

Morningstar's US Active/Passive Barometer

Year-End 2024

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Executive Summary

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 9,279 unique funds that accounted for approximately \$23 trillion in assets, or about 68% of the US fund market, at the end of 2024.

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.

Methodology Change

Until now, the passive benchmark was constructed by equal-weighting the performance of index-tracking funds within a given category. Starting with this edition of the Active/Passive Barometer, the passive composite's performance will be asset-weighted to better reflect the investment options available to an investor at the beginning of the period. As such, the asset weights are determined at the start of the period and continue throughout unless an index fund closes, in which case its starting weight is subsumed into the composite.

Key Takeaways

- Actively managed mutual funds and exchange-traded funds fell short of their passive peers in 2024. Forty-two percent of active strategies survived and beat their asset-weighted average passive counterparts last year, holding steady on their 2023 success rate.
- ► US stock-pickers struggled to a 38% success rate in 2024, a tick up from 37% in 2023. Active small-cap managers paced the group with a 43% success rate against their average passive peer. Active mid-cap (37%) and large-cap managers (37%) fell prey to a strong year from index funds.
- Active international stock strategies saw a similar lack of success in 2024. Active funds in five foreignonly Morningstar Categories saw their collective success rate decline 14 percentage points to 40% from 2023 to 2024. The success rate of active global large-blend funds, which combine foreign and domestic stocks, dropped 3 percentage points to 20%.
- Over 63% of active bond managers survived and beat their average passive peer, up 15 percentage points from 2023. Active managers in all three fixed-income Morningstar Categories we examined boosted their success rates by 6 percentage points or more. Active intermediate-core bond managers led the cohort with a 79% success rate, up 18 percentage points from 2023.
- ► Active US and global real estate strategies' success rates remained strong at 66%, up 6 percentage points from 2023. Their 10-year success rate (47%) continues to pace the category groups tracked in this report.
- Actively managed funds' long-term record against their passive peers remained stable. Less than 22% of active strategies survived and beat their passive counterparts over the 10 years through 2024. Long-term success rates were higher among real estate and bond 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 real estate and high-yield bond categories we examined, 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 2024, 28% of active funds in the cheapest quintile of their respective categories beat their average passive peer, compared with 17% for the priciest funds.



Exhibit 1 Active Funds' Succe	ess 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	28.9	26.0	20.0	5.7	4.3	8.3	13.0	1.3
US Large Value	43.7	41.1	35.4	13.7	8.3	9.1	19.1	13.2
US Large Growth	40.3	17.7	8.2	2.5	1.1	1.1	4.5	1.2
US Mid Blend	38.5	51.4	34.6	11.1	13.1	7.9	13.6	9.1
US Mid Value	40.9	47.7	47.7	24.6	14.6	30.7	29.2	29.2
US Mid Growth	33.6	20.4	29.0	25.7	12.8	19.3	30.2	23.3
US Small Blend	40.4	51.7	46.9	19.0	13.8	10.8	28.6	19.0
US Small Value	48.2	45.7	41.7	21.5	18.4	25.0	29.2	13.0
US Small Growth	42.4	33.7	49.2	34.8	25.9	21.6	36.4	36.4
Foreign Large Blend	54.3	38.8	41.5	28.9	31.3	21.1	41.7	13.9
Foreign Large Value	50.0	28.0	40.4	41.4	27.0	_	50.0	26.3
Foreign Small/Mid Blend	58.6	48.1	42.4	26.7	38.9	_	33.3	0.0
Global Large Blend	20.0	24.3	23.4	8.8	10.0	_	7.1	7.1
Diversified Emerging Markets	21.8	29.4	32.5	26.0	37.4	30.0	31.8	20.5
Europe Stock	46.7	25.0	41.2	19.0	39.3	29.7	20.0	25.0
US Real Estate	66.2	54.0	59.7	41.2	26.3	21.9	50.0	21.4
Global Real Estate	66.7	54.3	66.0	54.2	47.7	_	53.8	25.0
Intermediate Core Bond	79.3	52.8	56.9	36.7	25.7	14.2	58.1	17.9
Corporate Bond	66.0	26.0	48.0	54.5	63.3	_	60.0	55.6
High-Yield Bond	50.3	49.2	53.9	48.2	50.3	_	50.0	42.1

Source: Morningstar. Data and calculations as of Dec. 31, 2024. *Green/red shading indicates that active funds in this fee quintile had above/below-average success rates.

Exhibit 2 Year-Over-Year Change in Active Fund	s' One-Year Success Rate by	Category (%)	
	2024	2023	Year-Over-Year Change
US Large Blend	28.9	26.1	2.8
US Large Value	43.7	56.9	-13.2
US Large Growth	40.3	20.1	20.2
US Mid Blend	38.5	47.0	-8.5
US Mid Value	40.9	75.9	-35.0
US Mid Growth	33.6	22.5	11.0
US Small Blend	40.4	45.3	-4.9
US Small Value	48.2	53.3	-5.1
US Small Growth	42.4	24.7	17.7
Foreign Large Blend	54.3	51.2	3.1
Foreign Large Value	50.0	57.3	-7.3
Foreign Small/Mid Blend	58.6	58.1	0.6
Global Large Blend	20.0	23.5	-3.5
Diversified Emerging Markets	21.8	58.3	-36.5
Europe Stock	46.7	11.8	34.9
US Real Estate	66.2	47.7	18.5
Global Real Estate	66.7	77.8	-11.1
Intermediate Core Bond	79.3	60.6	18.7
Corporate Bond	66.0	29.4	36.6
High-Yield Bond	50.3	44.3	6.0



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

	2018	2	2019	2	020		2021	2	022		2023		2024		
	Jun	Dec	Trend												
US Large Blend	29.1	24.5	28.9	28.2	23.1	23.7	40.6	35.3	49.9	58.5	27.1	26.1	36.7	28.9	
US Large Value	44.1	23.0	23.0	39.5	39.5	46.8	54.4	44.5	32.7	37.8	58.0	56.9	54.5	43.7	~~~
US Large Growth	40.4	44.6	42.6	18.1	15.7	26.6	35.7	14.8	35.8	51.1	22.0	20.1	40.9	40.3	~~~
US Mid Blend	20.3	29.6	37.8	37.3	14.8	10.6	30.4	76.5	64.8	64.0	41.6	47.0	46.2	38.5	~~~
US Mid Value	39.0	20.5	21.9	46.8	56.8	64.0	59.6	51.4	40.2	48.6	62.3	75.9	59.8	40.9	✓
US Mid Growth	51.4	62.4	72.4	60.7	51.4	52.8	45.3	41.9	54.3	40.7	58.9	22.5	25.0	33.6	~~~
US Small Blend	16.8	18.6	29.0	34.4	22.1	24.7	40.2	78.2	78.2	65.7	62.1	45.3	53.1	40.4	~~~
US Small Value	30.9	16.7	17.2	35.0	40.5	38.3	48.3	57.8	74.2	53.5	52.6	53.3	54.0	48.2	<u></u>
US Small Growth	50.2	53.8	54.2	39.1	47.5	55.6	64.2	63.6	52.6	44.0	36.9	24.7	39.2	42.4	~~~
Foreign Large Blend	33.2	30.9	30.9	48.9	49.5	40.4	42.3	50.8	41.5	43.9	62.5	51.2	45.0	54.3	
Foreign Large Value	38.9	15.2	15.7	36.7	65.2	68.1	45.2	30.1	29.7	26.9	59.6	57.3	36.7	50.0	√ ~
Foreign Small/Mid Blend	31.4	21.2	36.7	53.1	39.4	36.4	55.2	55.6	50.0	59.3	69.2	58.1	63.3	58.6	~~~~
Global Large Blend	38.0	30.9	37.3	41.9	29.7	35.1	57.7	45.5	43.1	47.7	41.4	23.5	25.2	20.0	~~~
Diversified Emg Mrkts	43.6	24.6	35.4	58.6	50.2	55.8	63.4	41.1	22.4	28.1	71.7	58.3	48.0	21.8	~~~
Europe Stock	33.3	25.0	20.0	52.6	72.2	76.5	66.7	53.3	37.5	25.0	31.3	11.8	41.2	46.7	✓
US Real Estate	62.7	35.7	27.9	50.8	56.3	66.1	52.5	67.2	73.3	52.4	60.0	47.7	67.7	66.2	~~~~
Global Real Estate	38.3	64.4	75.4	72.2	77.8	69.8	76.0	83.7	85.1	13.0	84.4	77.8	57.8	66.7	
Intermediate Core Bond	50.8	39.8	19.0	31.6	25.0	52.0	85.7	68.0	37.4	38.2	60.0	60.6	72.4	79.3	~~~
Corporate Bond	67.3	51.9	9.1	19.0	19.2	56.0	81.3	82.6	29.2	26.0	38.5	29.4	64.2	66.0	\\\
High-Yield Bond	51.3	27.8	31.4	59.7	59.7	67.0	66.7	61.0	48.6	50.8	56.9	44.3	53.8	50.3	~~~



