6	30.4	76.5	64.8	64.0	41.1	47.4	46.6	39.0	23.1	34.2	41.5
US Mid Value	47.2	56.0	63.3	58.9	50.5	41.0	49.0	62.3	75.9	59.4	41.3	38.5	50.8	54.5
US Mid Growth	60.1	50.9	52.3	44.8	41.3	55.5	41.2	59.5	23.2	25.0	32.9	25.0	24.5	45.5
US Small Blend	33.8	20.9	24.1	40.3	77.8	78.5	66.1	61.5	45.0	52.3	40.3	32.4	36.4	41.4
US Small Value	35.0	40.5	38.3	48.3	57.8	74.2	53.5	52.6	53.3	54.0	49.3	31.5	36.6	64.1
US Small Growth	39.4	47.7	55.8	64.4	63.2	52.3	43.8	37.8	25.1	38.3	42.2	28.4	38.7	43.0
Foreign Large Blend	48.6	48.9	39.8	42.0	50.8	42.0	44.3	63.3	51.2	45.0	53.8	50.8	37.2	24.2
Foreign Large Value	34.5	64.0	66.7	46.1	31.1	29.5	26.7	58.2	58.1	37.5	50.5	52.6	34.6	24.8
Foreign Small/Mid-Blend	53.1	39.4	36.4	55.2	55.6	50.0	59.3	69.2	58.1	63.3	58.6	65.5	40.7	52.0
Global Large Blend	41.9	29.7	35.1	57.7	45.9	43.6	47.2	40.9	22.8	25.4	20.2	23.5	25.0	33.3
Diversified Emerging Markets	58.4	50.6	55.8	63.4	40.8	22.6	28.5	71.8	58.2	48.4	22.2	35.2	64.5	70.2
Europe Stock	52.6	72.2	76.5	66.7	53.3	37.5	25.0	31.2	11.8	41.2	46.7	46.7	33.3	26.7
US Real Estate	51.7	54.1	66.1	55.4	69.1	73.7	51.7	58.7	49.2	66.7	65.1	33.9	14.0	53.4
Global Real Estate	72.2	77.8	69.8	76.0	83.7	85.1	13.0	84.4	77.8	56.5	67.4	15.2	9.5	73.7
Intermediate Core Bond	34.3	26.8	56.2	84.3	64.5	34.5	35.7	63.9	60.3	74.0	81.1	49.3	53.8	66.0
Corporate Bond	17.9	17.6	55.1	80.9	81.8	30.4	26.5	41.2	34.0	63.5	66.0	4.1	4.7	34.1
High-Yield Bond	59.5	59.3	66.5	66.1	60.9	48.9	50.8	57.0	43.7	54.2	51.1	21.4	36.3	44.7

Source: Morningstar. Data as of June 30, 2026.

Asset-Weighted vs Equal-Weighted

Exhibit 4 Comparison of Asset- and Equal-Weighted 10-Year Returns %

Category	AW Return - Active	EW Return - Active	Diff - Active	AW Return - Passive	EW Return - Passive	Diff - Passive	Diff (Passive vs Active) - AW	Diff (Passive vs Active) - EW
US Large Blend	13.9	13.0	0.9	15.2	14.5	0.7	1.3	1.5
US Large Value	11.7	11.3	0.4	11.7	11.7	0.0	0.0	0.4
US Large Growth	17.1	15.6	1.5	19.1	17.6	1.5	2.0	2.0
US Mid Blend	11.4	10.7	0.7	11.9	11.6	0.3	0.5	0.9
US Mid Value	11.3	10.3	1.0	10.3	10.4	-0.1	-1.0	0.1
US Mid Growth	11.9	12.3	-0.4	12.6	12.8	-0.2	0.7	0.5
US Small Blend	11.1	10.8	0.3	11.6	11.5	0.1	0.5	0.7
US Small Value	11.3	10.6	0.7	10.7	10.1	0.6	-0.6	-0.5
US Small Growth	12.2	12.5	-0.3	12.1	12.2	-0.1	-0.1	-0.3
Foreign Large Blend	9.5	9.1	0.4	10.0	9.7	0.3	0.5	0.6
Foreign Large Value	10.3	9.6	0.7	10.3	10.1	0.2	0.0	0.5
Foreign Small/Mid-Blend	8.3	7.7	0.6	8.4	9.1	-0.7	0.1	1.4
Global Large Blend	12.0	11.1	0.9	12.5	12.2	0.3	0.5	1.1
Diversified Emerging Markets	9.7	9.4	0.3	9.0	8.5	0.5	-0.7	-0.9
Europe Stock	9.5	9.1	0.4	10.7	10.2	0.5	1.2	1.1
US Real Estate	5.6	5.3	0.3	4.9	4.4	0.5	-0.7	-0.9
Global Real Estate	3.8	4.2	-0.4	2.3	2.5	-0.2	-1.5	-1.7
Intermediate Core Bond	1.9	1.8	0.1	1.5	1.4	0.1	-0.4	-0.4
Corporate Bond	2.5	2.7	-0.2	2.5	2.6	-0.1	0.0	-0.1
High-Yield Bond	5.5	5.1	0.4	5.0	5.1	-0.1	-0.5	0.0

Source: Morningstar. Data as of June 30, 2026.

Results by Category

US Large-Cap Funds

- The US large-cap equity market has been a difficult place for active funds to succeed in the long run. Just 13% of them survived and beat their average passive rival over the decade through June 2026. That fell well short of the 25% and 29% success rates for active mid- and small-cap managers, respectively.
- Active large-growth strategies have had a particularly hard time delivering value for investors. Of the active funds that existed in this category two decades ago, 66% closed, and less than 1% managed to outperform their average indexed peer.
- Active US large-cap managers added to their woes during the 12 months through June 2026. Their 27% success rate marked a 5-percentage-point decrease from the year prior. Active large-value managers saw the largest drop in one-year success rates, going down to 32% from 47%, while large-growth funds declined 11 percentage points. Active large-blend managers bucked the trend by increasing their success rates by 7 percentage points over the past year.
- Expensive active large-cap funds must overcome long odds to succeed: Just 9% of them beat a composite of their passive peers over the decade through June 2026, compared with 22% of the cheapest quintile of active large-cap strategies. Investors mostly favor cheaper, better-performing active large-cap funds: The average asset-weighted active return exceeded the average equal-weighted active return across all periods for large-cap growth and blend categories. Active US large-cap value investors selected wisely over the long term, but recently their fortunes flipped as the average equal-weighted active return exceeded the average asset-weighted active return for the trailing one- and three-year periods.
- Over the decade through June 2026, passive large-growth funds beat their active peers by 2.0 percentage points annualized by asset-weighted average—the widest performance margin between active and passive funds by category. Passive funds in the large-blend category posted the second-highest advantage at 1.3 percentage points, while active and passive large-value funds were evenly matched at 11.7% annualized apiece.
- Surviving active funds' median 10-year excess returns were negative across all three US large-cap categories, and the distributions of excess returns had a negative skew. Not only was the likelihood of picking a successful active fund low, but the penalty for poor manager selection also far outstripped the reward for choosing a winner.

10-Yr Success Rates

US Large Blend

10.5%

US Large Value

25.5%

US Large Growth

5.0%

US Large Blend

Exhibit 5 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	433	94.9	212	97.6	22.7	22.3	19.1	20.8	31.6
3-Year	429	86.0	219	90.4	19.6	20.2	17.8	18.6	26.1
5-Year	398	79.6	208	85.1	12.5	12.8	10.9	11.7	20.4
10-Year	382	62.6	144	79.2	13.9	15.2	13.0	14.5	10.5
15-Year	436	50.5	117	70.1	12.7	14.1	11.8	13.8	3.2
20-Year	515	35.7	117	61.5	10.0	11.3	9.7	10.9	4.9

Exhibit 6 Rolling Success Rates for Surviving Active Funds

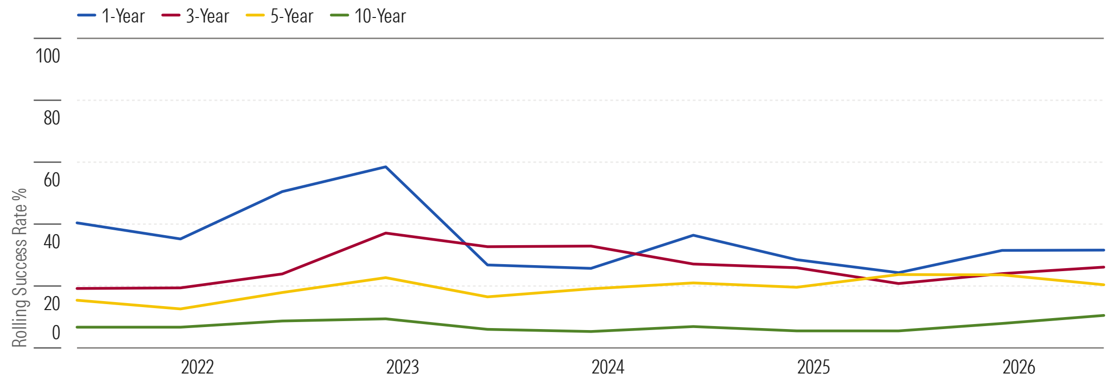
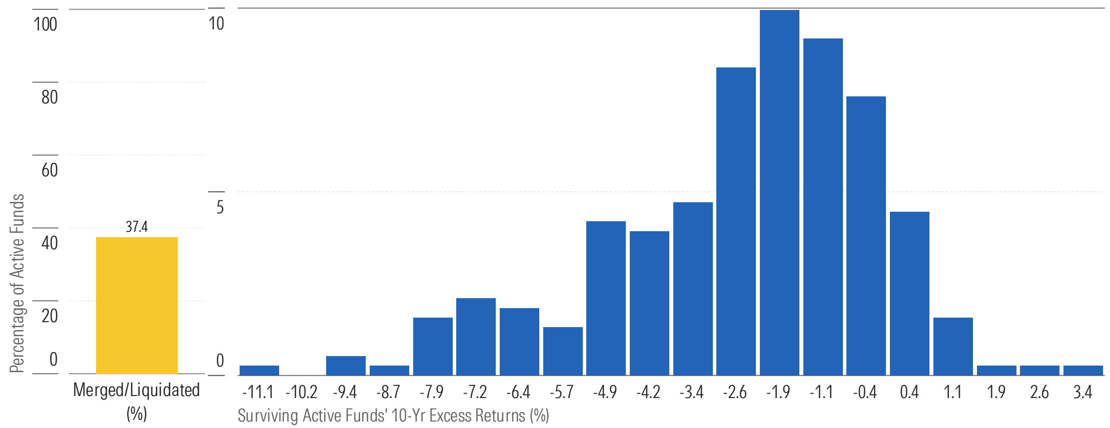


Exhibit 7 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	78	61.5	144	79.2	14.7	15.2	14.4	14.5	23.1
40th	76	72.4	144	79.2	13.3	15.2	13.1	14.5	6.6
60th	75	72.0	144	79.2	12.8	15.2	12.7	14.5	8.0
80th	76	56.6	144	79.2	12.4	15.2	12.8	14.5	5.3
100th	77	50.6	144	79.2	13.2	15.2	11.6	14.5	9.1

Exhibit 8 Mortality & Return Distribution for Surviving Active Funds



US Large Value

Exhibit 9 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	338	96.2	102	98.0	19.3	23.9	21.0	22.9	32.0
3-Year	330	88.8	102	96.1	15.7	16.7	16.0	16.6	33.6
5-Year	315	82.9	103	88.3	10.3	11.2	10.2	11.0	25.4
10-Year	337	63.2	68	94.1	11.7	11.7	11.3	11.7	25.5
15-Year	313	53.4	40	92.5	11.3	11.8	10.6	11.6	9.3
20-Year	386	42.0	23	87.0	9.3	9.3	8.4	8.8	9.8

Exhibit 10 Rolling Success Rates for Surviving Active Funds

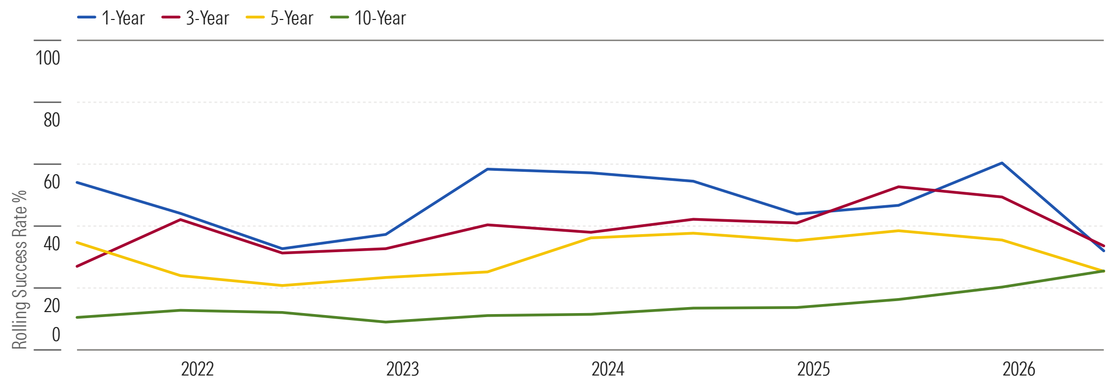
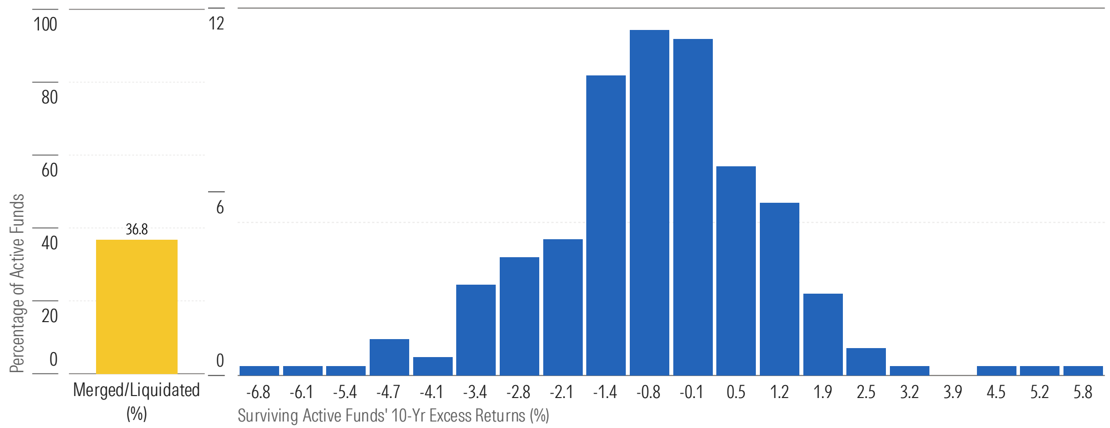


