

Active vs. Passive Investments

Definitions:

Passive Investing

- An investing strategy that tracks a market-weighted index or portfolio.
- The investor receives the index return minus the management fee
- Reduces investment fees vs. active management
- Replaces the uncertainty of under or outperforming the Index with an “average” return

Active Investing

- Active strategies are where the manager makes specific investments with the goal of outperforming their index.
- Active strategies begin with the premise that an “active” selection of investment assets based on manager investment skill and/or the exploitation of certain market inefficiencies will result in a higher return than holding the entire basket of market assets

Smart Beta Investing

- Smart beta refers to an investment style where the manager passively follows an index designed to take advantage of perceived systematic biases or inefficiencies in the market
- Smart beta strategies attempt to deliver a better risk and return trade-off than conventional market cap weighted indices by using alternative weighting schemes based on measures such as volatility or dividends
- Smart Beta fund fees are normally between Active and Passive managers fees

The Active vs. Passive Debate

- The benefits of active management versus a comparable passively managed investment is an ongoing debate
- While the debate is academically interesting, the only responsible answer must be “it depends on the asset class or market segment”
- Large efficient markets are more difficult to produce alpha (Beat the Index)

The Active vs. Passive Debate

The Case for Active Investing

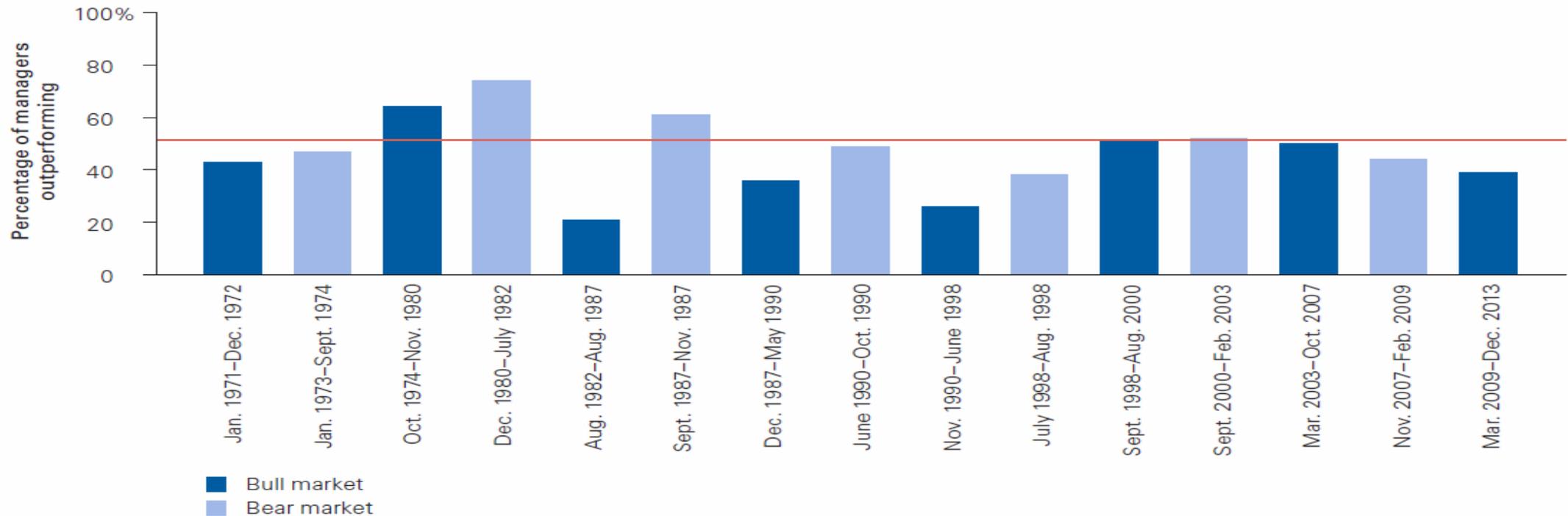
- *Markets are efficient*, but investors are not - if no market is entirely efficient, then there is the potential for active outperformance
- *Avoid concentration risk* - if a sector or stock becomes a large position relative to others in the index, an active manager can react accordingly
- *Markets need active investors* - markets will not function properly without active management, as someone has to do the “dirty work”
- *Market cycles have different performance attributes*

Market Cycles

Equity Example

- A case can be made for active or passive management, depending on the time period, or “regime”, analyzed
- Active management tends to perform better during periods of weak absolute returns