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

	Active Funds			Passive Funds	3		Difference Between Passive and Active Returns		
Category	Asset- Weighted	Equal- Weighted	Difference	Asset- Weighted	Equal- Weighted	Difference	Asset- Weighted	Equal- Weighted	
US Large Blend	11.1	10.4	0.7	12.8	12.3	0.5	1.7	2.0	
US Large Value	9.3	8.6	0.7	9.5	9.4	0.1	0.2	0.8	
US Large Growth	14.2	13.1	1.1	16.5	14.5	2.0	2.3	1.4	
US Mid Blend	8.5	7.8	0.8	9.5	9.2	0.3	1.0	1.4	
US Mid Value	8.4	7.9	0.5	8.6	8.4	0.2	0.2	0.4	
US Mid Growth	10.2	10.1	0.1	10.4	10.1	0.3	0.2	0.0	
US Small Blend	7.9	7.7	0.2	8.6	7.9	0.6	0.7	0.3	
US Small Value	7.9	7.3	0.6	8.0	7.4	0.6	0.1	0.1	
US Small Growth	9.4	9.0	0.4	8.9	8.7	0.2	-0.6	-0.4	
Foreign Large Blend	5.0	4.8	0.2	5.2	5.0	0.1	0.2	0.2	
Foreign Large Value	4.9	4.5	0.3	4.1	4.6	-0.6	-0.8	0.1	
Foreign Small/Mid Blend	4.8	4.8	0.0	5.0	5.0	0.0	0.3	0.2	
Global Large Blend	8.2	8.1	0.1	9.5	9.7	-0.2	1.4	1.6	
Diversified Emerging Markets	3.6	3.4	0.2	3.7	3.6	0.1	0.1	0.2	
Europe Stock	4.8	5.3	-0.5	5.8	5.8	-0.1	0.9	0.6	
US Real Estate	5.5	5.1	0.4	5.0	3.9	1.0	-0.5	-1.1	
Global Real Estate	2.7	2.9	-0.3	0.6	1.5	-0.9	-2.1	-1.4	
Intermediate Core Bond	1.6	1.6	0.0	1.3	1.2	0.1	-0.3	-0.4	
Corporate Bond	2.3	2.5	-0.1	2.4	2.2	0.2	0.0	-0.3	
High-Yield Bond	4.6	4.4	0.2	4.1	4.3	-0.2	-0.5	0.0	



Results by Category

US Large-Cap Funds

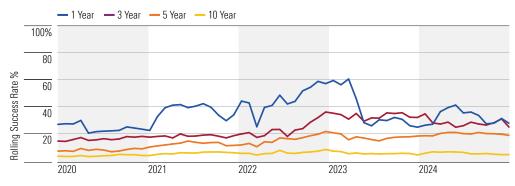
- ► The US large-cap equity market has been a difficult place for active funds to succeed in the long run. Just 7% of them survived and beat their average passive rival over the decade through December 2024. That fell well short of the 22% and 26% success rates for active mid- and small-cap managers, 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, nearly 65% closed and just 1% managed to outperform their average indexed peer.
- Active US large-cap managers fared better in 2024, though. Their 37% success rate in 2024 marked a 4-percentage-point increase from 2023. Active large-growth managers posted a 40% one-year success rate, up from 20% in 2023, while large-value managers' success rate dropped 13 percentage points from the prior year.
- Expensive active large-cap funds must overcome long odds to succeed: Less than 5% of them beat a composite of their passive peers over the decade through 2024, compared with 12% of cheaper 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 large-cap categories and time periods.
- Over the decade through 2024, passive large-growth funds beat their active peers by 2.3 percentage points annualized on an asset-weighted basis—the widest performance margin across all Morningstar Categories. Passive large-blend funds posted a 1.7-percentage-point annual advantage over the same span.
- ► The median 10-year excess return for surviving active funds was negative across all three US large-cap categories, and the distributions of excess returns for the blend, growth, and value categories had a negative skew. Not only was the likelihood of picking a successful manager low, but the penalty for poor manager selection tended to be far greater than the reward for choosing a winner.



Exhibit 5 US Large Blend

	Active Funds			Passive Funds Pe		hted :e	Equal-Weig Performand			
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)	
Trailing Total Return										
1-Year	457	95.4	211	98.1	20.8	24.1	20.1	21.8	28.9	
3-Year	400	85.3	216	89.8	8.0	8.4	6.7	7.2	26.0	
5-Year	380	77.6	202	88.1	12.9	14.0	11.9	12.9	20.0	
10-Year	385	61.6	112	85.7	11.1	12.8	10.4	12.3	5.7	
15-Year	462	49.1	127	66.1	11.8	13.7	11.4	13.3	4.3	
20-Year	457	37.9	111	55.0	9.2	10.2	9.0	9.9	8.3	
Performance by Fee Qu	intile									
(Trailing 10 Years)										
20th Percentile	77	61.0	112	85.7	12.0	12.8	11.6	12.3	13.0	
40th Percentile	76	63.2	112	85.7	10.7	12.8	10.6	12.3	2.6	
60th Percentile	76	71.1	112	85.7	10.5	12.8	10.5	12.3	5.3	
80th Percentile	76	67.1	112	85.7	9.8	12.8	10.2	12.3	6.6	
100th Percentile	77	48.1	112	85.7	6.9	12.8	8.5	12.3	1.3	

Exhibit 6 Rolling Success Rates for Surviving Active US Large-Blend Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 7 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Large-Blend Funds

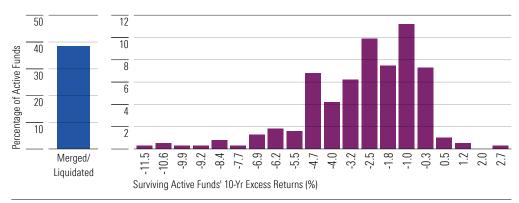
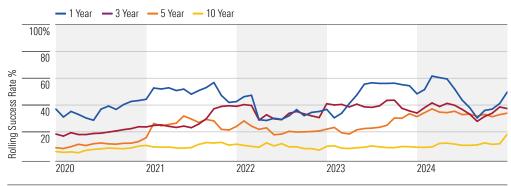