Exhibit 11 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	68	61.8	68	94.1	12.4	11.7	11.8	11.7	36.8
40th	67	67.2	68	94.1	11.2	11.7	11.3	11.7	20.9
60th	67	67.2	68	94.1	11.4	11.7	11.4	11.7	31.3
80th	67	65.7	68	94.1	10.2	11.7	11.0	11.7	20.9
100th	68	54.4	68	94.1	10.4	11.7	11.1	11.7	17.6

Exhibit 12 Mortality & Return Distribution for Surviving Active Funds



US Large Growth

Exhibit 13 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	332	95.5	78	97.4	18.2	24.9	16.2	25.6	17.2
3-Year	349	87.1	81	96.3	22.3	24.5	20.4	23.8	14.6
5-Year	360	82.2	72	88.9	10.8	14.5	9.9	12.7	7.2
10-Year	402	65.2	50	90.0	17.1	19.1	15.6	17.6	5.0
15-Year	449	51.9	39	87.2	15.0	17.5	13.6	16.2	1.1
20-Year	480	34.0	28	89.3	12.3	15.0	11.3	13.8	0.8

Exhibit 14 Rolling Success Rates for Surviving Active Funds

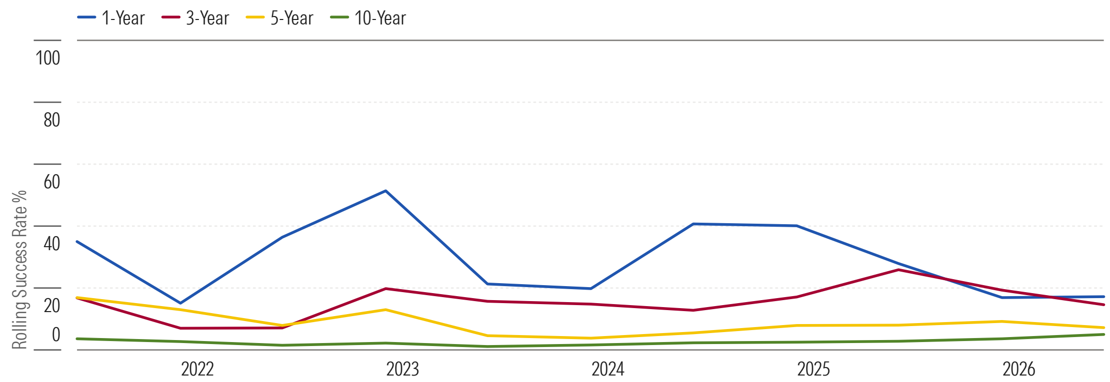
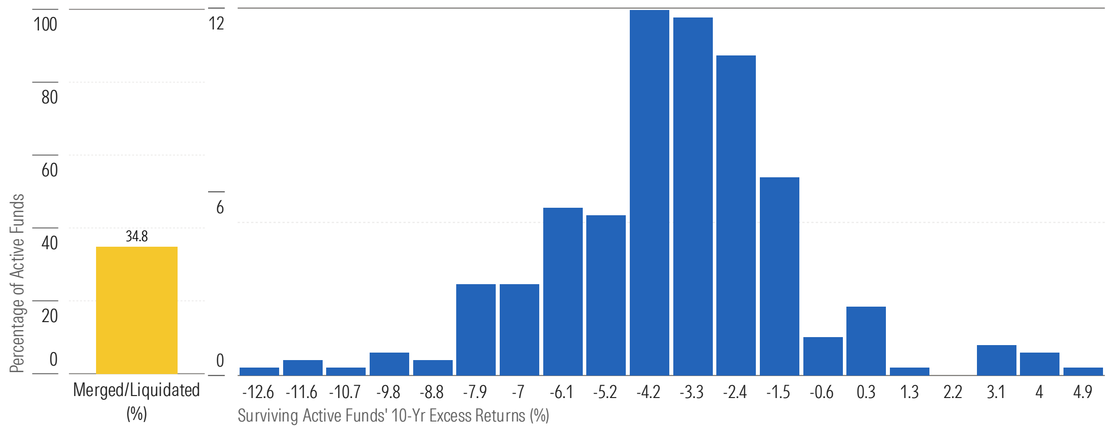


Exhibit 15 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	81	65.4	50	90.0	17.4	19.1	16.8	17.6	8.6
40th	80	65.0	50	90.0	17.8	19.1	16.1	17.6	6.2
60th	80	70.0	50	90.0	15.8	19.1	15.3	17.6	2.5
80th	80	70.0	50	90.0	15.5	19.1	15.1	17.6	5.0
100th	81	55.6	50	90.0	15.7	19.1	14.5	17.6	2.5

Exhibit 16 Mortality & Return Distribution for Surviving Active Funds



RESULTS BY CATEGORY

US Mid-Cap Funds

- Of the active mid-cap funds, 47% survived and outpaced their average passive peer in the 12 months through June 2026, an increase of 19 percentage points from a year earlier.
- Active funds in all three mid-cap categories saw their success rates rise between 16 and 20 percentage points.
- Active mid-cap value funds were a bright spot for active managers, with a 54% success rate in the 12 months through June 2026.
- Active mid-cap value funds were the most successful among all US equity categories over the past 10 years, with a 34.7% success rate.
- Mid-cap funds hunt at the "crossroads" of large- and small-cap companies, which leads to portfolios that bleed into other market-cap segments and oscillating success rates. Indeed, success rates for active mid-cap strategies tended to be more volatile than large- or small-cap categories in recent years.

10-Yr Success Rates

US Mid Blend

17.4%

US Mid Value

34.7%

US Mid Growth

24.5%

US Mid Blend

Exhibit 17 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	123	92.7	80	97.5	19.1	23.3	22.4	25.7	41.5
3-Year	118	86.4	74	95.9	14.4	16.7	15.2	16.0	34.7
5-Year	105	83.8	67	85.1	8.6	8.4	8.7	8.7	48.6
10-Year	121	55.4	57	82.5	11.4	11.9	10.7	11.6	17.4
15-Year	133	51.9	39	76.9	10.8	11.3	10.2	11.0	14.3
20-Year	157	43.9	32	68.8	9.2	9.8	8.6	9.7	10.2

Exhibit 18 Rolling Success Rates for Surviving Active Funds

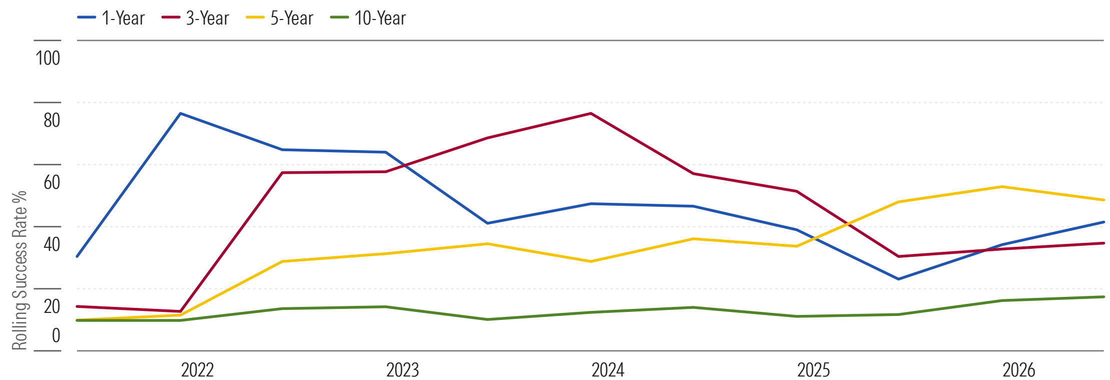
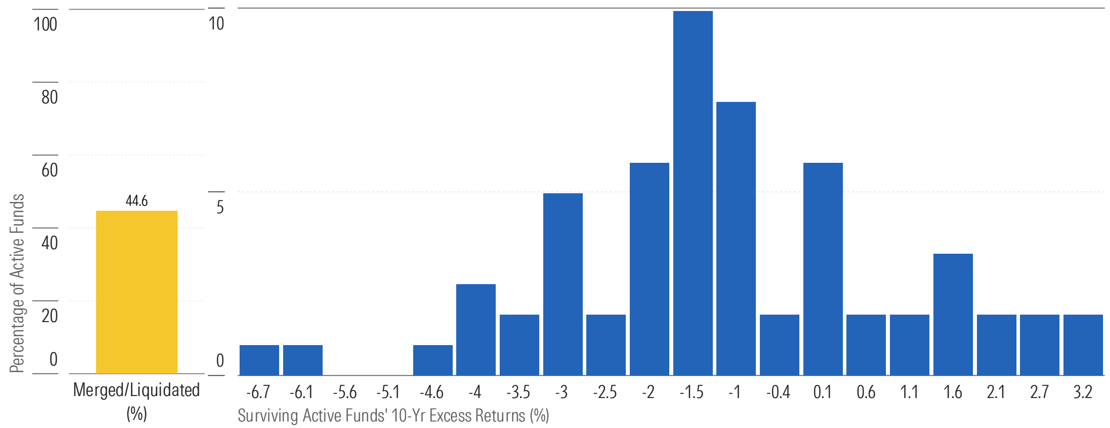


Exhibit 19 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	26	42.3	57	82.5	12.0	11.9	11.4	11.6	23.1
40th	23	65.2	57	82.5	10.2	11.9	10.6	11.6	17.4
60th	25	76.0	57	82.5	10.7	11.9	11.0	11.6	20.0
80th	23	39.1	57	82.5	10.2	11.9	10.7	11.6	8.7
100th	24	54.2	57	82.5	13.0	11.9	10.2	11.6	16.7

Exhibit 20 Mortality & Return Distribution for Surviving Active Funds



US Mid Value

Exhibit 21 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	123	96.7	43	95.3	22.7	19.5	21.5	20.4	54.5
3-Year	106	91.5	35	85.7	14.3	13.4	14.1	14.1	52.8
5-Year	105	87.6	32	84.4	9.4	9.2	8.9	9.0	43.8
10-Year	118	66.9	22	86.4	11.3	10.3	10.3	10.4	34.7
15-Year	110	50.0	19	94.7	10.1	10.9	10.1	11.0	17.3
20-Year	117	47.9	11	90.9	8.7	8.7	8.5	8.6	23.1

Exhibit 22 Rolling Success Rates for Surviving Active Funds

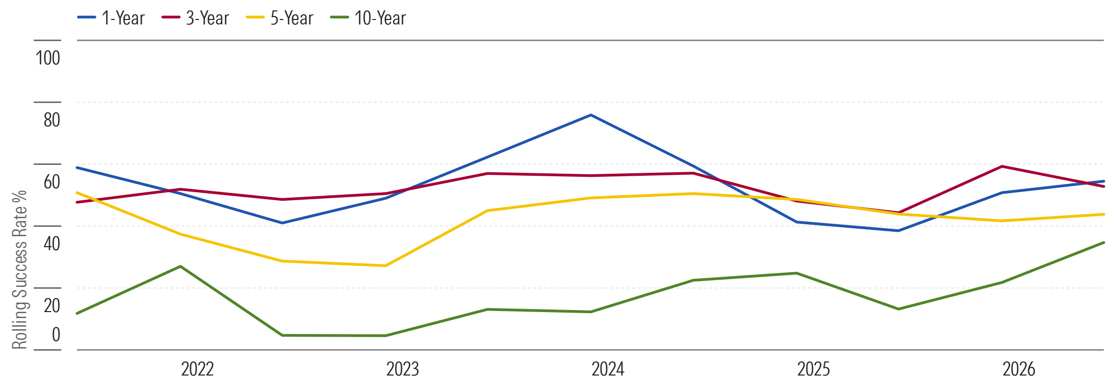
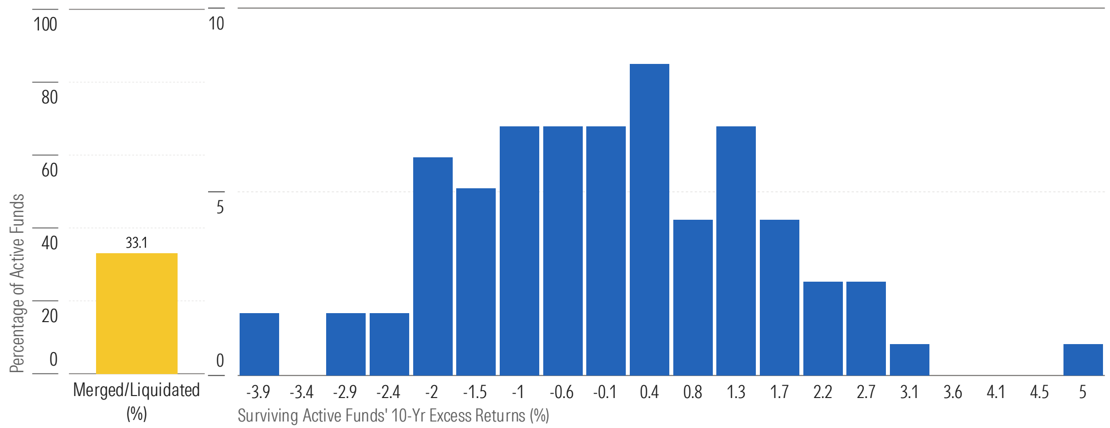


Exhibit 23 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	24	70.8	22	86.4	11.8	10.3	10.8	10.4	41.7
40th	23	69.6	22	86.4	11.6	10.3	10.5	10.4	47.8
60th	24	87.5	22	86.4	9.8	10.3	10.1	10.4	45.8
80th	23	69.6	22	86.4	10.8	10.3	9.9	10.4	17.4
100th	24	37.5	22	86.4	9.6	10.3	9.9	10.4	20.8

Exhibit 24 Mortality & Return Distribution for Surviving Active Funds



US Mid Growth

Exhibit 25 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	143	93.0	26	92.3	11.0	13.7	15.3	24.3	45.5
3-Year	148	87.2	30	76.7	11.9	16.2	14.4	18.0	29.1
5-Year	164	79.9	34	82.4	2.8	6.7	4.3	6.5	22.0
10-Year	200	67.0	25	76.0	11.9	12.6	12.3	12.8	24.5
15-Year	222	53.6	23	69.6	10.6	11.4	10.7	11.8	18.9
20-Year	301	37.5	10	80.0	9.8	10.4	9.6	10.3	12.3

