PCS ADVISORS

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The Next Chapter in the Active vs. Passive Debate

2024

The Active vs. Passive Debate

- The question of whether active management can benefit investor returns can not be answered with a simple yes or no, but rather with:
    - Where: In which asset classes?
    - When: In which market environments?
    - How: What type of active managers should be selected?

- The use of active management should focus on areas of the market estimated to be less efficient. This is often measured by examining how the respective peer group of active managers performs versus its benchmark over various time periods

- To increase the odds of success in utilizing active management investors should seek to:
    - Use active managers in asset classes where the <u>benchmark regularly falls near or below</u> the median active manager
    - Prioritize asset classes where the <u>magnitude of outperformance</u> by active managers has the potential to be meaningful
    - Favor asset classes where <u>effective manager selection</u> can enhance results to an even greater degree
    - Understand that <u>patience is required</u> as even the great long-term performing managers will trail their benchmarks over shorter time periods

Pragmatic Not Programmatic

- There are far fewer top quartile managers that outperform in efficient asset classes (US large or mid cap) while more outperform in less efficient markets (international and small cap)

- The best active managers that outperform in less efficient markets also achieved stronger relative returns compared to efficient markets

Source: Morningstar, Fiducient Advisors' analysis; as of December 31, 2023.

Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvest dividends and capital gains. Past performance does not indicate future performance and there is a possibility of a loss. See disclosure page for indices representing each asset class.

Finding the Top Quartile

- Maximizing the odds of selecting a top quartile manager matters
- Intermediate Bond and Large Cap Core managers that ranked below the top quartile consistently underperformed
- Selecting top quartile managers in Small Cap Value, was crucial to success, with the median manager only adding value 31% of the time
- The median manager in emerging markets underperformed more times than it outperformed while top quartile performers show the ability to add significant value
- Before investing, investors need to make a concerted effort to understand a manager's investment process, sub-style, and whether they possess competitive advantages over their peers that improve the odds of ranking in the top quartile

Batting averages of rolling three-year periods over the last ten years

	% of Rolling 3-year periods:					
	Below -4% excess return	**Between -2% and -4% excess return**	**Between 0% and -2% excess return**	**Between 0% and +2% excess return**	**Between +2% and +4% excess return**	**Above +4% excess return**
Intermediate Bond						
25% percentile			7%	**93%**		
50% percentile			**79%**	21%		
75% percentile			**97%**	3%		
Large Cap Core						
25% percentile			**86%**	14%		
50% percentile			**100%**			
75% percentile		72%	28%			
Small Cap Value						
25% percentile			17%	59%	10%	14%
50% percentile		10%	59%	24%	7%	
75% percentile		48%	34%	17%		
Emerging Markets						
25% percentile			3%	55%	34%	7%
50% percentile			59%	41%		
75% percentile		48%	52%			

Manager adds value

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Patience Required

- Even the best managers will go through periods of underperformance; patience continues to be a prerequisite for success

- 92% of ten-year top quartile mutual funds were unable to avoid at least one three-year stretch in the bottom half of their peer group

- 58% of ten-year top quartile mutual funds were unable to avoid at least one five-year period in the bottom half of their peer group

- Top quartile mutual funds with three-year stretches in the bottom half of their peer group spend, on average, nearly six consecutive quarters below the median

Ten-year top quartile funds that fell below median during one or more three- and five-year periods