Exhibit 8 US Large Value

	Active Funds			Passive Funds Pe		Asset-Weighted Performance		hted e		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)	
Trailing Total Return										
1-Year	341	97.1	110	96.4	13.9	14.8	14.0	14.7	43.7	
3-Year	331	91.5	104	91.3	6.3	6.5	6.1	6.4	41.1	
5-Year	316	79.4	108	81.5	9.7	9.5	9.2	9.5	35.4	
10-Year	342	62.0	54	96.3	9.3	9.5	8.6	9.4	13.7	
15-Year	326	51.2	35	85.7	11.0	11.5	10.2	11.4	8.3	
20-Year	374	39.3	21	66.7	8.5	8.7	7.7	8.4	9.1	
Performance by Fee Qu	intile									
(Trailing 10 Years)										
20th Percentile	68	54.4	54	96.3	10.0	9.5	9.2	9.4	19.1	
40th Percentile	68	67.6	54	96.3	8.9	9.5	8.7	9.4	13.2	
60th Percentile	67	76.1	54	96.3	8.8	9.5	8.6	9.4	13.4	
80th Percentile	68	61.8	54	96.3	7.9	9.5	8.1	9.4	10.3	
100th Percentile	68	52.9	54	96.3	7.5	9.5	8.1	9.4	13.2	

Exhibit 9 Rolling Success Rates for Surviving Active US Large-Value Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 10 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Large-Value Funds

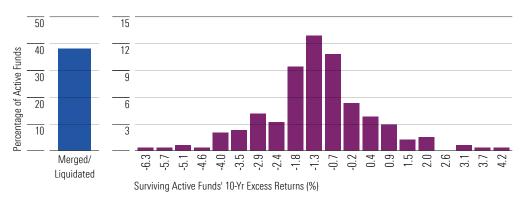
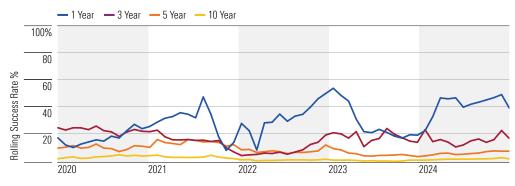




Exhibit 11 US Large Growth

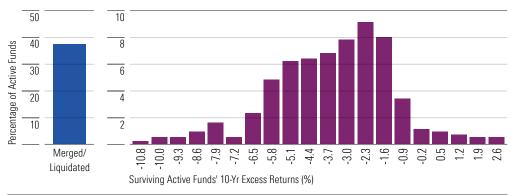
	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	352	95.7	82	98.8	30.1	30.4	28.1	28.3	40.3
3-Year	372	86.8	80	92.5	7.2	9.2	6.4	7.2	17.7
5-Year	376	81.6	67	88.1	15.5	18.3	14.6	15.6	8.2
10-Year	438	62.6	46	82.6	14.2	16.5	13.1	14.5	2.5
15-Year	465	49.2	32	90.6	14.3	16.9	13.4	15.8	1.1
20-Year	461	34.1	28	78.6	11.4	13.5	10.4	11.9	1.1
Performance by Fee Qu	iintile								
(Trailing 10 Years)									
20th Percentile	88	65.9	46	82.6	14.1	16.5	14.0	14.5	4.5
40th Percentile	87	65.5	46	82.6	15.8	16.5	13.7	14.5	4.6
60th Percentile	88	64.8	46	82.6	13.5	16.5	13.0	14.5	1.1
80th Percentile	88	64.8	46	82.6	12.5	16.5	12.4	14.5	1.1
100th Percentile	86	52.3	46	82.6	13.0	16.5	12.1	14.5	1.2

Exhibit 12 Rolling Success Rates for Surviving Active US Large-Growth Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 13 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Large-Growth Funds





US Mid-Cap Funds

- ► Thirty-seven percent of active mid-cap funds survived and outpaced the average passive peer over the 12 months through 2024, a decline of 8 percentage points from one year earlier.
- While the headline active mid-cap success rate decreased, the different mid-cap categories saw mixed results. Active mid-cap value funds' success rates declined by 35 percentage points, while active mid-cap growth managers improved by 11 percentage points.
- Mid-cap funds hunt at the "crossroads" of large- and small-cap companies, which leads to 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.
- ► These extremes are partly evidence of the "crossroads" status of the mid-cap category, which is populated with many funds that may have portfolios that bleed into other market-cap segments and styles.

Exhibit 14 US Mid-Blend

	Active Funds			Passive Funds Pe		Asset-Weighted Performance		hted e		
	# at Beginning		# at Beginning of Period	Survivorship		Passive (%)	Active (%)	Passive (%)	Active Success	
	of Period	Rate (%)	oi reilou	Rate (%)	(70)	(70)	(70)	(70)	Rate (%)	
Trailing Total Return										
1-Year	122	97.5	74	100.0	13.9	15.3	13.7	15.0	38.5	
3-Year	111	91.9	71	90.1	3.8	3.6	4.5	4.2	51.4	
5-Year	104	80.8	65	81.5	9.8	9.9	9.6	9.7	34.6	
10-Year	108	50.9	48	77.1	8.5	9.5	7.8	9.2	11.1	
15-Year	137	52.6	36	83.3	11.0	11.8	10.5	11.6	13.1	
20-Year	139	47.5	29	62.1	8.2	9.4	8.1	9.2	7.9	
Performance by Fee Q	uintile									
(Trailing 10 Years)										
20th Percentile	22	50.0	48	77.1	9.6	9.5	8.3	9.2	13.6	
40th Percentile	21	71.4	48	77.1	8.1	9.5	8.5	9.2	14.3	
60th Percentile	21	47.6	48	77.1	8.0	9.5	8.3	9.2	14.3	
80th Percentile	21	42.9	48	77.1	5.1	9.5	7.0	9.2	4.8	
100th Percentile	22	40.9	48	77.1	8.0	9.5	6.7	9.2	9.1	



Exhibit 15 Rolling Success Rates for Surviving Active US Mid-Blend Funds

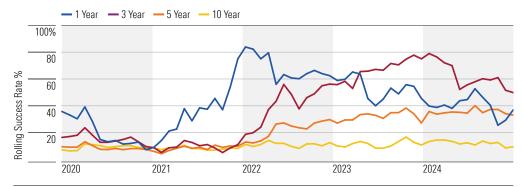


Exhibit 16 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Mid-Blend Funds

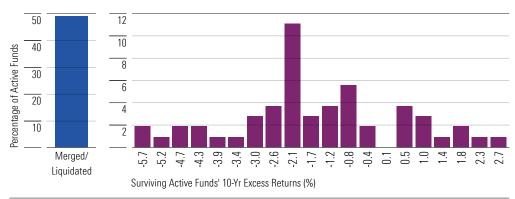
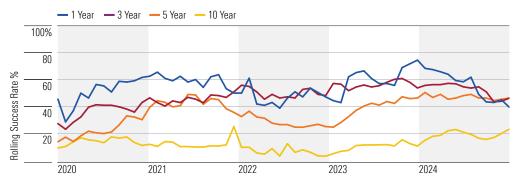




Exhibit 17 US Mid-Value

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand			
	# at Beginning		# at Beginning			Passive				
	of Period	Rate (%)	of Period	Rate (%)	(%)	(%)	(%)	(%)	Rate (%)	
Trailing Total Return										
1-Year	110	96.4	33	93.9	11.1	11.7	11.1	11.7	40.9	
3-Year	107	88.8	34	85.3	5.7	5.0	5.0	5.8	47.7	
5-Year	111	79.3	28	82.1	9.8	8.6	9.2	8.5	47.7	
10-Year	118	66.1	22	86.4	8.4	8.6	7.9	8.4	24.6	
15-Year	123	46.3	15	93.3	10.3	11.1	10.1	11.1	14.6	
20-Year	101	56.4	7	85.7	7.8	8.1	8.0	8.1	30.7	
Performance by Fee Qu	intile									
(Trailing 10 Years)										
20th Percentile	24	62.5	22	86.4	8.8	8.6	8.5	8.4	29.2	
40th Percentile	23	69.6	22	86.4	8.6	8.6	7.9	8.4	21.7	
60th Percentile	24	75.0	22	86.4	7.8	8.6	7.4	8.4	12.5	
80th Percentile	23	73.9	22	86.4	7.2	8.6	8.0	8.4	30.4	
100th Percentile	24	50.0	22	86.4	7.8	8.6	8.0	8.4	29.2	