Exhibit 26 Rolling Success Rates for Surviving Active Funds

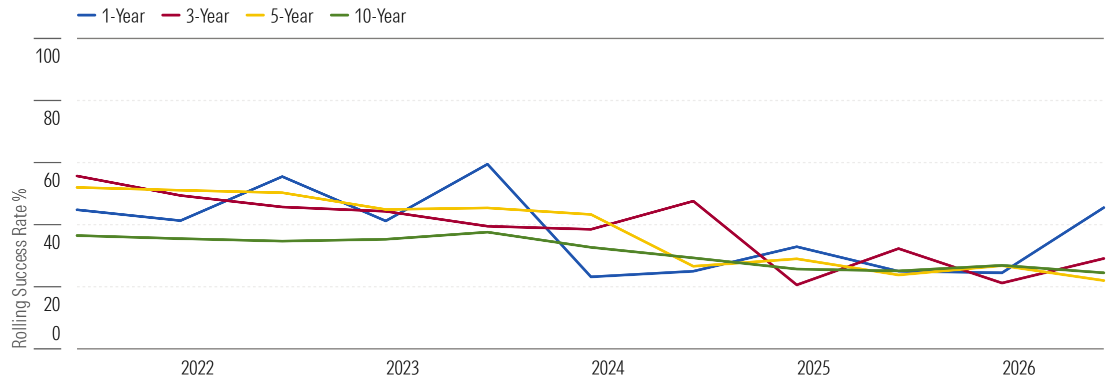
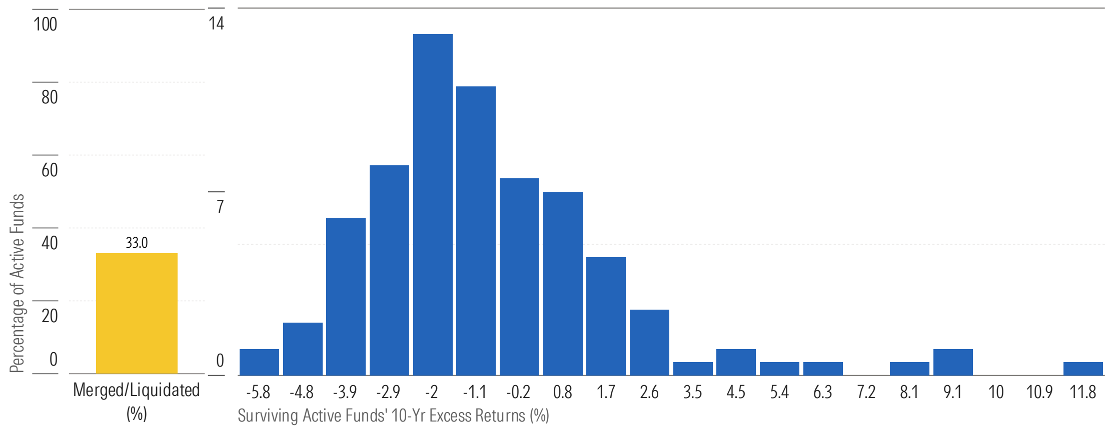


Exhibit 27 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	40	80.0	25	76.0	11.8	12.6	11.8	12.8	32.5
40th	40	65.0	25	76.0	11.7	12.6	11.3	12.8	15.0
60th	40	60.0	25	76.0	11.6	12.6	11.7	12.8	20.0
80th	40	55.0	25	76.0	12.0	12.6	12.5	12.8	15.0
100th	40	75.0	25	76.0	13.1	12.6	14.0	12.8	40.0

Exhibit 28 Mortality & Return Distribution for Surviving Active Funds



US Small-Cap Funds

- Active small-cap strategies' success rates trended higher in the 12 months through June 2026. Nearly 49% survived and outpaced their average passive rival, an 18-percentage-point increase from the year earlier.
- Long-term active success rates have been higher in the small-cap arena than those among large-cap funds. One reason is that the small-cap market is priced less efficiently.
- Relative success versus large caps hasn't amounted to much for active small-cap managers. Just 29% survived and outperformed their average passive peer over the decade through June 2026. Still, active small-growth and small-value managers were the second (34.5%) and third (34.1%) most successful, respectively, among all US equity categories over the past 10 years, only topped by active mid-cap value managers by less than half a percent (34.7%).
- Cost was a key differentiator among active small-value funds, where the cheapest quintile was nearly twice as likely to succeed as the most expensive quintile.

10-Yr Success Rates

US Small Blend

20.2%

US Small Value

34.1%

US Small Growth

34.5%

US Small Blend

Exhibit 29 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	186	95.7	71	97.2	32.4	35.5	33.2	35.0	41.4
3-Year	176	84.1	71	91.5	16.2	17.1	15.8	16.5	38.1
5-Year	172	83.1	73	80.8	8.2	7.4	8.0	7.5	54.7
10-Year	223	57.8	54	72.2	11.1	11.6	10.8	11.5	20.2
15-Year	180	52.8	37	75.7	9.8	10.9	9.6	10.6	11.1
20-Year	191	41.9	36	61.1	8.4	9.3	8.0	8.7	7.3

Exhibit 30 Rolling Success Rates for Surviving Active Funds

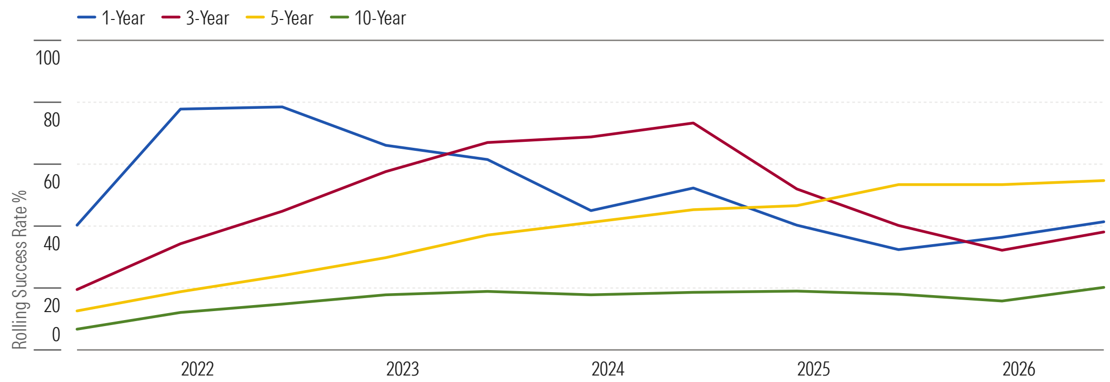
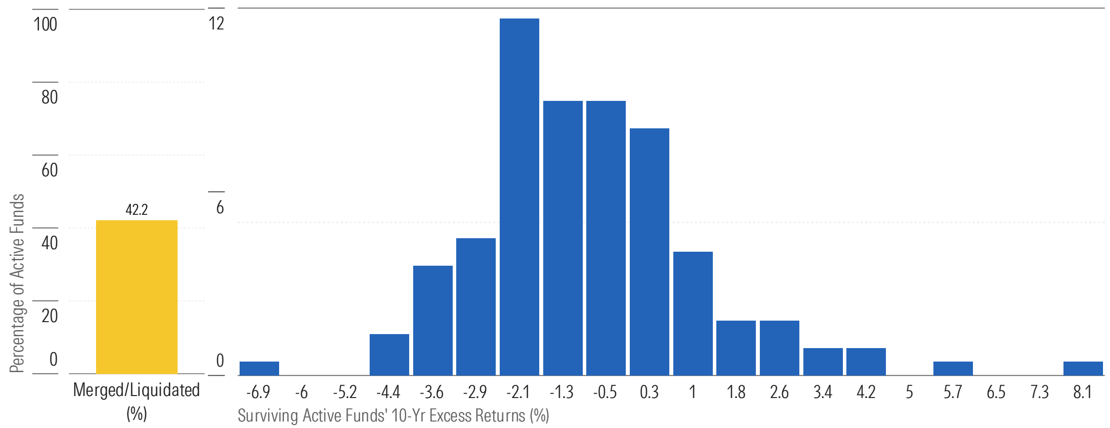


Exhibit 31 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	45	66.7	54	72.2	11.7	11.6	11.1	11.5	24.4
40th	44	68.2	54	72.2	10.8	11.6	10.8	11.5	15.9
60th	45	60.0	54	72.2	10.6	11.6	10.6	11.5	20.0
80th	44	54.5	54	72.2	9.7	11.6	10.2	11.5	13.6
100th	45	40.0	54	72.2	11.4	11.6	11.4	11.5	26.7

Exhibit 32 Mortality & Return Distribution for Surviving Active Funds



US Small Value

Exhibit 33 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	142	95.1	41	100.0	33.6	29.5	32.9	30.3	64.1
3-Year	139	88.5	29	96.6	16.0	16.1	15.9	15.2	43.9
5-Year	120	80.8	26	100.0	9.4	8.5	9.1	7.8	49.2
10-Year	123	62.6	21	95.2	11.3	10.7	10.6	10.1	34.1
15-Year	107	59.8	19	89.5	10.0	10.5	9.6	10.2	13.1
20-Year	135	48.9	10	90.0	8.2	8.6	8.2	8.3	20.7

Exhibit 34 Rolling Success Rates for Surviving Active Funds

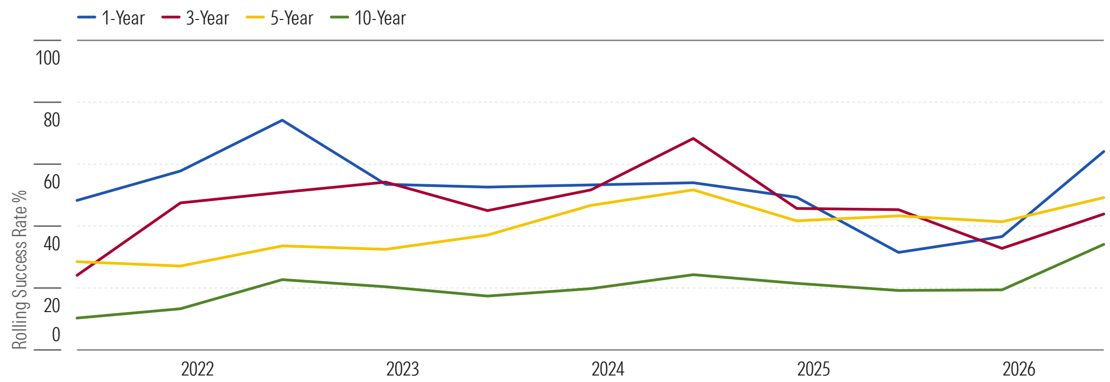
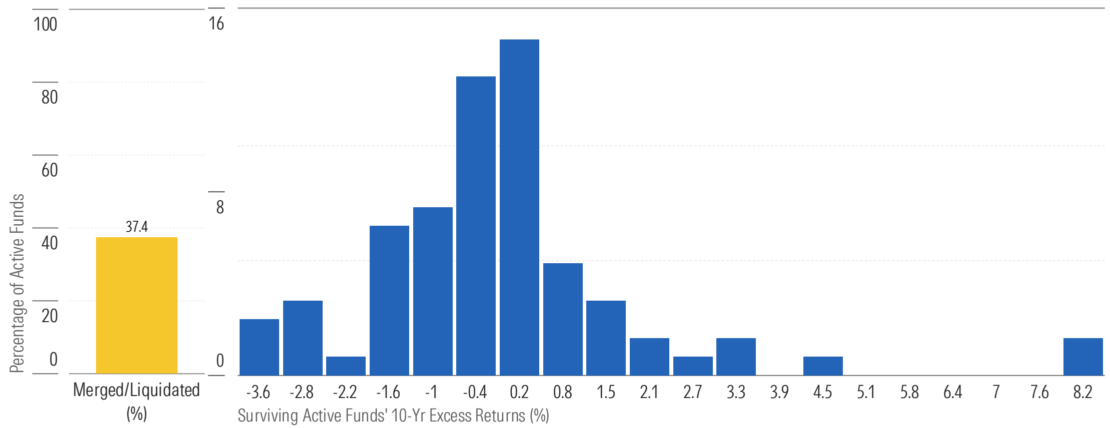


Exhibit 35 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	25	60.0	21	95.2	11.5	10.7	10.9	10.1	36.0
40th	24	79.2	21	95.2	11.2	10.7	11.2	10.1	45.8
60th	25	72.0	21	95.2	11.2	10.7	10.2	10.1	36.0
80th	24	58.3	21	95.2	11.0	10.7	10.3	10.1	33.3
100th	25	44.0	21	95.2	11.2	10.7	10.0	10.1	20.0

Exhibit 36 Mortality & Return Distribution for Surviving Active Funds



US Small Growth

Exhibit 37 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	149	96.0	13	100.0	31.4	35.0	32.9	44.1	43.0
3-Year	167	85.6	15	100.0	14.8	17.7	16.7	19.0	29.9
5-Year	174	81.6	17	88.2	3.8	5.8	5.2	5.7	36.8
10-Year	203	68.5	14	100.0	12.2	12.1	12.5	12.2	34.5
15-Year	222	52.7	13	100.0	11.0	11.0	10.7	10.9	22.5
20-Year	280	41.1	10	90.0	9.6	9.9	9.1	9.5	15.4