Figure 9. Percentage of managers outperforming market during bull and bear cycles

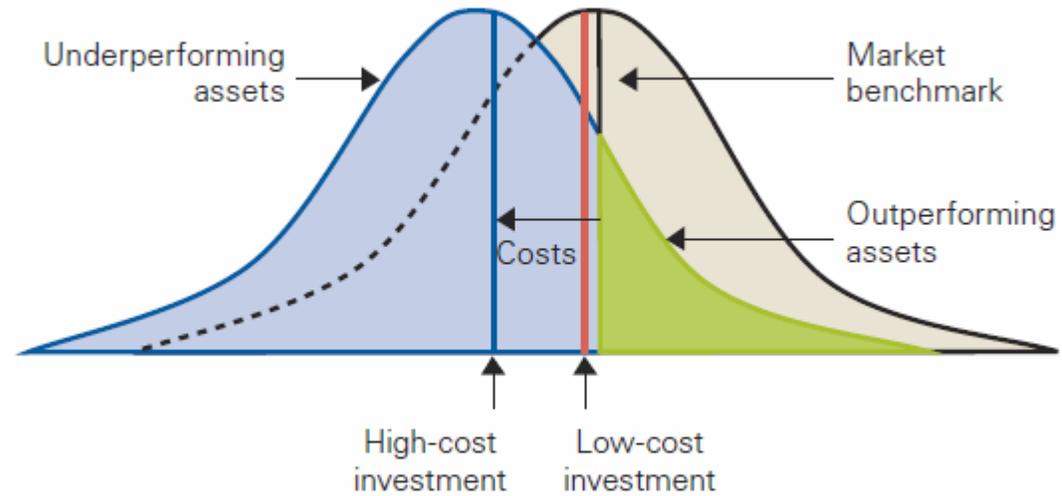


The Active vs. Passive Debate

The Case for Passive Investing

- *Lower fees* - guaranteed “head start” relative to active Management
- *Lower maintenance* - no benchmark risk due to active “bets”, so it is less resource intensive to select, monitor, and terminate managers
- *No timing (managers) risk* - cannot make ill-timed move from one underperforming active manager to another
- *Little manager selection skill required* - gaining market exposure is relatively straightforward
- *Most Indexes are a zero sum game*

Figure 1. Impact of costs on zero-sum game



Source: Vanguard.

At every moment, the dollar-weighted positive excess performance equals the inverse of the dollar-weighted underperformance, such that the sum of the two equals the market return. However, in reality, investors are exposed to costs such as commissions, management fees, bid-ask spreads, administrative costs, market impact, and, where applicable, taxes—all of which combine to reduce investors' realized returns over time.

Average dollar-weighted expense ratios as of
December 31, 2013

	Investment type	Actively managed funds	Index funds	ETFs
U.S. stocks	Large-cap	0.80	0.11	0.14
	Mid-cap	0.97	0.18	0.25
	Small-cap	1.04	0.19	0.23
U.S. equity sectors	GICS sectors	0.94	0.44	0.37
	Real estate	0.92	0.13	0.20
International stocks	Developed market	0.91	0.17	0.29
	Emerging market	1.16	0.21	0.42
U.S. bonds	Corporate	0.58	0.11	0.13
	Government	0.47	0.12	0.15

Note: GICS = Global Industry Classification System.

Sources: Vanguard calculations, using data from Morningstar, Inc. Discrepancies are due to rounding.

ANALYSIS

Manager Excess Returns Summary

Long-Term 3-Year Rolling Average (Net of Fees)

January 2001 – December 2014

US EQUITY			
	25 th Percentile	Median	75 th Percentile
 US Small Cap Value Equity	3.61%	1.21%	-1.22%
US All Cap Core Equity	2.98%	1.05%	-0.93%
US Small Cap Core Equity	2.89%	0.70%	-1.30%
US Large Cap Enhanced Equity	0.99%	0.30%	-0.27%
US Large Cap Value Equity	1.98%	0.17%	-1.51%
US Small Cap Growth Equity	2.80%	0.19%	-2.61%
 US Large Cap Core Equity	1.54%	0.00%	-1.53%
US Large Cap Growth Equity	1.96%	-0.04%	-1.84%
US Mid Cap Growth Equity	1.86%	-0.32%	-2.41%
US Mid Cap Value Equity	1.39%	-0.54%	-2.35%
US Mid Cap Core Equity	1.12%	-0.67%	-2.56%

Based on data as of Dec. 31, 2014, 86.44% of large-cap fund managers underperformed the benchmark over a one-year period. This figure is equally unfavorable when viewed over longer-term investment horizons. Over 5- and 10-year periods, respectively, 88.65% and 82.07% of large-cap managers failed to deliver incremental returns over the benchmark.