Exhibit 18 Rolling Success Rates for Surviving Active US Mid-Value Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 19 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Mid-Value Funds

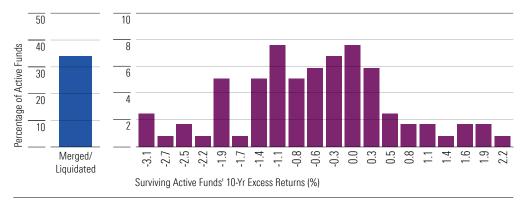
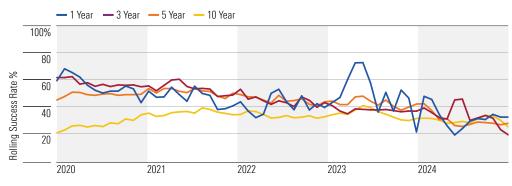




Exhibit 20 US Mid-Growth

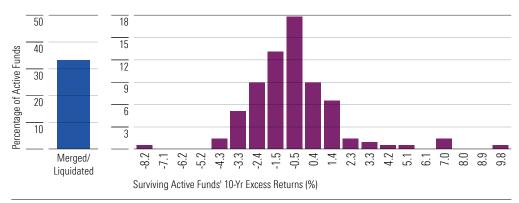
	Active Funds			Passive Funds Pe		hted e	Equal-Weig Performand			
	# at Beginning of Period	Survivorship Rate (%)	0 0	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)	
Trailing Total Return										
1-Year	149	97.3	27	96.3	12.9	17.7	16.7	16.9	33.6	
3-Year	162	87.7	36	83.3	-0.9	2.4	0.3	1.4	20.4	
5-Year	176	83.5	33	84.8	8.9	10.6	10.1	10.1	29.0	
10-Year	214	66.8	22	81.8	10.2	10.4	10.1	10.1	25.7	
15-Year	243	50.6	14	85.7	11.6	12.6	11.6	12.2	12.8	
20-Year	300	36.7	8	75.0	9.6	9.6	9.2	9.2	19.3	
Performance by Fee Qu	iintile									
(Trailing 10 Years)										
20th Percentile	43	72.1	22	81.8	10.2	10.4	10.0	10.1	30.2	
40th Percentile	42	73.8	22	81.8	10.0	10.4	9.7	10.1	23.8	
60th Percentile	43	58.1	22	81.8	9.7	10.4	9.8	10.1	18.6	
80th Percentile	42	69.0	22	81.8	12.0	10.4	10.9	10.1	33.3	
100th Percentile	43	62.8	22	81.8	10.3	10.4	10.2	10.1	23.3	

Exhibit 21 Rolling Success Rates for Surviving Active US Mid-Growth Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 22 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Mid-Growth Funds





US Small-Cap Funds

- Over 43% of active small-cap strategies survived and outpaced their average passive rival in 2024, a slight improvement over 2023.
- Long-term active success rates have been higher in the small-cap arena than those among large-cap funds. That may be because the small-cap market is relatively less efficiently priced.
- ► Relative success versus large caps hasn't amounted to much for active small-cap managers. Just 26% survived and outperformed their average passive peer over the decade through 2024. Still, active small-growth managers had the best odds of success (35%) among US equity categories over the past 10 years.

Exhibit 23 US Sma	III Blend				Asset-Weig				
	Active Funds		Passive Funds				Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	178	93.8	73	95.9	11.2	11.5	11.1	10.5	40.4
3-Year	172	88.4	74	85.1	2.8	2.3	2.6	2.2	51.7
5-Year	194	77.8	67	83.6	8.9	8.4	8.6	8.1	46.9
10-Year	211	60.7	50	72.0	7.9	8.6	7.7	7.9	19.0
15-Year	188	54.8	41	70.7	10.0	11.1	9.9	10.6	13.8
20-Year	166	48.8	29	62.1	8.1	8.5	7.4	8.0	10.8
Performance by Fee Qu	intile								
(Trailing 10 Years) 20th Percentile	42	66.7	50	72.0	8.6	8.6	8.0	7.9	28.6
40th Percentile	42	69.0		72.0		8.6		7.9	14.3
60th Percentile	42	57.1	50	72.0		8.6		7.9	14.3
80th Percentile	41	58.5		72.0		8.6		7.9	17.1
100th Percentile	42	52.4		72.0		8.6		7.9	19.0



Exhibit 24 Rolling Success Rates for Surviving Active US Small-Blend Funds

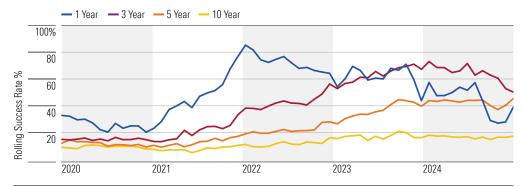


Exhibit 25 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Small-Blend Funds

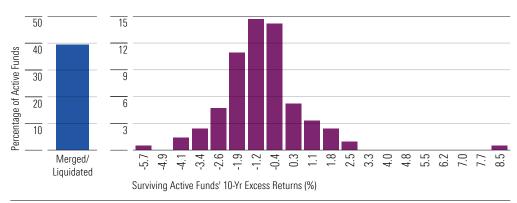
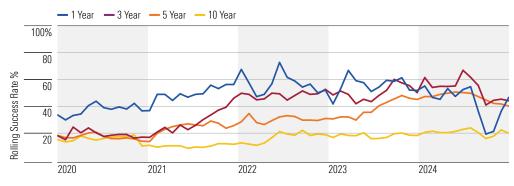




Exhibit 26 US Small Value

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand			
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period			Passive (%)		Passive (%)	Active Success Rate (%)	
Trailing Total Return										
1-Year	139	96.4	31	96.8	9.3	9.3	9.2	7.1	48.2	
3-Year	127	89.8	25	100.0	5.0	4.4	4.6	3.3	45.7	
5-Year	120	75.0	26	92.3	9.9	8.7	9.5	8.8	41.7	
10-Year	121	65.3	19	94.7	7.9	8.0	7.3	7.4	21.5	
15-Year	114	61.4	11	90.9	9.9	10.5	9.7	9.9	18.4	
20-Year	124	54.0	9	77.8	7.7	7.8	7.6	7.4	25.0	
Performance by Fee Qu	intile									
(Trailing 10 Years)										
20th Percentile	24	66.7	19	94.7	7.7	8.0	7.7	7.4	29.2	
40th Percentile	23	91.3	19	94.7	8.3	8.0	7.8	7.4	17.4	
60th Percentile	23	82.6	19	94.7	8.4	8.0	7.5	7.4	30.4	
80th Percentile	24	37.5	19	94.7	6.3	8.0	6.6	7.4	20.8	
100th Percentile	23	52.2	19	94.7	7.3	8.0	6.5	7.4	13.0	

Exhibit 27 Rolling Success Rates for Surviving Active US Small-Value Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 28 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Small-Value Funds