Exhibit 38 Rolling Success Rates for Surviving Active Funds

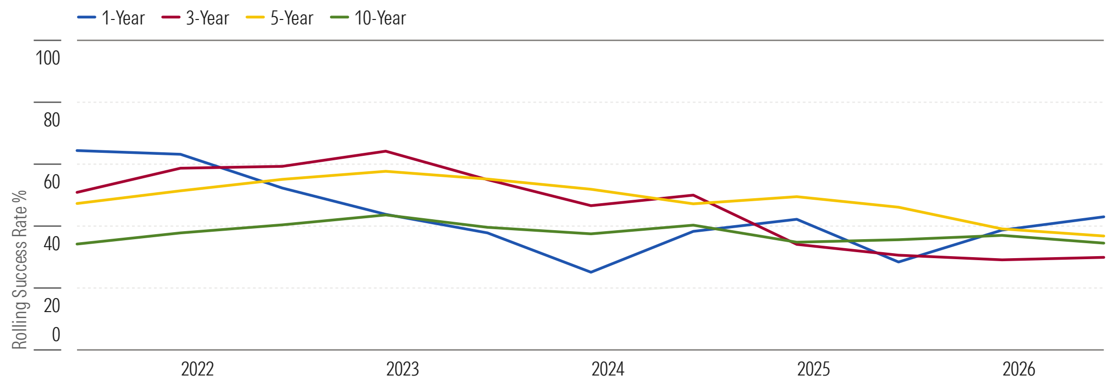
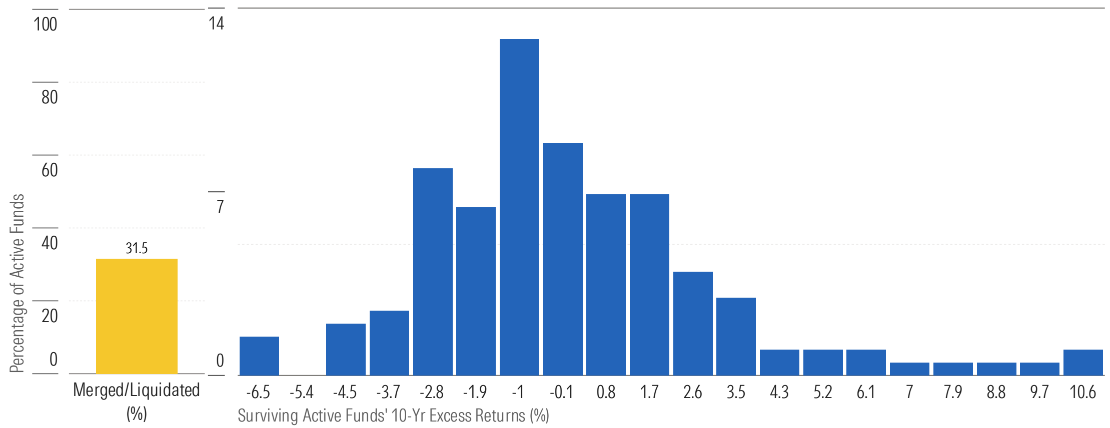


Exhibit 39 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	41	70.7	14	100.0	12.2	12.1	11.8	12.2	36.6
40th	40	72.5	14	100.0	12.3	12.1	12.1	12.2	35.0
60th	41	73.2	14	100.0	12.0	12.1	12.7	12.2	31.7
80th	40	65.0	14	100.0	12.0	12.1	12.4	12.2	37.5
100th	41	61.0	14	100.0	12.6	12.1	13.5	12.2	31.7

Exhibit 40 Mortality & Return Distribution for Surviving Active Funds



Foreign Stock

- Active managers who weave global- or foreign-stock portfolios succeeded at a 43% rate for the 12 months through June 2026, in line with the prior year. Active diversified emerging-market funds increased their success rates at the highest clip of any international stock category (35 percentage points) to 70%. The success rates of other foreign-stock and Europe-stock managers declined by at least 13 percentage points from the year prior.
- The global- and foreign-stock categories have been a bit kinder to active managers than US market segments. At 27%, their 10-year success rate measured up better than the 20% rate for active US stock funds.
- Active managers in the foreign small/mid-blend category have struggled to keep their funds on the market. At 39%, this category's 10-year survivorship rate ranked the lowest among all categories tested.
- Diversified emerging-market funds often come with higher fees than domestic strategies, which gives cheap funds in those categories a greater advantage. Indeed, the cheapest quintile of active funds (52%) was almost twice as likely to beat its average passive peer as was the most expensive quintile (27%) over the past 10 years.

10-Yr Success Rates

Foreign Large Blend	Global Large Blend
21.8%	19.2%
Foreign Large Value	Diversified Emerging Markets
20.0%	36.7%
Foreign Small/ Mid-Blend	Europe Stock
19.4%	4.5%

Foreign Large Blend

Exhibit 41 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	198	93.9	87	96.6	20.8	25.5	21.1	22.2	24.2
3-Year	202	81.2	86	95.3	16.6	18.2	16.6	17.0	26.7
5-Year	193	74.1	98	84.7	8.7	9.1	8.3	8.8	30.1
10-Year	197	58.4	77	77.9	9.5	10.0	9.1	9.7	21.8
15-Year	196	50.0	42	69.0	7.0	6.9	6.6	7.0	27.0
20-Year	177	36.7	25	60.0	5.9	5.5	5.2	5.4	18.1

Exhibit 42 Rolling Success Rates for Surviving Active Funds

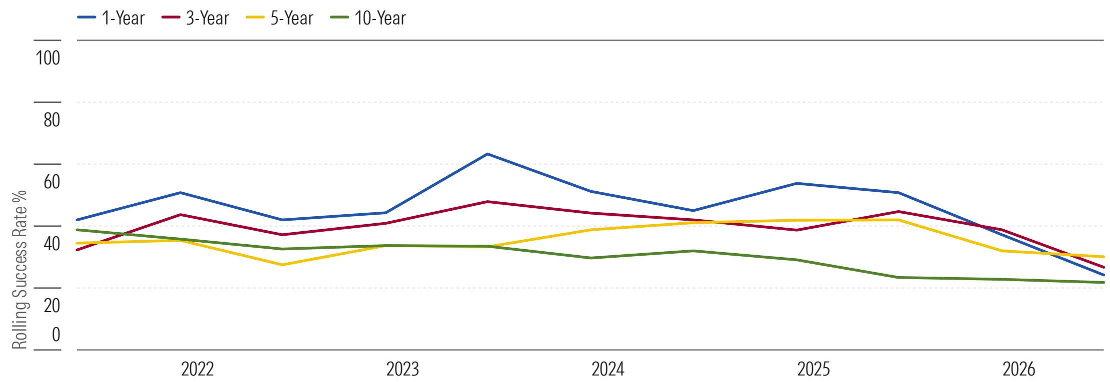
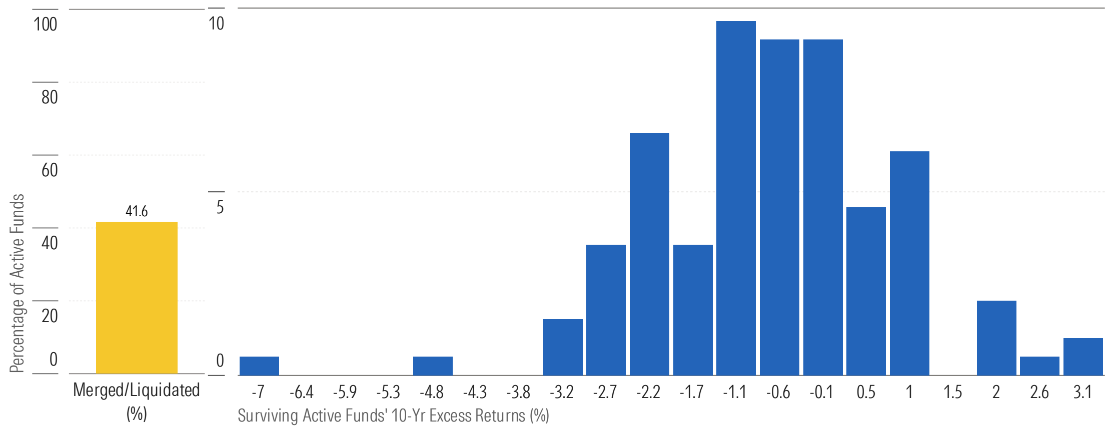


Exhibit 43 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	40	60.0	77	77.9	10.5	10.0	9.4	9.7	30.0
40th	40	77.5	77	77.9	9.1	10.0	9.3	9.7	20.0
60th	38	65.8	77	77.9	8.8	10.0	8.8	9.7	18.4
80th	40	52.5	77	77.9	9.7	10.0	8.8	9.7	20.0
100th	39	35.9	77	77.9	9.4	10.0	9.3	9.7	20.5

Exhibit 44 Mortality & Return Distribution for Surviving Active Funds



Foreign Large Value

Exhibit 45 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	105	97.1	38	100.0	25.3	29.1	25.2	25.6	24.8
3-Year	96	88.5	39	84.6	18.7	21.1	19.3	19.5	28.1
5-Year	88	83.0	38	78.9	11.1	12.8	11.3	11.4	22.7
10-Year	100	60.0	30	60.0	10.3	10.3	9.6	10.1	20.0
15-Year	106	52.8	13	84.6	7.1	6.4	6.6	6.7	33.0
20-Year	77	49.4	4	75.0	5.5	6.2	5.3	5.6	13.0

Exhibit 46 Rolling Success Rates for Surviving Active Funds

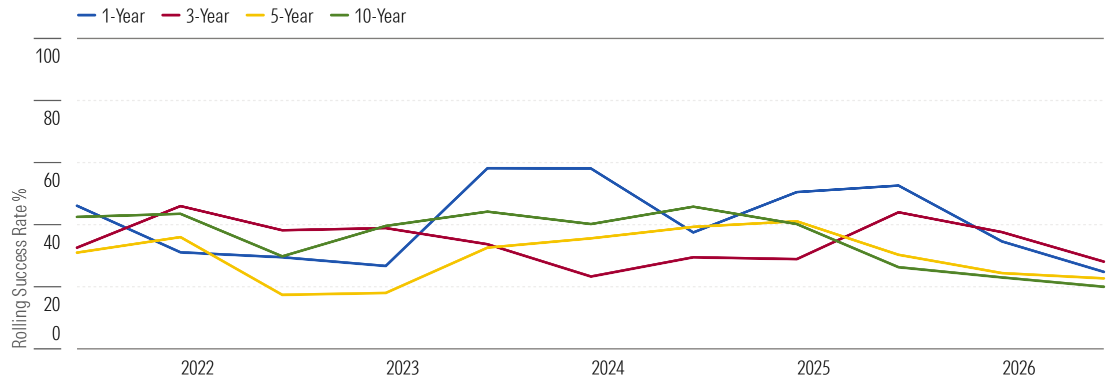
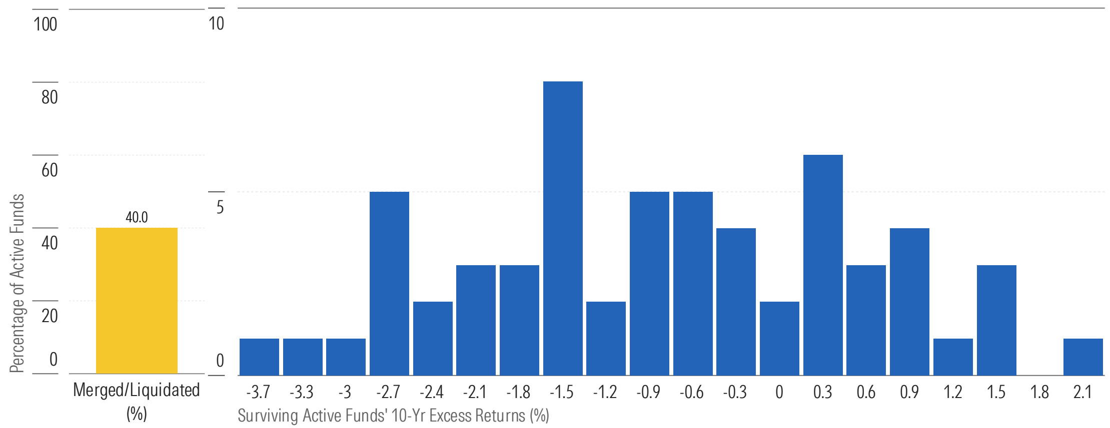


Exhibit 47 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	20	50.0	30	60.0	10.6	10.3	10.8	10.1	20.0
40th	20	50.0	30	60.0	11.1	10.3	10.1	10.1	20.0
60th	20	55.0	30	60.0	10.6	10.3	9.6	10.1	20.0
80th	20	75.0	30	60.0	9.3	10.3	9.5	10.1	25.0
100th	20	70.0	30	60.0	8.5	10.3	8.5	10.1	15.0

Exhibit 48 Mortality & Return Distribution for Surviving Active Funds



Foreign Small/Mid-Blend

Exhibit 49 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	25	100.0	7	100.0	19.4	18.1	16.8	19.1	52.0
3-Year	30	90.0	7	100.0	17.7	15.7	16.0	16.4	50.0
5-Year	26	69.2	8	100.0	7.5	5.7	5.9	6.8	50.0
10-Year	31	38.7	11	81.8	8.3	8.4	7.7	9.1	19.4
15-Year	22	45.5	10	60.0	6.8	6.5	6.2	5.5	18.2
20-Year	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

Exhibit 50 Rolling Success Rates for Surviving Active Funds

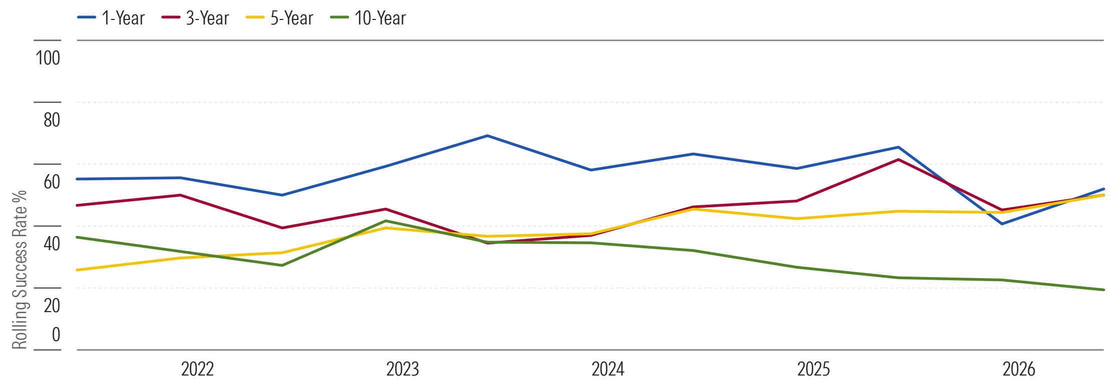
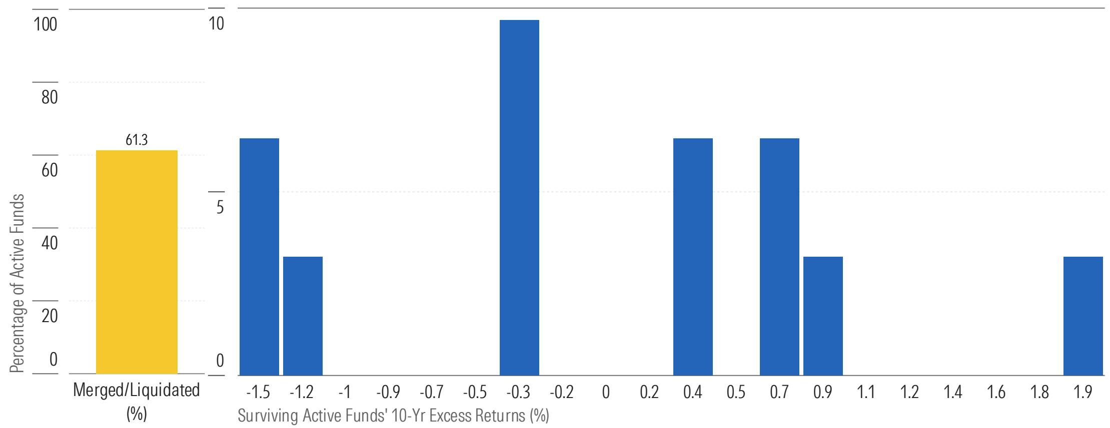