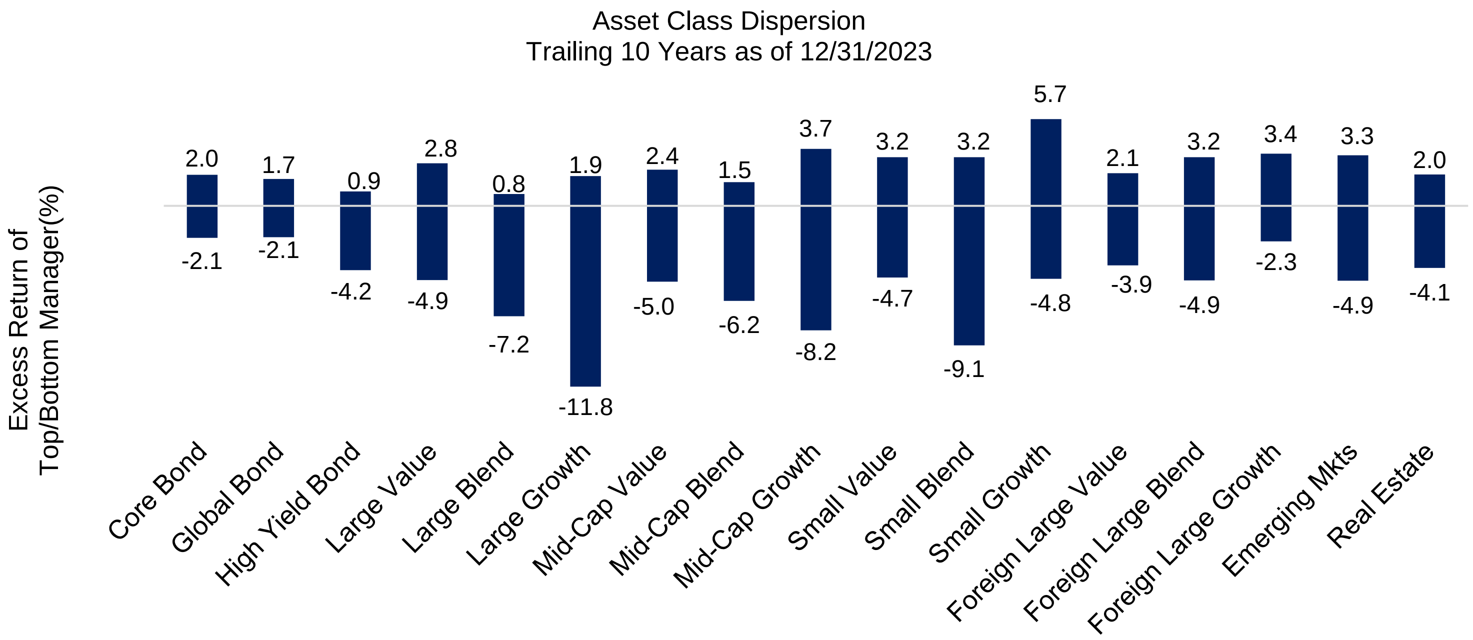
Category	Number of Funds with 10-Year Track Records	Number of 10-Year Top Quartile Active Managers	Number of 10-Year Top Quartile Active Managers Below Median For a 3-Year Period	Percent of 10-Year Top Quartile Active Managers Below Median For a 3-Year Period	Average Number of Consecutive Quarters Spent In Bottom Half of Peer Group	Number of 10-Year Top Quartile Funds Below Median For a 5-Year Period	Percent of 10-Year Top Quartile Active Managers Below Median For a 5-Year Period
Intermediate Bond	84	23	18	78%	4.2	14	61%
High Yield Bond	129	34	29	85%	5.9	20	59%
International/Global Bond	34	9	8	89%	4.5	5	56%
Large Cap Value	233	57	53	93%	3.9	29	51%
Large Cap Core	240	41	37	90%	4.7	23	56%
Large Cap Growth	249	56	44	79%	4.9	26	46%
Mid Cap Value	80	21	20	95%	4.7	11	52%
Mid Cap Core	71	20	19	95%	4.3	9	45%
Mid Cap Growth	111	30	30	100%	6.0	23	77%
Small Cap Value	100	25	25	100%	6.4	20	80%
Small Cap Core	132	32	31	97%	6.5	21	66%
Small Cap Growth	131	34	33	97%	6.2	22	65%
International Value	63	15	15	100%	6.8	12	80%
International Core	115	33	31	94%	6.6	20	61%
International Growth	70	18	16	89%	4.7	6	33%
Emerging Markets	122	33	33	100%	8.5	23	70%
Real Estate	44	12	10	83%	3.4	3	25%
Total	**2008**	**493**	**452**				
Weighted Average				**92%**	**5.5**	**287**	**58%**

Source: Morningstar, Fiducient Advisors' analysis; as of December 31, 2023.