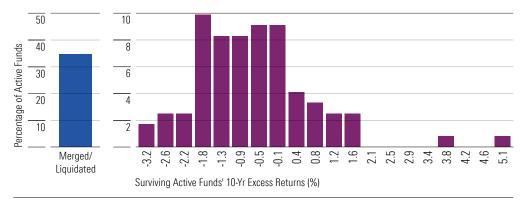
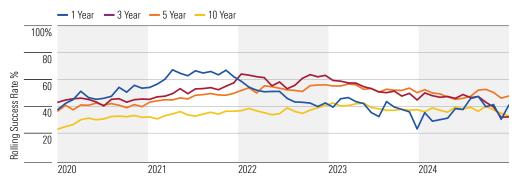




Exhibit 29 US Small Growth

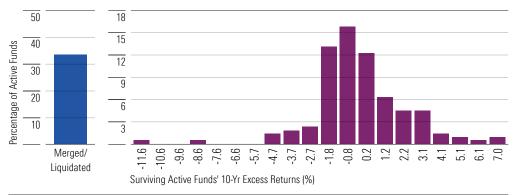
	Active Funds			Passive Funds Pe		Asset-Weighted Performance		Equal-Weighted Performance	
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)		Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	165	93.9	16	100.0	13.5	14.5	15.0	10.1	42.4
3-Year	175	89.1	18	88.9	-1.5	0.4	-1.1	-0.9	33.7
5-Year	189	82.0	16	100.0	7.7	7.6	8.5	8.0	49.2
10-Year	221	66.5	14	100.0	9.4	8.9	9.0	8.7	34.8
15-Year	228	53.5	10	100.0	11.6	11.5	11.0	11.0	25.9
20-Year	287	41.8	8	87.5	8.7	8.8	8.2	8.5	21.6
Performance by Fee Qu	intile								
(Trailing 10 Years)									
20th Percentile	44	70.5	14	100.0	9.6	8.9	8.9	8.7	36.4
40th Percentile	44	68.2	14	100.0	9.1	8.9	9.0	8.7	29.5
60th Percentile	43	72.1	14	100.0	9.7	8.9	9.8	8.7	53.5
80th Percentile	44	63.6	14	100.0	8.0	8.9	8.0	8.7	20.5
100th Percentile	44	61.4	14	100.0	9.9	8.9	9.6	8.7	36.4

Exhibit 30 Rolling Success Rates for Surviving Active US Small-Growth Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 31 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Small-Growth Funds





Foreign Stock

- Active managers that weave global- or foreign-stock portfolios succeeded at a 37% clip in 2024, down 12 percentage points from 2023. Active diversified emerging-markets funds' success rates dropped 36 percentage points to 22% from 2023 to 2024, while Europe-stock managers improved their success rates to 47%, up 35 percentage points from 2023.
- ► The global- and foreign-stock categories have been a bit kinder to active managers than US market segments. At 27%, foreign-stock funds' 10-year active success rate measured up better than the 15% 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 43%, this category's 10-year survivorship rate ranked the lowest among all categories tested.
- ► Foreign-stock funds often come with higher fees than domestic strategies. The cheapest quintile of active funds was twice as likely to beat their average passive peer than the most expensive quintile over the past 10 years.

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weighted Performance			
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	Active Success Rate (%	
Trailing Total Return										
1-Year	197	93.9	90	97.8	5.1	4.4	5.0	4.6	54.3	
3-Year	196	84.2	95	90.5	1.3	1.0	0.8	1.3	38.8	
5-Year	188	76.1	100	81.0	4.7	4.5	4.3	4.4	41.5	
10-Year	180	61.1	52	82.7	5.0	5.2	4.8	5.0	28.9	
15-Year	192	47.9	44	72.7	5.4	5.1	4.9	5.0	31.3	
20-Year	166	38.6	23	52.2	5.3	4.8	4.7	4.6	21.′	
Performance by Fee Qu	intile									
(Trailing 10 Years)										
20th Percentile	36	63.9	52	82.7	5.0	5.2	5.2	5.0	41.7	
40th Percentile	35	60.0	52	82.7	5.2	5.2	5.1	5.0	31.4	
60th Percentile	36	80.6	52	82.7	4.4	5.2	5.0	5.0	38.9	
80th Percentile	35	51.4	52	82.7	5.9	5.2	4.5	5.0	20.0	
100th Percentile	36	50.0	52	82.7	4.4	5.2	4.3	5.0	13.9	



Exhibit 33 Rolling Success Rates for Surviving Active Foreign Large-Blend Funds

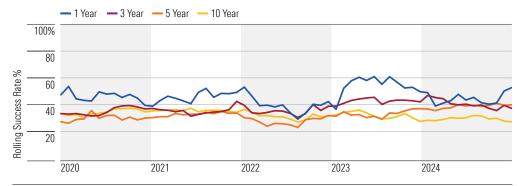


Exhibit 34 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Foreign Large-Blend Funds

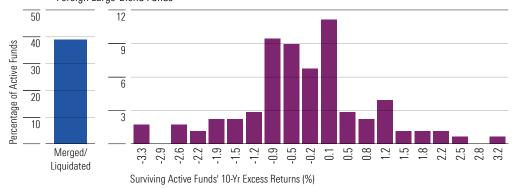
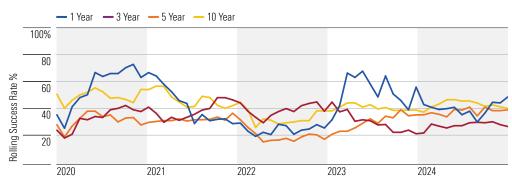




Exhibit 35 Foreign Large Value

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)		Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	102	92.2	39	87.2	3.6	4.6	4.2	4.3	50.0
3-Year	93	83.9	39	82.1	3.6	4.7	3.6	3.8	28.0
5-Year	94	72.3	38	73.7	5.5	4.8	4.9	4.4	40.4
10-Year	99	59.6	19	68.4	4.9	4.1	4.5	4.6	41.4
15-Year	100	54.0	5	60.0	5.1	4.9	4.6	4.8	27.0
Performance by Fee Qu (Trailing 10 Years)	intile								
20th Percentile	20	55.0	19	68.4	5.4	4.1	5.2	4.6	50.0
40th Percentile	19	52.6	19	68.4	5.1	4.1	4.8	4.6	47.4
60th Percentile	19	68.4	19	68.4	4.4	4.1	4.6	4.6	47.4
80th Percentile	19	68.4	19	68.4	3.6	4.1	4.3	4.6	42.1
100th Percentile	19	57.9	19	68.4	4.3	4.1	3.8	4.6	26.3

Exhibit 36 Rolling Success Rates for Surviving Active Foreign Large-Value Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 37 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Foreign Large-Value Funds

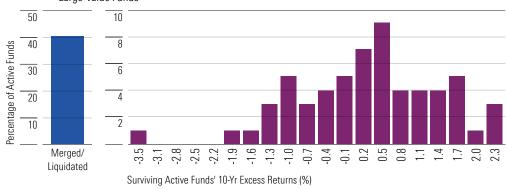
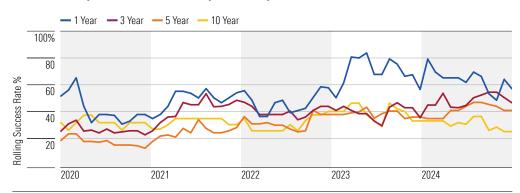