Exhibit 51 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	7	42.9	11	81.8	8.3	8.4	7.8	9.1	28.6
40th	6	33.3	11	81.8	8.9	8.4	8.5	9.1	33.3
60th	6	33.3	11	81.8	8.0	8.4	7.4	9.1	0.0
80th	6	33.3	11	81.8	8.3	8.4	7.3	9.1	16.7
100th	6	50.0	11	81.8	8.2	8.4	7.5	9.1	16.7

Exhibit 52 Mortality & Return Distribution for Surviving Active Funds



Global Large Blend

Exhibit 53 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	114	94.7	30	93.3	23.1	23.4	18.8	17.6	33.3
3-Year	114	78.1	25	80.0	18.7	19.1	15.6	17.3	21.1
5-Year	101	73.3	21	85.7	10.5	10.8	9.0	10.2	23.8
10-Year	73	75.3	16	93.8	12.0	12.5	11.1	12.2	19.2
15-Year	48	81.2	6	100.0	9.8	10.9	9.3	11.0	12.5
20-Year	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

Exhibit 54 Rolling Success Rates for Surviving Active Funds

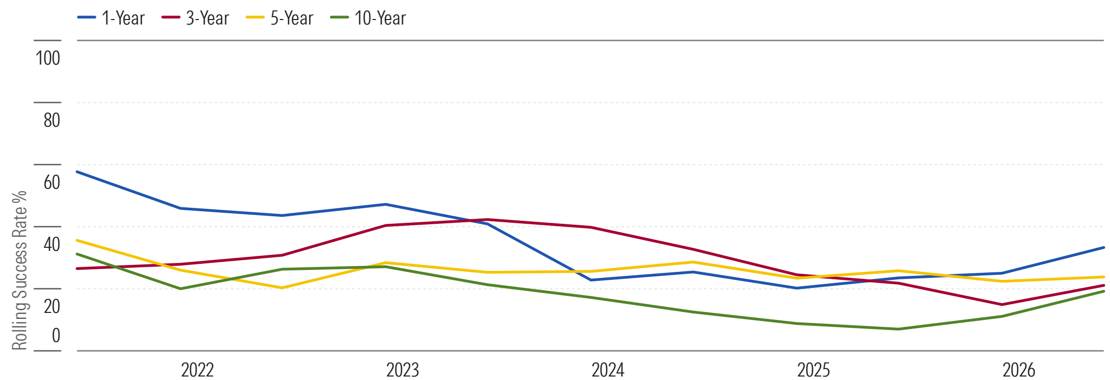
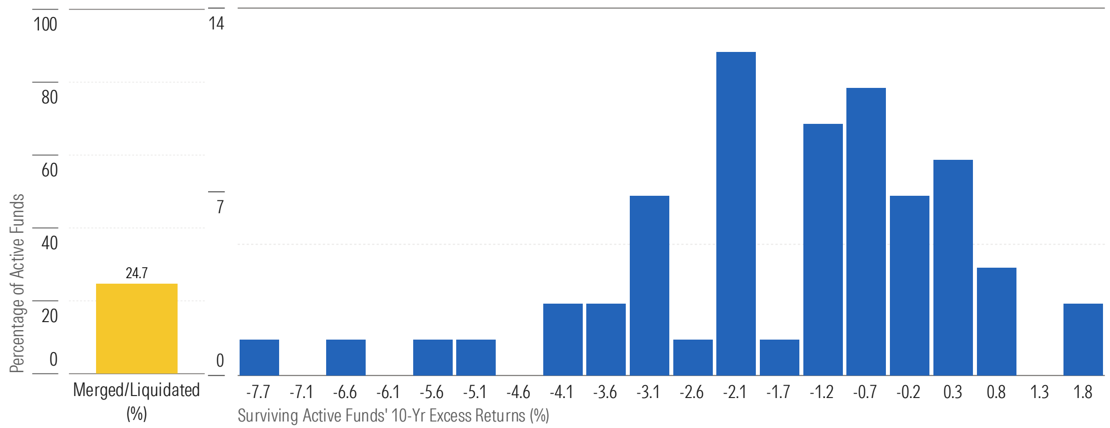


Exhibit 55 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	15	93.3	16	93.8	11.8	12.5	11.8	12.2	33.3
40th	14	71.4	16	93.8	12.2	12.5	11.2	12.2	14.3
60th	15	80.0	16	93.8	9.8	12.5	10.0	12.2	6.7
80th	14	64.3	16	93.8	12.6	12.5	11.8	12.2	21.4
100th	15	66.7	16	93.8	11.2	12.5	10.5	12.2	20.0

Exhibit 56 Mortality & Return Distribution for Surviving Active Funds



Diversified Emerging Markets

Exhibit 57 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	238	93.7	78	100.0	42.7	35.0	44.4	33.8	70.2
3-Year	244	82.4	77	93.5	21.9	20.1	22.2	19.6	56.1
5-Year	221	76.0	75	86.7	6.5	6.3	6.8	6.8	47.1
10-Year	240	52.9	70	64.3	9.7	9.0	9.4	8.5	36.7
15-Year	140	55.7	48	50.0	5.6	4.4	5.2	3.7	43.6
20-Year	82	58.5	5	80.0	6.8	6.1	6.5	6.0	36.6

Exhibit 58 Rolling Success Rates for Surviving Active Funds

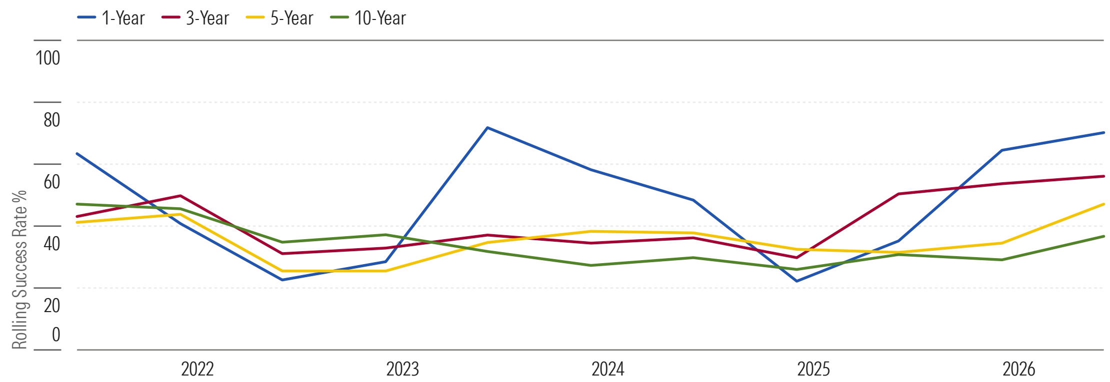
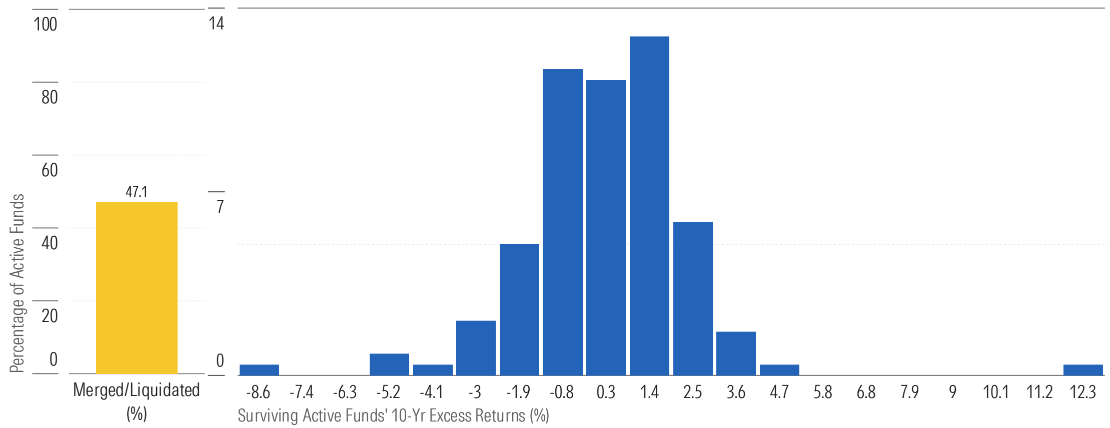


Exhibit 59 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	48	62.5	70	64.3	10.6	9.0	9.9	8.5	52.1
40th	48	50.0	70	64.3	8.5	9.0	9.3	8.5	27.1
60th	48	62.5	70	64.3	9.2	9.0	9.3	8.5	37.5
80th	48	50.0	70	64.3	7.0	9.0	9.5	8.5	39.6
100th	48	39.6	70	64.3	12.0	9.0	9.3	8.5	27.1

Exhibit 60 Mortality & Return Distribution for Surviving Active Funds



Europe Stock

Exhibit 61 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	15	86.7	26	100.0	19.0	18.3	14.0	18.5	26.7
3-Year	17	82.4	26	100.0	16.0	16.7	14.8	16.8	29.4
5-Year	16	81.2	27	96.3	8.3	9.7	7.2	9.6	31.2
10-Year	22	50.0	42	50.0	9.5	10.7	9.1	10.2	4.5
15-Year	27	40.7	33	75.8	6.4	9.1	6.0	18.8	7.4
20-Year	31	35.5	19	89.5	5.4	5.8	5.4	5.7	25.8

Exhibit 62 Rolling Success Rates for Surviving Active Funds

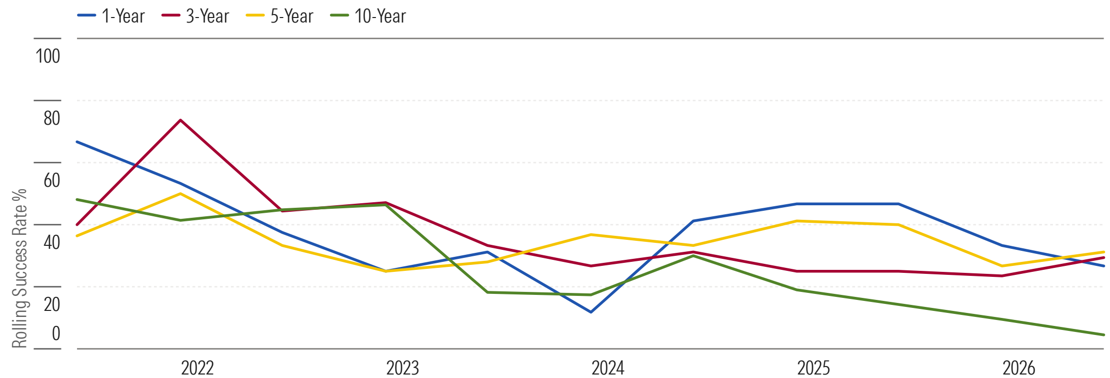
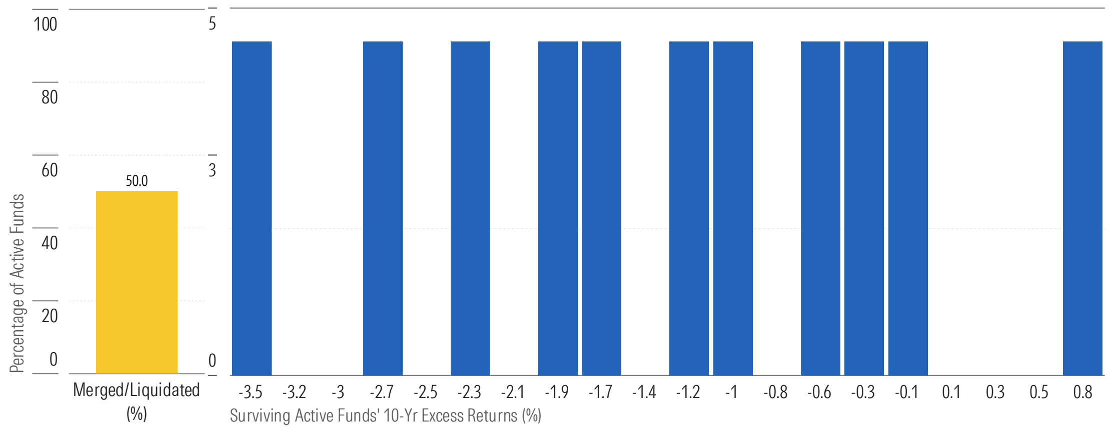


Exhibit 63 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	5	40.0	42	50.0	8.6	10.7	8.9	10.2	0.0
40th	4	75.0	42	50.0	10.3	10.7	10.3	10.2	25.0
60th	4	50.0	42	50.0	9.7	10.7	9.8	10.2	0.0
80th	4	75.0	42	50.0	8.2	10.7	8.8	10.2	0.0
100th	5	20.0	42	50.0	7.1	10.7	7.1	10.2	0.0

Exhibit 64 Mortality & Return Distribution for Surviving Active Funds



Real Estate

- Over the decade through June 2026, 43% of actively managed real estate funds survived and beat their average passive peer, trailing only fixed income among category groups tracked in this study.
- Active global real estate managers had the highest one-year success rate (74%) among all categories in this study, up 60 percentage points from the previous year.
- Success rates in the global real estate category fluctuate dramatically over shorter time horizons. This owes to the diversity of funds within the category. Some invest exclusively outside the US, while others are more truly global. Passive strategies tend to disproportionately invest in international-only portfolios, so differences in performance between US and ex-US real estate securities cause active managers' success rates to ebb and flow.
- Active US real estate managers were near evenly matched with the average passive peer, posting a 53% success rate, while fund closures were identical, with three active and three passive funds shutting down during the 12 months through June 2026.