Many fund families offer multiple versions of the same fund, but with variations of the fees that are charged and investor qualifications.
Morningstar's "distinct portfolio only" feature removes all duplicate options. Morningstar normally designates the oldest share class as the distinct portfolio.
Morningstar data is not immune to survivorship bias. Each mutual fund that survived the ten-year stretch was captured regardless of performance. In addition, the Morningstar data generates returns net of expenses.
All ten-year calculations across the paper reflect the period from December 31 2013 – December 31 2023.

Impact of Manager Selection

- For many asset classes, the difference between the top and bottom performing manager is wide
- The average asset class dispersion is 7.9%, supporting the need for manager selection



Source: Morningstar, Fiducient Advisors' analysis; as of December 31, 2023.

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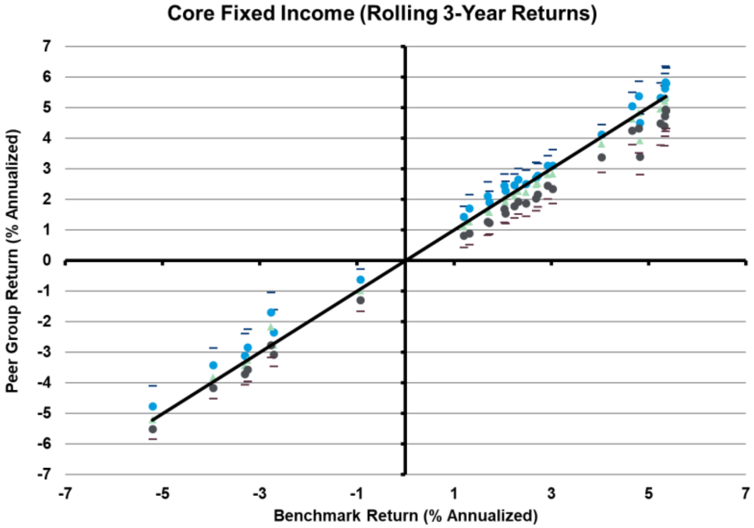
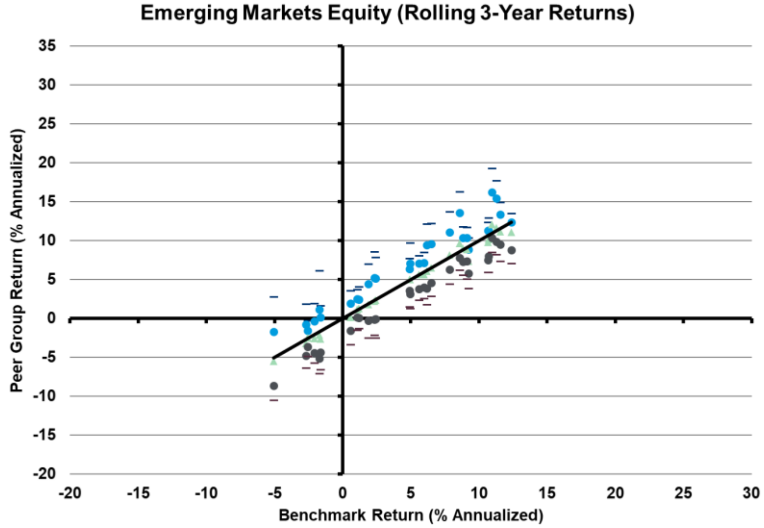
Maximize the Probability of Success

- Top quartile managers in both Core Fixed Income and Emerging Markets Equity outperformed in virtually all benchmark return environments
- The dispersion of active manager results further supports the need for strong manager selection

Rolling three-year peer group returns vs. Bloomberg US Aggregate



Rolling three-year peer group returns vs. MSCI EM



10th Percentile
75th Percentile
25th Percentile
90th Percentile
50th Percentile
Linear (Benchmark)

Source: Morningstar, Fiducient Advisors' analysis; as of December 31, 2023.

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For more information, please see our white paper: The Next Chapter in the Active vs. Passive Debate.

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