Exhibit 38 Foreign Small/Mid-Blend

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	29	100.0	7	100.0	3.5	2.0	2.5	3.6	58.6
3-Year	27	85.2	7	100.0	-1.1	-2.9	-2.5	-1.4	48.1
5-Year	33	54.5	9	88.9	3.8	2.7	2.7	3.5	42.4
10-Year	30	43.3	8	87.5	4.8	5.0	4.8	5.0	26.7
15-Year	18	61.1	8	62.5	5.9	5.7	5.9	5.0	38.9
Performance by Fee Quint (Trailing 10 Years)	ile								
20th Percentile	6	50.0	8	87.5	4.8	5.0	4.3	5.0	33.3
40th Percentile	6	50.0	8	87.5	3.7	5.0	4.4	5.0	33.3
60th Percentile	5	40.0	8	87.5	4.7	5.0	6.0	5.0	40.0
80th Percentile	6	50.0	8	87.5	5.5	5.0	5.9	5.0	33.3
100th Percentile	6	33.3	8	87.5	4.1	5.0	3.2	5.0	0.0

Exhibit 39 Rolling Success Rates for Surviving Active Foreign Small/Mid-Blend Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 40 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Foreign

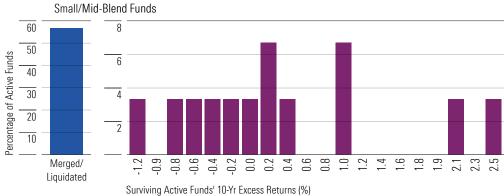
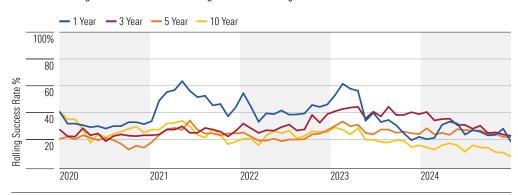




Exhibit 41 Global Large Blend

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	115	87.8	24	95.8	13.4	17.0	12.2	14.2	20.0
3-Year	107	81.3	28	78.6	4.1	5.4	3.1	4.2	24.3
5-Year	94	77.7	23	91.3	8.7	9.7	8.2	9.2	23.4
10-Year	68	80.9	12	100.0	8.2	9.5	8.1	9.7	8.8
15-Year	40	77.5	6	100.0	8.4	9.8	8.4	9.9	10.0
Performance by Fee Qui	ntile								
(Trailing 10 Years)									
20th Percentile	14	92.9	12	100.0	8.3	9.5	8.6	9.7	7.1
40th Percentile	13	84.6	12	100.0	7.7	9.5	8.1	9.7	0.0
60th Percentile	14	78.6	12	100.0	8.5	9.5	8.3	9.7	21.4
80th Percentile	13	76.9	12	100.0	7.1	9.5	7.9	9.7	7.7
100th Percentile	14	71.4	12	100.0	7.6	9.5	7.4	9.7	7.1

Exhibit 42 Rolling Success Rates for Surviving Active Global Large-Blend Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 43 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Global Large-Blend Funds

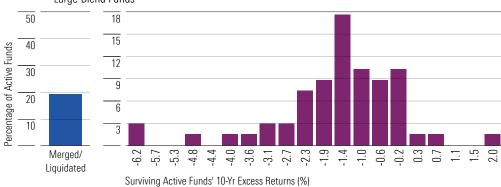
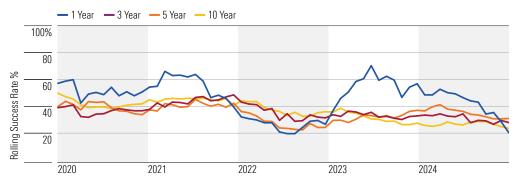




Exhibit 44 Diversified Emerging Markets

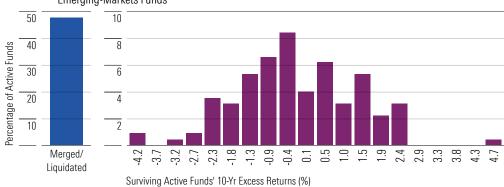
	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	243	91.8	79	94.9	6.0	8.7	5.8	6.7	21.8
3-Year	231	81.4	77	87.0	-2.7	-0.8	-2.3	-0.6	29.4
5-Year	240	67.1	81	75.3	1.9	2.5	2.1	2.3	32.5
10-Year	227	52.4	59	57.6	3.6	3.7	3.4	3.6	26.0
15-Year	115	61.7	32	65.6	3.4	2.7	2.9	2.4	37.4
20-Year	70	61.4	4	75.0	5.5	5.6	5.4	5.4	30.0
Performance by Fee Qu	intile								
(Trailing 10 Years)									
20th Percentile	44	52.3	59	57.6	4.7	3.7	3.5	3.6	31.8
40th Percentile	44	52.3	59	57.6	2.7	3.7	3.4	3.6	20.5
60th Percentile	44	65.9	59	57.6	2.1	3.7	3.2	3.6	27.3
80th Percentile	44	61.4	59	57.6	3.5	3.7	3.6	3.6	31.8
100th Percentile	44	36.4	59	57.6	3.2	3.7	3.0	3.6	20.5

Exhibit 45 Rolling Success Rates for Surviving Active Diversified Emerging-Markets Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 46 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Diversified Emerging-Markets Funds



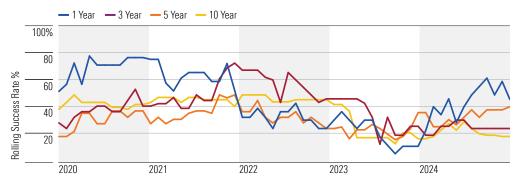
Source: Morningstar. Data and calculations as of Dec. 31, 2024.

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Exhibit 47 Europe Stock

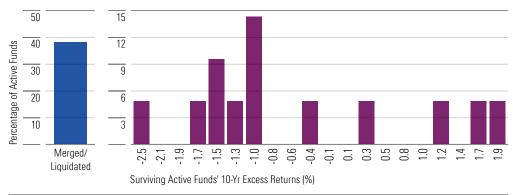
	Active Funds				Asset-Weighted Performance		Equal-Weighted Performance			
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)	
Trailing Total Return	0110100	11010 (70)				(70)		(70)		
1-Year	15	100.0	26	100.0	2.5	2.5	2.7	3.6	46.7	
3-Year	16	93.8	27	96.3	0.4	1.4	-1.1	1.2	25.0	
5-Year	17	82.4	35	74.3	4.8	5.3	5.0	5.0	41.2	
10-Year	21	61.9	22	72.7	4.8	5.8	5.3	5.8	19.0	
15-Year	28	42.9	28	67.9	5.1	4.5	5.0	4.3	39.3	
20-Year	37	32.4	18	88.9	5.1	4.9	5.1	4.5	29.7	
Performance by Fee Quit	ntile									
(Trailing 10 Years)										
20th Percentile	5	60.0	22	72.7	4.7	5.8	5.3	5.8	20.0	
40th Percentile	4	75.0	22	72.7	5.3	5.8	5.8	5.8	25.0	
60th Percentile	4	75.0	22	72.7	4.5	5.8	4.4	5.8	0.0	
80th Percentile	4	75.0	22	72.7	6.0	5.8	5.4	5.8	25.0	
100th Percentile	4	25.0	22	72.7	5.1	5.8	5.2	5.8	25.0	

Exhibit 48 Rolling Success Rates for Surviving Active Europe-Stock Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 49 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Europe-Stock Funds





Real Estate

- Over the decade through 2024, 47% of actively managed real estate funds survived and beat their average passive peer, marking the highest success rate among category groups tracked in this study.
- 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 United States, while others are more truly global. Differences in performance between US and ex-US real estate securities cause active managers' success rates to ebb and flow. In 2024, active global real estate funds succeeded 67% of the time, a decline of 11 percentage points from the year prior.