10-Yr Success Rates

US Real Estate

41.8%

Global Real Estate

44.6%

US Real Estate

Exhibit 65 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	58	94.8	36	91.7	13.5	13.2	14.2	16.2	53.4
3-Year	63	82.5	33	90.9	9.7	9.3	9.6	9.1	44.4
5-Year	57	77.2	30	93.3	3.6	2.9	3.6	2.9	63.2
10-Year	67	58.2	22	86.4	5.6	4.9	5.3	4.4	41.8
15-Year	69	58.0	16	62.5	7.3	7.3	7.1	6.8	33.3
20-Year	74	48.6	5	80.0	5.9	6.1	5.7	5.8	28.4

Exhibit 66 Rolling Success Rates for Surviving Active Funds

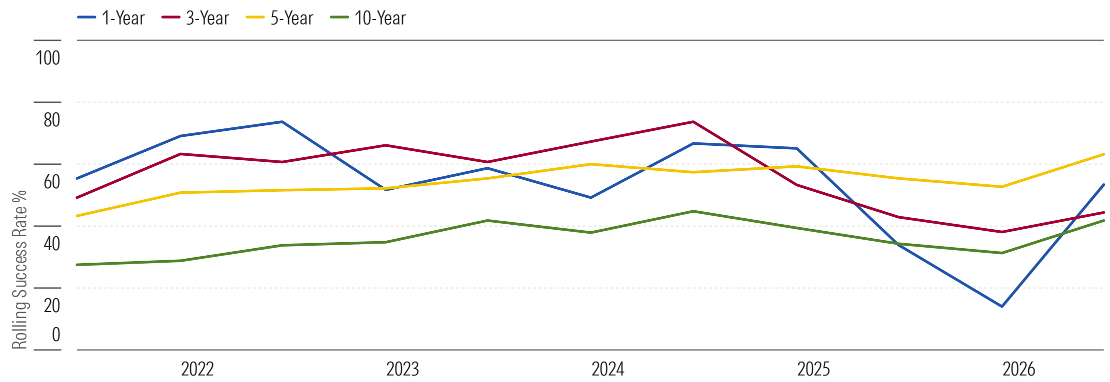
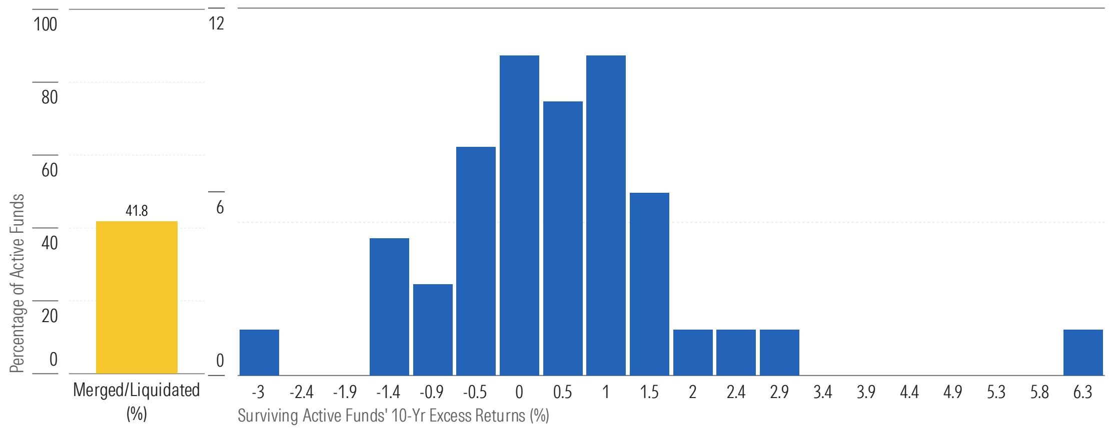


Exhibit 67 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	14	64.3	22	86.4	5.3	4.9	5.5	4.4	57.1
40th	13	53.8	22	86.4	5.9	4.9	4.9	4.4	23.1
60th	13	61.5	22	86.4	5.4	4.9	5.2	4.4	53.8
80th	13	61.5	22	86.4	6.6	4.9	6.4	4.4	46.2
100th	14	50.0	22	86.4	4.6	4.9	4.4	4.4	28.6

Exhibit 68 Mortality & Return Distribution for Surviving Active Funds



Global Real Estate

Exhibit 69 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	38	94.7	14	92.9	10.8	9.6	11.1	10.7	73.7
3-Year	46	71.7	17	82.4	8.9	9.5	9.2	9.4	28.3
5-Year	47	70.2	13	84.6	1.3	0.5	1.6	0.4	55.3
10-Year	65	46.2	17	64.7	3.8	2.3	4.2	2.5	44.6
15-Year	46	47.8	11	72.7	4.6	3.1	4.8	3.9	45.7
20-Year	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

Exhibit 70 Rolling Success Rates for Surviving Active Funds

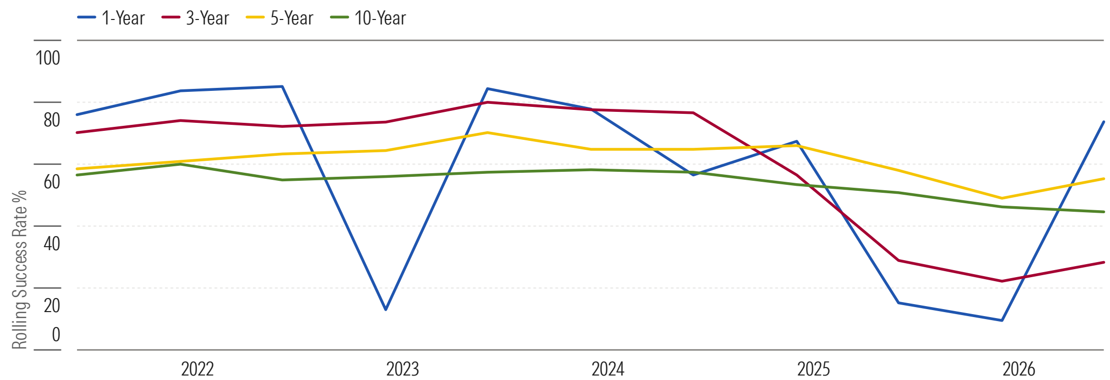
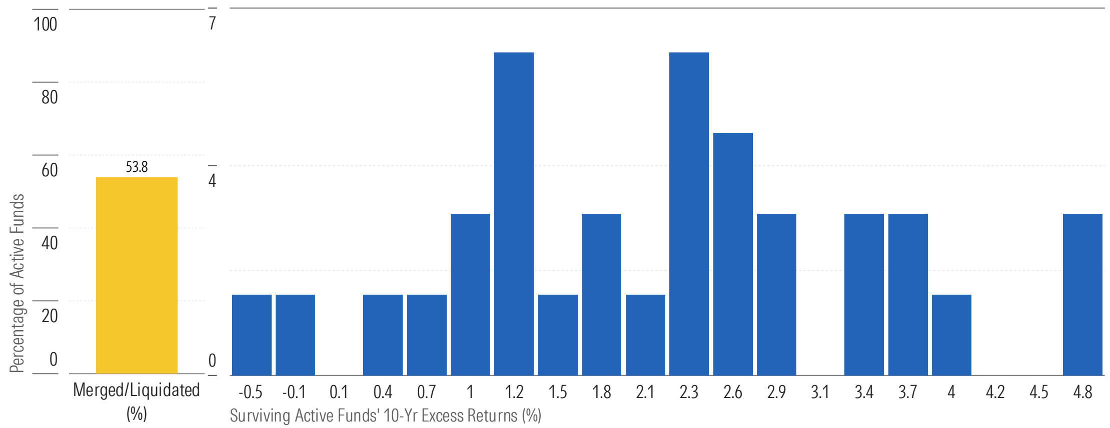


Exhibit 71 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	16	50.0	17	64.7	3.7	2.3	4.2	2.5	43.8
40th	10	50.0	17	64.7	4.1	2.3	4.1	2.5	50.0
60th	13	61.5	17	64.7	2.9	2.3	4.1	2.5	61.5
80th	13	53.8	17	64.7	4.7	2.3	4.6	2.5	53.8
100th	13	15.4	17	64.7	3.9	2.3	3.9	2.5	15.4

Exhibit 72 Mortality & Return Distribution for Surviving Active Funds



Fixed Income

- Active bond managers' success rates increased for all three fixed-income categories over the 12 months through June 2026. Active intermediate core bond managers paced the group, with a success rate of 66%, representing a 17-percentage-point increase from the year earlier. Active corporate bond managers had the most drastic climb in the success rate of fixed-income categories. It jumped 30 percentage points to 34%. Active high-yield bond managers followed the trend, as their success rate climbed 23 percentage points to 45%.
- Actively managed bond funds tend to take more credit risk than indexed peers in each of the three categories included in this study. That has broadly worked for them over the past year, as credit spreads have remained fairly tight through increased geopolitical conflicts.
- Fixed income has been a fertile hunting ground for active managers. Over the past decade, 45% survived and beat their average passive peer, the highest among all categories included in this study. The reward for picking a successful active bond manager also outweighed the penalty of failure, based on positively skewed 10-year excess returns. The value proposition for going active in fixed income remains strong.

10-Yr Success Rates

Intermediate Core Bond

43.1%

Corporate Bond

55.6%

High-Yield Bond

42.9%

Intermediate Core Bond

Exhibit 73 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	144	96.5	30	100.0	3.8	3.7	3.9	3.7	66.0
3-Year	123	90.2	29	100.0	4.4	4.2	4.3	4.1	64.2
5-Year	119	82.4	30	96.7	0.3	0.1	0.2	0.0	51.3
10-Year	116	57.8	25	84.0	1.9	1.5	1.8	1.4	43.1
15-Year	164	38.4	23	65.2	2.5	2.3	2.4	2.1	27.4
20-Year	221	28.1	18	55.6	3.1	3.3	3.1	3.1	18.1

Exhibit 74 Rolling Success Rates for Surviving Active Funds

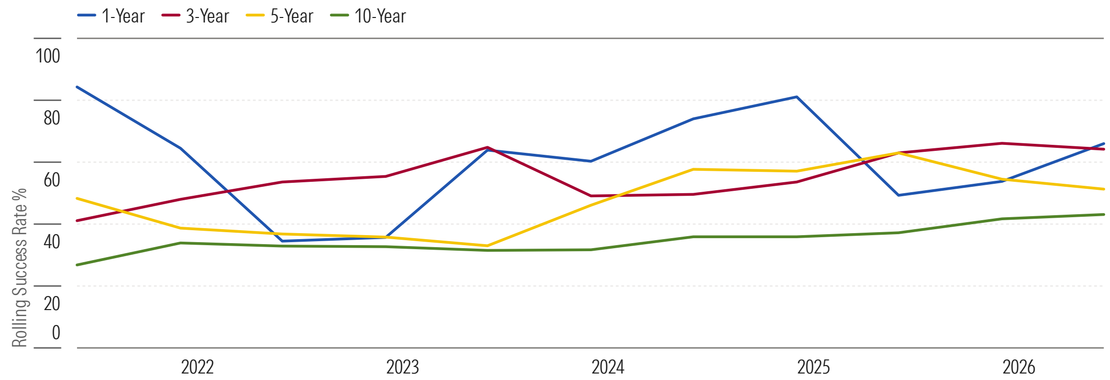
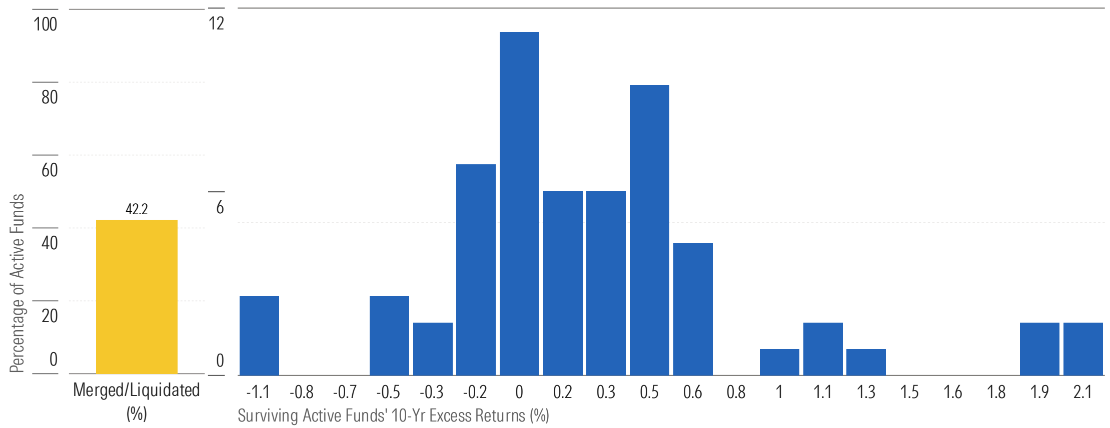


Exhibit 75 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	24	79.2	25	84.0	2.2	1.5	2.0	1.4	70.8
40th	23	56.5	25	84.0	1.9	1.5	1.8	1.4	39.1
60th	23	69.6	25	84.0	1.5	1.5	1.6	1.4	47.8
80th	23	39.1	25	84.0	1.9	1.5	2.0	1.4	34.8
100th	23	43.5	25	84.0	2.1	1.5	1.7	1.4	21.7

Exhibit 76 Mortality & Return Distribution for Surviving Active Funds



Corporate Bond

Exhibit 77 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	44	97.7	30	93.3	4.5	4.4	4.2	4.3	34.1
3-Year	52	80.8	31	83.9	5.8	5.7	5.5	5.4	32.7
5-Year	46	80.4	30	83.3	0.8	0.7	0.6	1.0	26.1
10-Year	45	75.6	28	64.3	2.5	2.5	2.7	2.6	55.6
15-Year	34	70.6	13	76.9	3.8	3.5	3.5	3.5	41.2
20-Year	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

Exhibit 78 Rolling Success Rates for Surviving Active Funds

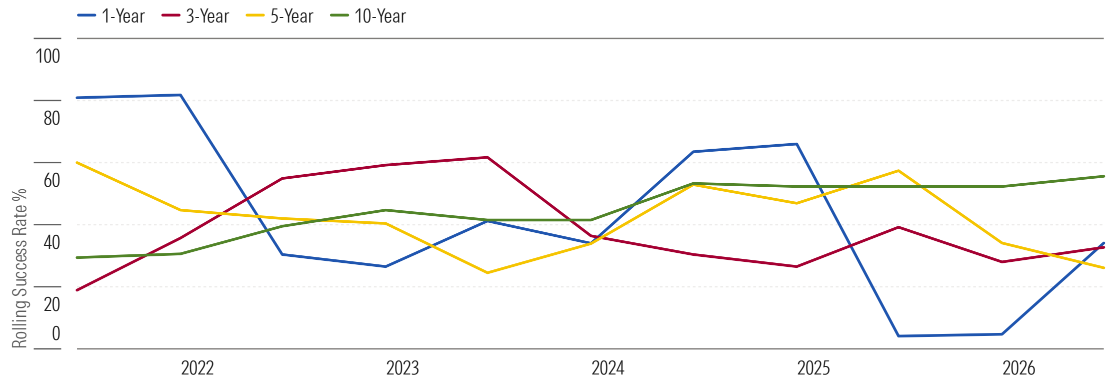
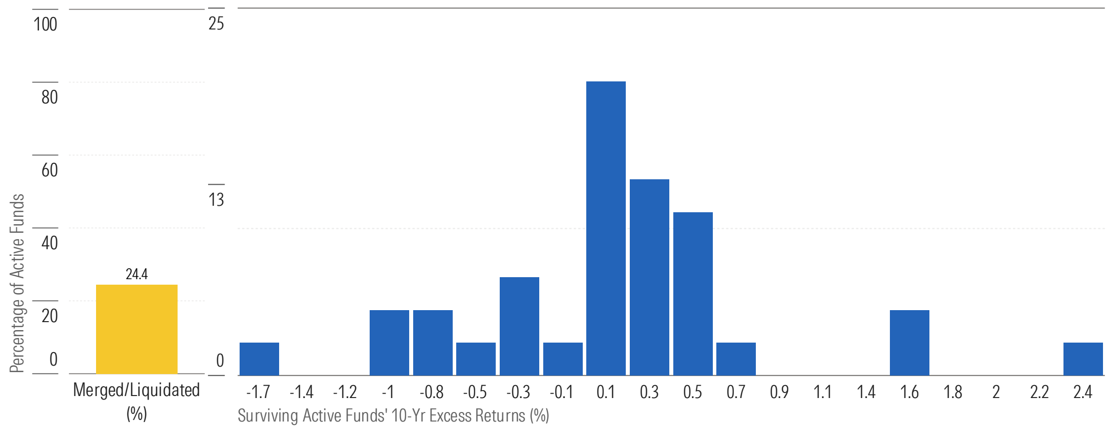


Exhibit 79 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	9	77.8	28	64.3	2.3	2.5	2.5	2.6	44.4
40th	9	88.9	28	64.3	3.0	2.5	3.0	2.6	66.7
60th	9	77.8	28	64.3	2.7	2.5	2.4	2.6	44.4
80th	9	66.7	28	64.3	2.6	2.5	2.7	2.6	55.6
100th	9	66.7	28	64.3	2.9	2.5	3.1	2.6	66.7

Exhibit 80 Mortality & Return Distribution for Surviving Active Funds



High-Yield Bond

Exhibit 81 Trailing Total Returns, Survivorship, and Success Rates

Trailing Total Return	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
1-Year	179	97.8	43	79.1	6.3	5.8	5.8	5.6	44.7
3-Year	192	84.9	58	72.4	8.7	8.4	8.2	8.2	33.3
5-Year	176	81.2	47	70.2	4.2	3.9	3.9	3.9	43.8
10-Year	198	65.7	23	52.2	5.5	5.0	5.1	5.1	42.9
15-Year	147	66.7	4	100.0	5.3	4.8	5.0	4.8	46.9
20-Year	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

Exhibit 82 Rolling Success Rates for Surviving Active Funds

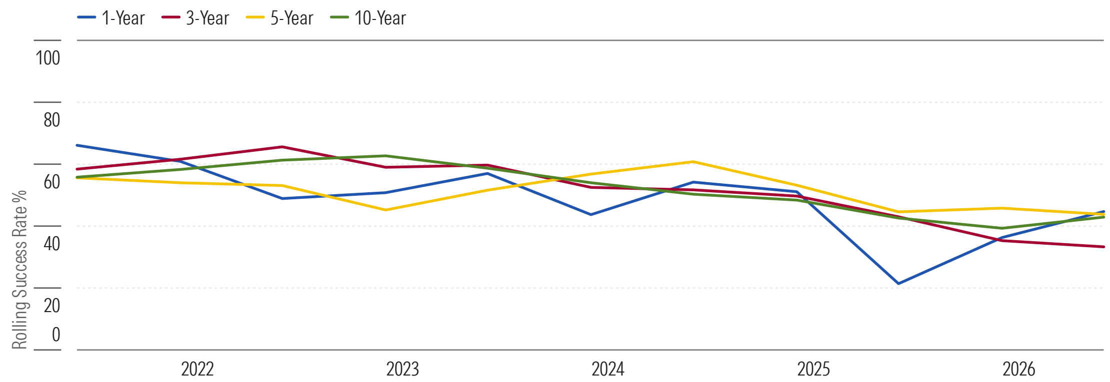
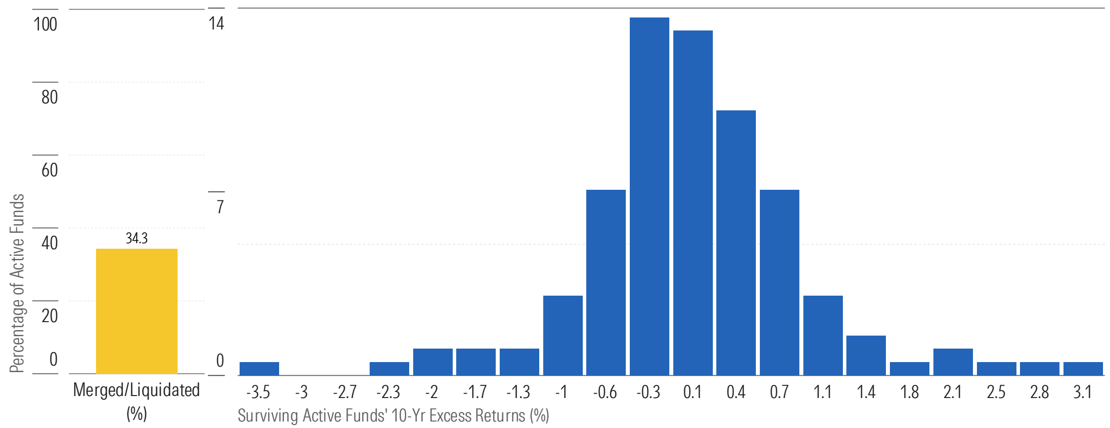


Exhibit 83 Performance by Fee Quintile, Survivorship, and Success Rates

Performance by Fee Quintile	# Active Funds (Beg.)	Active Surv Rate (%)	# Passive Funds (Beg.)	Passive Surv Rate (%)	AW Perf - Active (%)	AW Perf - Passive (%)	EW Perf - Active (%)	EW Perf - Passive (%)	Active Success Rate (%)
20th	40	67.5	23	52.2	5.5	5.0	5.4	5.1	47.5
40th	39	66.7	23	52.2	5.8	5.0	5.1	5.1	43.6
60th	40	70.0	23	52.2	5.3	5.0	5.3	5.1	50.0
80th	39	64.1	23	52.2	5.3	5.0	5.3	5.1	41.0
100th	40	60.0	23	52.2	4.7	5.0	4.6	5.1	32.5

Exhibit 84 Mortality & Return Distribution for Surviving Active Funds



Appendix

Summary of Updated Results for the Periods Ended Dec. 31, 2025

Exhibit 85 Summary Results for the Period Ended Dec. 31, 2025

Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	10-Year (Lowest Cost)*	10-Year (Highest Cost)
US Large Blend	31.5	24.0	23.6	7.9	4.1	6.2	15.6	5.2
US Large Value	60.4	49.4	35.5	20.3	10.1	10.0	31.4	14.3
US Large Growth	16.9	19.3	9.2	3.6	1.1	1.5	6.0	1.2
US Mid Blend	34.2	32.8	52.9	16.2	14.0	11.4	20.8	12.5
US Mid Value	50.8	59.3	41.7	21.8	15.3	23.5	29.2	20.8
US Mid Growth	24.5	21.2	26.8	26.9	21.2	18.4	28.6	32.5
US Small Blend	36.4	32.2	53.4	15.8	11.9	5.6	20.0	15.6
US Small Value	36.6	32.8	41.4	19.4	11.5	16.3	23.1	16.0
US Small Growth	38.7	29.1	39.1	37.0	24.8	20.1	44.2	35.7
Foreign Large Blend	37.2	38.8	32.0	22.8	27.7	17.9	38.1	20.0
Foreign Large Value	34.6	37.6	24.4	23.0	32.4	6.9	30.0	15.0
Foreign Small/Mid-Blend	40.7	45.2	44.4	22.6	23.8		42.9	16.7
Global Large Blend	25.0	14.9	22.4	11.1	8.9		26.7	6.7
Diversified Emerging Markets	64.5	53.7	34.5	29.1	35.2	31.1	47.9	20.8
Europe Stock	33.3	23.5	26.7	9.5	11.1	25.0	40.0	0.0
US Real Estate	14.0	38.1	52.7	31.3	24.3	23.6	42.9	28.6
Global Real Estate	9.5	22.2	49.0	46.2	44.9		42.9	23.1
Intermediate Core Bond	53.8	66.1	54.5	41.7	26.6	17.4	59.3	20.8
Corporate Bond	4.7	28.0	34.1	52.3	42.4		55.6	44.4
High-Yield Bond	36.3	35.3	45.8	39.3	44.3		47.5	28.2

Source: Morningstar. Data as of Dec. 31, 2025.

Summary of Updated Results for the Periods Ended June 30, 2025

Exhibit 86 Summary Results for the Period Ended June 30, 2025

Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	10-Year (Lowest Cost)*	10-Year (Highest Cost)
US Large Blend	24.3	20.8	23.7	5.5	4.8	7.1	14.3	3.9
US Large Value	46.7	52.7	38.5	16.3	9.4	10.3	22.9	12.9
US Large Growth	27.9	25.9	8.0	2.8	1.3	1.3	7.0	1.2
US Mid Blend	23.1	30.4	48.0	11.7	12.8	10.7	13.0	9.1
US Mid Value	38.5	44.3	43.9	13.2	14.8	29.2	16.0	16.7
US Mid Growth	25.0	32.3	23.8	25.1	14.8	21.0	25.6	23.8
US Small Blend	32.4	40.2	53.4	18.0	12.6	10.0	22.7	15.9
US Small Value	31.5	45.3	43.3	19.2	15.7	25.6	23.1	8.3
US Small Growth	28.4	30.6	46.1	35.6	27.1	21.2	38.6	31.8
Foreign Large Blend	50.8	44.7	42.0	23.4	28.8	20.4	35.1	13.5
Foreign Large Value	52.6	44.0	30.3	26.3	37.3		30.0	20.0
Foreign Small/Mid-Blend	65.5	61.5	44.8	23.3	38.9		33.3	0.0
Global Large Blend	23.5	21.8	25.8	7.0	16.3		6.7	7.1
Diversified Emerging Markets	35.2	50.4	31.5	30.8	33.3	31.0	44.7	21.3
Europe Stock	46.7	25.0	40.0	14.3	40.7	25.0	20.0	0.0
US Real Estate	33.9	42.9	55.4	34.3	23.3	22.5	50.0	21.4
Global Real Estate	15.2	28.9	58.0	50.8	43.5		53.8	16.7
Intermediate Core Bond	49.3	63.0	63.0	37.2	26.2	14.9	61.5	23.1
Corporate Bond	4.1	39.2	57.4	52.3	53.3		55.6	55.6
High-Yield Bond	21.4	43.0	44.6	42.6	44.8		44.7	31.6

Source: Morningstar. Data as of Dec. 31, 2025.

Methodology

Methodology

Data Source

Morningstar's US open-end and exchange-traded funds database.

Universe

All ETFs and open-end mutual funds (excluding funds of funds and money market funds) in each Morningstar Category that existed at the beginning of the relevant period (including funds that did not survive to the end of the period) defined the eligible universe. To be included, the fund's inception date must precede the start of the period and the obsolete date cannot predate the start of the period. In addition, each must have asset data for at least one share class in the month prior to the start of the sample period (the beginning of the trailing one-, three-, five-, 10-, 15-, or 20-year period) to facilitate asset weighting.

Survivorship

To calculate survivorship, we divide the number of distinct funds (based on unique fund ID at the beginning of the period) that started and ended the period in question by the total number of funds that existed at the onset of the period in question (the beginning of the trailing one-, three-, five-, 10-, 15-, or 20-year period).

Asset-Weighted Returns

We calculate the asset-weighted returns for each cohort using each share class' monthly assets and returns. When an active fund becomes obsolete, its historical data remains in the sample. Funds that incept or migrate into the category after the start of the period are not included. The passive composite takes the start of period asset-weight and applies that weighting to performance throughout the period. When a passive fund becomes obsolete, its starting weight is subsumed by the passive composite using their pro rata starting weights.

Equal-Weighted Returns

In order to come up with a single return figure for funds with multiple share classes, we first calculate the asset-weighted average of all the fund's share classes. We then take the simple equal-weighted average of the monthly returns for each fund in the group and compound those returns over the sample period. As before, when a fund becomes obsolete, its historical data remains in the sample. Funds that incept or are moved into the category after the start of the period are not included.

Source: Morningstar.

Methodology

Success Rate
The success rate indicates what percentage of funds that started the sample period went on to survive and generate a return in excess of the asset-weighted average passive fund return over the period. This approach differs from the convention of using a single, representative index to gauge success. We do not consider magnitude of outperformance in defining success: A fund that just barely beat the passive alternative counts as much as a fund that significantly outperformed. As in the equal-weighted return calculation, we calculate the asset-weighted average of all the fund's share classes to come up with a single return figure for funds with multiple share classes. We then rank the funds by their composite returns, count the number that rank higher than the equal weighted average return for the passive funds in the category, and divide that number by the number of funds at the beginning of the period (using the same number from the denominator of the survivorship calculations).

Fees
We rank each fund by its annual report expense ratio from the year prior to the start of the sample period and group them into quintiles. We then apply the same steps described above to calculate the success rates for funds in each quintile. To be counted in the starting number of funds used for purposes of calculating the survivorship and success rates, each fund must have an annual report expense ratio at the beginning of the sample period.

Excess Returns
We measure surviving active funds' excess returns relative to the asset-weighted average passive fund return in each category.

Source: Morningstar.

Approach

How is our approach different from others?