Exhibit 50 US Real Estate

	Active Funds			Passive Funds Pe		Asset-Weighted Performance		Equal-Weighted Performance	
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	65	90.8	35	97.1	6.3	5.0	7.1	4.4	66.2
3-Year	63	82.5	31	96.8	-3.5	-4.6	-3.7	-4.8	54.0
5-Year	62	74.2	32	87.5	3.7	2.7	3.6	2.0	59.7
10-Year	68	64.7	18	77.8	5.5	5.0	5.1	3.9	41.2
15-Year	76	56.6	11	72.7	8.5	8.8	8.2	8.4	26.3
20-Year	73	53.4	5	80.0	6.3	6.6	6.0	6.3	21.9
Performance by Fee Qu	intile								
(Trailing 10 Years)									
20th Percentile	14	64.3	18	77.8	5.4	5.0	5.4	3.9	50.0
40th Percentile	13	53.8	18	77.8	5.4	5.0	4.7	3.9	38.5
60th Percentile	14	71.4	18	77.8	5.2	5.0	5.1	3.9	42.9
80th Percentile	13	76.9	18	77.8	6.2	5.0	5.7	3.9	53.8
100th Percentile	14	57.1	18	77.8	4.7	5.0	4.4	3.9	21.4



Exhibit 51 Rolling Success Rates for Surviving Active US Real Estate Funds

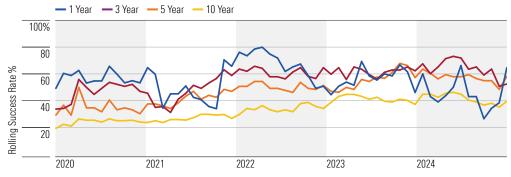


Exhibit 52 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active US Real Estate Funds

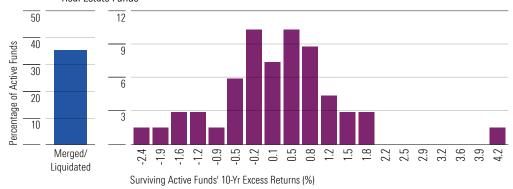




Exhibit 53 Global Real Estate

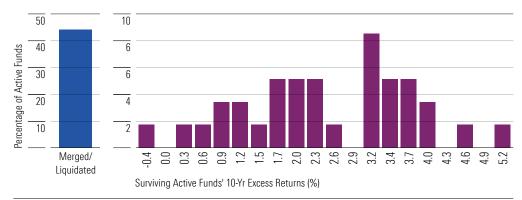
	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	0 0	Survivorship Rate (%)		Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	45	88.9	16	87.5	0.1	0.0	1.3	-2.0	66.7
3-Year	46	80.4	14	92.9	-6.4	-6.5	-5.8	-7.2	54.3
5-Year	53	71.7	13	84.6	-0.6	-2.9	0.0	-2.6	66.0
10-Year	59	55.9	13	76.9	2.7	0.6	2.9	1.5	54.2
15-Year	44	50.0	11	63.6	4.8	3.3	5.0	3.9	47.7
Performance by Fee Qui	intile								
(Trailing 10 Years)									
20th Percentile	13	61.5	13	76.9	2.7	0.6	3.0	1.5	53.8
40th Percentile	10	60.0	13	76.9	2.5	0.6	2.5	1.5	60.0
60th Percentile	12	75.0	13	76.9	2.7	0.6	3.0	1.5	75.0
80th Percentile	11	63.6	13	76.9	3.2	0.6	3.4	1.5	63.6
100th Percentile	12	25.0	13	76.9	2.6	0.6	2.6	1.5	25.0

Exhibit 54 Rolling Success Rates for Surviving Active Global Real Estate Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 55 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Global Real Estate Funds





Fixed Income

- ► Active bond managers' success rates increased for all three categories we examined in 2024. Active intermediate core bond managers led the pack with a sterling 79% success rate, up 18 percentage points from 2023.
- Actively managed funds in the intermediate core bond category tend to take more credit risk than indexed peers. That extra dose of risk aided active managers when credit spreads narrowed in 2023 and 2024.
- ► Fixed income has been a fertile hunting ground for active managers. Over the past decade, 45% survived and beat their average passive peer. The reward for picking a successful manager also outweighed the penalty of failure for active bond managers, based on positively skewed 10-year excess returns.

Exhibit 56 Intermediate Core Bond **Asset-Weighted Equal-Weighted Active Funds Passive Funds** Performance Performance # at Beginning Survivorship # at Beginning Survivorship Active Passive Active Passive Active Success of Period (%) Rate (%) of Period Rate (%) (%) (%) (%) Rate (%) **Trailing Total Return** 1-Year 145 97.9 32 100.0 1.3 1.9 1.4 79.3 18 123 91.1 32 -2.2 3-Year 96.9 -2.2 -2.4 -2.4 52.8 33 -0.3 0.0 5-Year 123 81.3 87.9 0.2 -0.4 56.9 10-Year 139 55.4 27 88.9 1.6 1.3 1.6 1.2 36.7 15-Year 179 38.0 21 76.2 2.6 2.3 2.5 2.1 25.7 20-Year 247 25.1 47.4 2.8 3.0 2.7 2.8 14.2 **Performance by Fee Quintile** (Trailing 10 Years) 20th Percentile 31 64.5 27 88.9 2.0 1.3 1.9 1.2 58.1 40th Percentile 24 58.3 27 88.9 1.5 1.3 1.5 1.2 25.0 60th Percentile 27 66.7 27 88.9 1.4 1.3 1.5 1.2 44.4 80th Percentile 27 37.0 27 88.9 1.6 1.3 1.6 1.2 29.6 100th Percentile 27 88.9 1.3 1.3 1.2 17.9 46.4 11



Exhibit 57 Rolling Success Rates for Surviving Active Intermediate Core Bond Funds

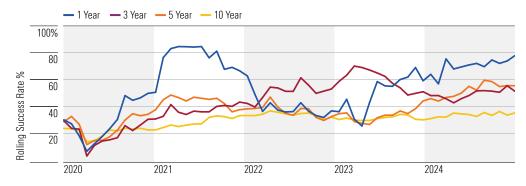


Exhibit 58 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Intermediate Core Bond Funds

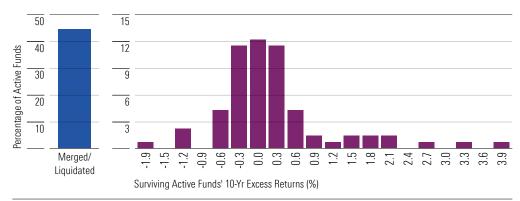
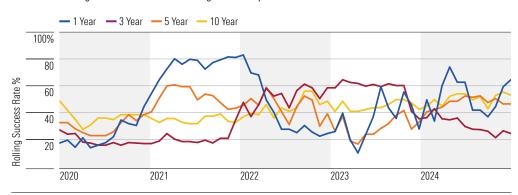




Exhibit 59 Corporate Bond

	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)		Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	50	88.0	30	93.3	3.1	2.7	3.0	2.7	66.0
3-Year	50	86.0	31	83.9	-1.7	-1.8	-1.8	-1.9	26.0
5-Year	50	80.0	23	87.0	0.7	0.4	0.8	0.9	48.0
10-Year	44	81.8	30	50.0	2.3	2.4	2.5	2.2	54.5
15-Year	30	80.0	8	100.0	4.1	3.8	4.0	3.9	63.3
Performance by Fee Qu (Trailing 10 Years)	intile								
20th Percentile	10	100.0	30	50.0	2.2	2.4	2.5	2.2	60.0
40th Percentile	8	87.5	30	50.0	2.6	2.4	2.8	2.2	62.5
60th Percentile	8	75.0	30	50.0	2.6	2.4	2.1	2.2	37.5
80th Percentile	9	66.7	30	50.0	2.5	2.4	2.6	2.2	55.6
100th Percentile	9	77.8	30	50.0	2.4	2.4	2.4	2.2	55.6

Exhibit 60 Rolling Success Rates for Surviving Active Corporate Bond Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 61 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active Corporate Bond Funds

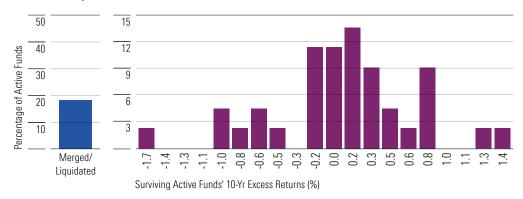
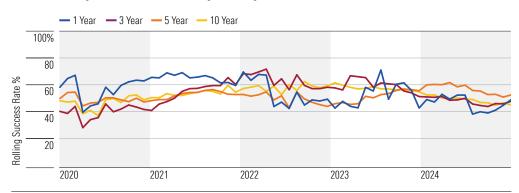




Exhibit 62 High-Yield Bond

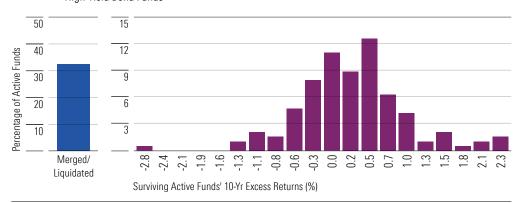
	Active Funds		Passive Funds		Asset-Weig Performand		Equal-Weig Performand		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)		Passive (%)		Passive (%)	Active Success Rate (%)
Trailing Total Return									
1-Year	187	94.7	56	94.6	8.0	7.7	7.8	7.4	50.3
3-Year	187	86.6	47	78.7	2.9	2.6	2.7	2.8	49.2
5-Year	191	77.5	46	67.4	4.0	3.4	3.7	3.4	53.9
10-Year	191	67.5	19	47.4	4.6	4.1	4.4	4.3	48.2
15-Year	147	65.3	3	100.0	5.9	5.3	5.5	5.1	50.3
Performance by Fee Qu (Trailing 10 Years)	intile								
20th Percentile	38	68.4	19	47.4	4.8	4.1	4.5	4.3	50.0
40th Percentile	38	65.8	19	47.4	4.9	4.1	4.5	4.3	52.6
60th Percentile	37	73.0	19	47.4	4.5	4.1	4.5	4.3	54.1
80th Percentile	38	65.8	19	47.4	3.8	4.1	4.3	4.3	44.7
100th Percentile	38	68.4	19	47.4	4.0	4.1	4.0	4.3	42.1

Exhibit 63 Rolling Success Rates for Surviving Active High-Yield Bond Funds



Source: Morningstar. Data and calculations as of Dec. 31, 2024.

Exhibit 64 Mortality and Distribution of 10-Year Annualized Excess Returns for Surviving Active High-Yield Bond Funds





Appendix ASummary of Results for the Periods Ended June 30, 2024 and Dec. 31, 2023

Exhibit 65 Summary Results for the Period Ended June 30, 2024

	Active Funds'	Success Rate	es by Categoi	y (%)				
							10-Year	10-Year
Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	(Lowest Cost)	(Highest Cost
US Large Blend	36.7	27.2	21.3	7.4	4.8	8.8	11.8	3.9
US Large Value	54.5	42.4	37.9	13.5	8.7	12.4	19.4	12.1
US Large Growth	40.9	12.8	5.9	2.3	1.0	0.4	6.9	0.0
US Mid Blend	46.2	57.1	36.1	14.0	11.9	10.6	21.7	8.7
US Mid Value	59.8	56.1	49.5	22.3	16.2	30.4	30.4	18.2
US Mid Growth	25.0	47.0	26.6	29.3	13.1	14.6	39.5	25.6
US Small Blend	53.1	73.0	45.6	18.6	16.3	15.6	26.8	22.0
US Small Value	54.0	68.3	51.7	24.3	22.5	23.6	26.1	13.6
US Small Growth	39.2	50.3	47.5	40.7	24.1	21.5	46.7	34.1
Foreign Large Blend	45.0	42.0	40.7	31.8	28.9	21.4	35.1	22.2
Foreign Large Value	36.7	28.6	40.2	46.9	28.7	_	50.0	40.0
Foreign Small/Mid Blend	63.3	46.2	45.5	32.1	38.9	_	50.0	16.7
Global Large Blend	25.2	32.4	28.6	12.5	15.8	_	0.0	7.7
Diversified Emerging Markets	48.0	35.9	37.8	29.8	40.2	30.1	33.3	31.0
Europe Stock	41.2	31.3	33.3	30.0	37.0	25.0	25.0	25.0
US Real Estate	67.7	73.3	59.4	46.4	24.7	22.5	57.1	28.6
Global Real Estate	57.8	76.6	64.8	58.2	47.8	_	66.7	27.3
Intermediate Core Bond	72.4	49.6	56.5	35.5	26.6	12.7	57.1	21.4
Corporate Bond	64.2	31.3	53.8	55.6	62.1	_	77.8	55.6
High-Yield Bond	53.8	51.4	61.3	50.5	51.0	_	48.6	40.5



Exhibit 66 Summary Results for the Period Ended Dec. 31, 2023

Active Funds' Success Rates by Category (%)

Active runds Success Rates by Category (%)								
Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	10-Year (Lowest Cost)	10-Year (Highest Cost)
Category	i icai	J Icai	J IGai	io icai	15 Teal	20 1601	(LOWEST COST)	(Highest Cost)
US Large Blend	26.1	33.3	19.5	5.5	5.3	7.8	7.8	5.3
US Large Value	56.9	38.2	36.1	11.6	13.2	11.4	17.5	9.5
US Large Growth	20.1	14.8	4.2	1.6	0.8	0.4	6.7	0.0
US Mid Blend	47.0	76.5	28.8	12.4	14.5	10.9	16.7	4.2
US Mid Value	75.9	55.2	47.7	12.0	13.4	11.9	13.6	9.1
US Mid Growth	22.5	38.0	43.3	32.7	15.3	13.2	48.8	20.9
US Small Blend	45.3	68.7	41.3	17.8	16.1	13.2	27.5	22.5
US Small Value	53.3	51.7	46.7	19.8	26.3	22.0	31.8	9.1
US Small Growth	24.7	46.2	51.7	37.5	23.4	20.8	45.8	34.9
Foreign Large Blend	51.2	43.7	38.6	29.2	26.8	20.6	29.7	13.5
Foreign Large Value	57.3	22.6	36.7	40.2	14.9	_	57.9	31.6
Foreign Small/Mid Blend	58.1	37.0	37.5	34.6	33.3	_	50.0	40.0
Global Large Blend	23.5	40.4	25.6	17.2	21.1	_	7.7	7.7
Diversified Emerging Markets	58.3	34.4	38.5	27.3	43.4	23.6	40.5	24.3
Europe Stock	11.8	26.7	36.8	17.4	28.6	22.7	20.0	20.0
US Real Estate	47.7	63.8	58.7	38.8	27.3	22.1	57.1	23.1
Global Real Estate	77.8	77.6	64.8	58.9	41.7	_	66.7	45.5
Intermediate Core Bond	60.6	52.5	45.6	31.5	26.0	12.9	51.7	13.8
Corporate Bond	29.4	37.0	34.5	43.9	61.5	_	55.6	25.0
High-Yield Bond	44.3	52.7	57.1	53.9	_	-	58.3	36.1



Appendix B—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.

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.



Appendix C—How Our Approach Compares With Others'

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.



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