Our “benchmark” for measuring success is different from others. We measure active managers’ success relative to investable passive alternatives in the same category. For example, an active manager in the US large-blend category is measured against a composite of the performance of its index mutual fund and ETF peers (for example, Vanguard Total Stock Market Index VTSMX, SPDR S&P 500 ETF SPY, and so on). Specifically, we calculate the equal- and asset-weighted performance of the cohort of index-tracking (that is, “passive”) options in each category that we examine and use that figure as the hurdle that defines success or failure for the active funds in the same category. The magnitude of outperformance or underperformance does not influence the success rate. However, this data is reflected in the average return figures for the funds in each group, which we report separately.

We believe this is a better benchmark because it reflects the performance of actual investable options and not an index. One cannot directly invest in indexes. Their performance does not account for the real costs associated with replicating their performance and packaging and distributing them in an investable format. Also, the success rate for active managers can vary depending on one’s choice of benchmark. For example, the rate of success among US large-blend fund managers may vary depending on whether one uses the S&P 500 or the Russell 1000 Index as the basis for comparison. By using a composite of investable alternatives within funds’ relevant categories as our benchmark, we account for the frictions involved in index investing (fees, as well as others), and we mitigate the effects that might stem from cherry-picking a single index as a benchmark. The net result is a much fairer comparison of how investors in actively managed funds have fared relative to those who have opted for a passive approach.

We measure each fund’s performance based on the asset-weighted average performance of all of its share classes in calculating success rates. This approach reflects the experience of the average dollar invested in each fund. We then rank these composite fund returns from highest to lowest and count the number of funds with returns exceeding the equal-weighted average of the passive funds in the category. The success rates are defined as the ratio of these figures to the number of funds that existed at the beginning of the period. Given this unique approach, our field of study is narrower than others, as the universe of categories that contained a sufficient set of investable index-tracking funds was fairly narrow at the end of 2004. We expect the number of categories we include in this study will expand over time.

We cut along the lines of cost. Cost matters. Fees are one of the best predictors of future fund performance. We have sliced our universe into fee quintiles to highlight this relationship.

Source: Morningstar.

General Disclosure

"Morningstar" is used throughout this section to refer to Morningstar, Inc., and/or its affiliates, as applicable. Unless otherwise provided in a separate agreement, recipients of this report may only use it in the country in which the Morningstar distributor is based. Unless stated otherwise, the original distributor of the report is Morningstar Research Services LLC, a USA-domiciled financial institution.

This report is for informational purposes only, should not be the sole piece of information used in making an investment decision, and has no regard to the specific investment objectives, financial situation, or particular needs of any specific recipient. This publication is intended to provide information to assist investors in making their own investment decisions, not to provide investment advice to any specific investor. Therefore, investments discussed and recommendations made herein may not be suitable for all investors; recipients must exercise their own independent judgment as to the suitability of such investments and recommendations in the light of their own investment objectives, experience, taxation status, and financial position.

The information, data, analyses, and opinions presented herein are not warranted to be accurate, correct, complete, or timely. Unless otherwise provided in a separate agreement, neither Morningstar, Inc., nor the Research Group represents that the report contents meet all of the presentation and/or disclosure standards applicable in the jurisdiction the recipient is located.

Except as otherwise required by law or provided for in a separate agreement, the analyst, Morningstar, Inc., and the Research Group and their officers, directors, and employees shall not be responsible or liable for any trading decisions, damages, or other losses resulting from, or related to, the information, data, analyses, or opinions within the report. The Research Group encourages recipients of this report to read all relevant issue documents—a prospectus, for example—pertaining to the security concerned, including without limitation, information relevant to its investment objectives, risks, and costs before making an investment decision and, when deemed necessary, to seek the advice of a legal, tax, and/or accounting professional.

The report and its contents are not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country, or other jurisdiction where such distribution, publication, availability, or use would be contrary to law or regulation or that would subject Morningstar, Inc., or its affiliates to any registration or licensing requirements in such jurisdiction.

Where this report is made available in a language other than English and in the case of inconsistencies between the English and translated versions of the report, the English version will control and supersede any ambiguities associated with any part or section of a report that has been issued in a foreign language. Neither the analyst, Morningstar, Inc., nor the Research Group guarantees the accuracy of the translations.

This report may be distributed in certain localities, countries, and/or jurisdictions ("territories") by independent third parties or independent intermediaries and/or distributors ("distributors"). Such distributors are not acting as agents or representatives of the analyst, Morningstar, Inc., or the Research Group. In territories where a distributor distributes our report, the distributor is solely responsible for complying with all applicable regulations, laws, rules, circulars, codes, and guidelines established by local and/or regional regulatory bodies, including laws in connection with the distribution of third-party research reports.

Risk Warning

Please note that investments in securities are subject to market and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost.

A security's current investment performance may be lower or higher than the investment performance noted within the report. Morningstar's Uncertainty Rating serves as a useful data point with respect to sensitivity analysis of the assumptions used in our determining a fair value price.

Conflicts of Interest

- No material interests are held by the analyst or their immediate family with respect to the securities subject of this investment research report.
- In general, Morningstar will not hold a material interest in the security subject of this report. If a material interest is held by Morningstar, or if Morningstar owns a net long or short position in the security that is the subject of this report that exceeds 0.5% of the total issued share capital of the security, it will be disclosed at https://www.morningstar.com/company/disclosures/holdings.
- Morningstar employees' compensation is derived from Morningstar, Inc.'s overall earnings and consists of salary, bonus, and in some cases, restricted stock.

Morningstar's overall earnings are generated in part by the activities of the Investment Management and Research groups, and other affiliates, that provide services to product issuers.

- Neither Morningstar, Inc., nor its analysts receive commissions, compensation, or other material benefits from product issuers or third parties in connection with this report.
- Morningstar's overall earnings are generated in part by the activities of the Investment Management and Research groups, and other affiliates, who provide services to product issuers. Morningstar does not receive commissions for providing research and does not charge issuers to be rated.
- Morningstar employees may not pursue business or employment opportunities outside Morningstar within the investment industry (including, but not limited to, working as a financial planner, an investment professional or investment professional representative, a broker/dealer or broker/dealer agent, a financial writer, reporter, or analyst) without the approval of Morningstar's Legal and, if applicable, Compliance teams.
- Certain managed investments use an index created by and licensed from Morningstar, Inc. as their tracking index. We mitigate any actual or potential conflicts of interests resulting from that by not producing qualitative analysis on any such managed investment as well as imposing information barriers (both technology and no-technology) where appropriate and monitoring by the compliance department.
- Neither Morningstar, Inc., nor the Research Group is a market maker or a liquidity provider of the securities noted within this report.
- Neither Morningstar, Inc., nor the Research Group has been a lead manager or co-lead manager over the previous 12 months of any publicly disclosed offer of financial instruments of the issuer.
- Morningstar, Inc.'s Investment Management group has arrangements with financial institutions to provide portfolio management/investment advice, some of which an analyst may issue investment research reports on. In addition, the Investment Management group creates and maintains model portfolios whose underlying holdings can include financial products, including securities that may be the subject of this report. However, analysts do not have authority over Morningstar's Investment Management group's business arrangements or allow employees from the Investment Management group to participate or influence the analysis or opinion prepared by them.
- Morningstar, Inc., is a publicly traded company (ticker: MORN) and thus a financial institution the security of which is the subject of this report may own more than 5% of Morningstar, Inc.'s total outstanding shares. Please access Morningstar, Inc.'s proxy statement, section "Security Ownership of Certain Beneficial Owners and Management," at https://shareholders.morningstar.com/investor-relations/financials/sec-filings/default.aspx. A security's holding of Morningstar stock has no bearing on and is not a requirement for which securities Morningstar determines to cover.

Morningstar, Inc. may provide the product issuer or its related entities with services or products for a fee and on an arm's-length basis, including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship, and website advertising.

Further information on Morningstar's conflict-of-interest policies is available at http://global.morningstar.com/equitydisclosures. Please note analysts are subject to the CFA Institute's Code of Ethics and Standards of Professional Conduct.

For a list of securities the Research Group currently covers and provides written analysis on, or for historical analysis of covered securities, including fair value estimates, please contact your local Morningstar office. Morningstar Research methodologies can be found at Investor Relations | Morningstar, Inc.

For current Morningstar clients, please reach out to your respective Client Success Manager for more information on how you can best leverage this research within your firm. For all others, please reach out to our business development team at dtainsidesales@morningstar.com to learn more about Morningstar's various offerings and more details about how you can leverage this research.

For recipients in Australia: This report has been issued and distributed in Australia by Morningstar Australasia Pty. Ltd. (ABN: 95 090 665 544; AFSL: 240892). Morningstar Australasia Pty. Ltd. is the provider of the general advice ("the service") and takes responsibility for the production of this report. The service is provided through the research of investment products. To the extent the report contains general advice, it has been prepared without reference to an investor's objectives, financial situation, or needs. Investors should consider the advice in light of these matters and, if applicable, the relevant Product Disclosure Statement before making any decision to invest. Refer to our Financial Services Guide for more information at http://www.morningstar.com.au/s/fsg.pdf.

For recipients in New Zealand: This report has been issued and distributed by Morningstar Australasia Pty Ltd and/or Morningstar Research Ltd (together "Morningstar"). This report has been prepared and is intended for distribution in New Zealand to wholesale clients only and has not been prepared for use by New Zealand retail clients (as those terms are defined in the Financial Markets Conduct Act 2013).

The information, views, and any recommendations in this material are provided for general information purposes only, and solely relate to the companies and investment opportunities specified within. Our reports do not take into account any particular investor's financial situation, objectives, or appetite for risk, meaning no representation may be implied as to the suitability of any financial product mentioned for any particular investor. We recommend seeking financial advice before making any investment decision.

For recipients in Canada: This research is not prepared subject to Canadian disclosure requirements.

For recipients in Europe: This report is distributed by Morningstar Holland B.V., a wholly owned subsidiary of Morningstar, Inc. Morningstar Holland B.V. is not required to be regulated by the European Securities and Markets Authority for the provision of investment research data. The analyst/s involved in the creation of the report do not take into account any particular investor's financial situation, objectives, or appetite for risk, meaning no representation may be implied as to the suitability of any financial product mentioned for any particular investor. Registered address: Haaksbergweg 58, 9th Floor, 1101 BZ Amsterdam, North Holland, Netherlands.

Continued on next page.

General Disclosure Continued

For recipients in India: This report is issued by Morningstar Investment Research India Private Limited (formerly known as Morningstar Investment Adviser India Private Limited). Morningstar Investment Research India Private Limited is registered with SEBI as an Investment Adviser (Registration number INA000001357), as a Portfolio Manager (Registration number INP000006156) and as a Research Entity (Registration Number INH000008686). Morningstar Investment Research India Private Limited has not been the subject of any disciplinary action by SEBI or any other legal/regulatory body. Morningstar Investment Research India Private Limited is a wholly owned subsidiary of Morningstar Investment Management LLC. In India, Morningstar Investment Research India Private Limited has one associate, Morningstar India Private Limited, which provides data-related services, financial data analysis, and software development. The Research Analyst has not served as an officer, director, or employee of the fund company within the last 12 months, nor has it or its associates engaged in market-making activity for the fund company.

For Recipients in Hong Kong: The report is distributed by Morningstar Investment Management Asia Limited, which is regulated by the Hong Kong Securities and Futures Commission to provide investment research and investment advisory services to professional investors only. Neither Morningstar Investment Management Asia Limited, nor its representatives, are acting or will be deemed to be acting as an investment advisor to any recipients of this information unless expressly agreed to by Morningstar Investment Management Asia Limited.

For Recipients in Japan: This report is distributed by Morningstar Japan, Inc. for informational purposes only. Neither Morningstar Japan, Inc. nor its representatives are acting or will be deemed to be acting as an investment advisor to any recipients of this information.

For recipients in Korea: The report is distributed by Morningstar Korea Ltd., which has filed to Financial Supervisory Service, for informational purposes only. Neither Morningstar Korea Ltd., nor its representatives, are acting or will be deemed to be acting as an investment advisor to any recipients of this information.

For recipients in Singapore: This report is distributed by Morningstar Investment Adviser Singapore Pte Limited, which is licensed and regulated by the Monetary Authority of Singapore to provide financial advisory services in Singapore. Recipients of this report should contact their financial advisor in Singapore in relation to this report. Morningstar, Inc., and its affiliates rely on certain exemptions (Financial Advisers Regulations, Section 27(1)(e), Section 32, Band 32C) to provide its investment research to recipients in Singapore.

For recipients in the United Kingdom: This report is distributed by Morningstar UK Ltd, a wholly owned subsidiary of Morningstar, Inc. Morningstar UK Ltd. is not required to be registered nor authorized by the Financial Conduct Authority for the distribution of investment research data. The analyst/s involved in the creation of the report do not take into account any particular investor's financial situation, objectives, or appetite for risk, meaning no representation may be implied as to the suitability of any financial product mentioned for any particular investor. There are information barriers in place between Morningstar UK Ltd and Morningstar regulated entities based in the UK. Registered address: 1 Oliver's Yard 55-71 City Road London EC1Y 1HQ.

MORNINGSTAR®

22 West Washington Street
Chicago, IL 60602 USA

About Morningstar Manager Research
Morningstar's global manager research team conducts objective, qualitative analysis of managed investment strategies such as mutual funds and exchange-traded funds. Manager research analysts express their views through the Morningstar Medalist Rating, which takes the form of Gold, Silver, Bronze, Neutral, or Negative. The analysts arrive at a strategy's Medalist Rating by assessing key areas including its management team and supporting resources (People Pillar), its investment approach and rationale (Process Pillar), and the investment organization backing the strategy concerned (Parent Pillar). The analysts juxtapose those assessments with the strategy's cost in arriving at a final Analyst Rating, which expresses their conviction in the strategy's ability to outperform a relevant benchmark index or category peers over a market cycle, adjusted for risk. The Morningstar Medalist Rating methodology is forward-looking in nature and applied consistently across geographies and markets. (The Medalist Rating is an opinion, not a statement of fact, and is not intended to be nor is a guarantee of future performance.)

About Morningstar Manager Research Services
Morningstar Manager Research Services combines the firm's fund research reports, ratings, software, tools, and proprietary data with access to Morningstar's manager research analysts. It complements internal due-diligence functions for institutions such as banks, wealth managers, insurers, sovereign wealth funds, pensions, endowments, and foundations. Morningstar's manager research analysts are employed by various wholly owned subsidiaries of Morningstar, Inc. including but not limited to Morningstar Research Services LLC (USA), Morningstar UK Ltd, and Morningstar Australasia Pty Ltd.