(Source: S&P Dow Jones Indices and RVK)

Manager Excess Returns Summary

Long-Term 3-Year Rolling Average (Net of Fees)

January 2001 – December 2014

INTERNATIONAL EQUITY			
	25 th Percentile	Median	75 th Percentile
Intl Small Cap Equity*	4.12%	1.74%	-0.99%
Intl Emerging Markets Equity	3.13%	0.73%	-1.44%
Intl Large Cap Equity (ACW xUS)	2.14%	0.03%	-1.88%
Intl Large Cap Core Equity	1.16%	-0.27%	-1.62%

*Jan 2001 population for Intl Small Cap Equity – 21.

Manager Excess Returns Summary

Long-Term 3-Year Rolling Average (Net of Fees)

January 2001 – December 2014

FIXED INCOME			
	25 th Percentile	Median	75 th Percentile
Core Plus Fixed Income	1.76%	0.89%	0.03%
Core Fixed Income	0.77%	0.26%	-0.33%
High Yield Fixed Income	0.67%	-0.39%	-1.46%



FIXED INCOME

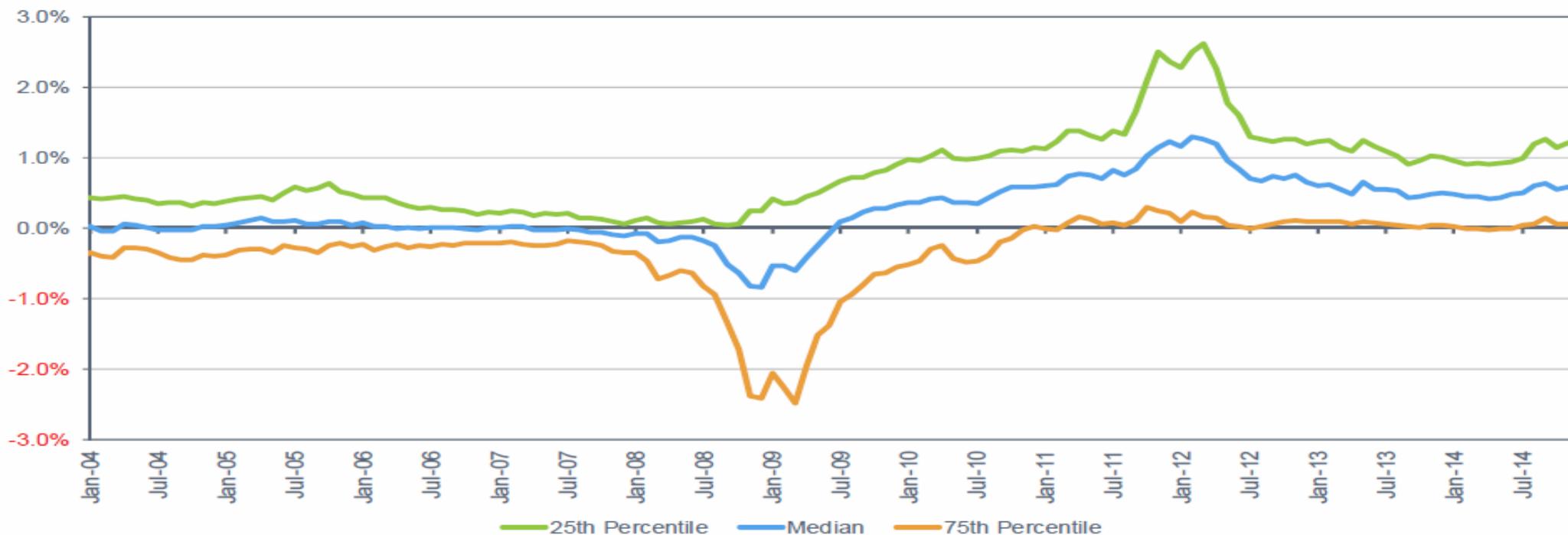
Core Fixed Income

Manager Excess Returns – Rolling 3-Year Periods (beginning January 2001)

Excess Returns are performed relative to the **Barclays Aggregate Bond Index**

Assumed Annual Management Fee: 21.5(bp)

Peak Population: 290

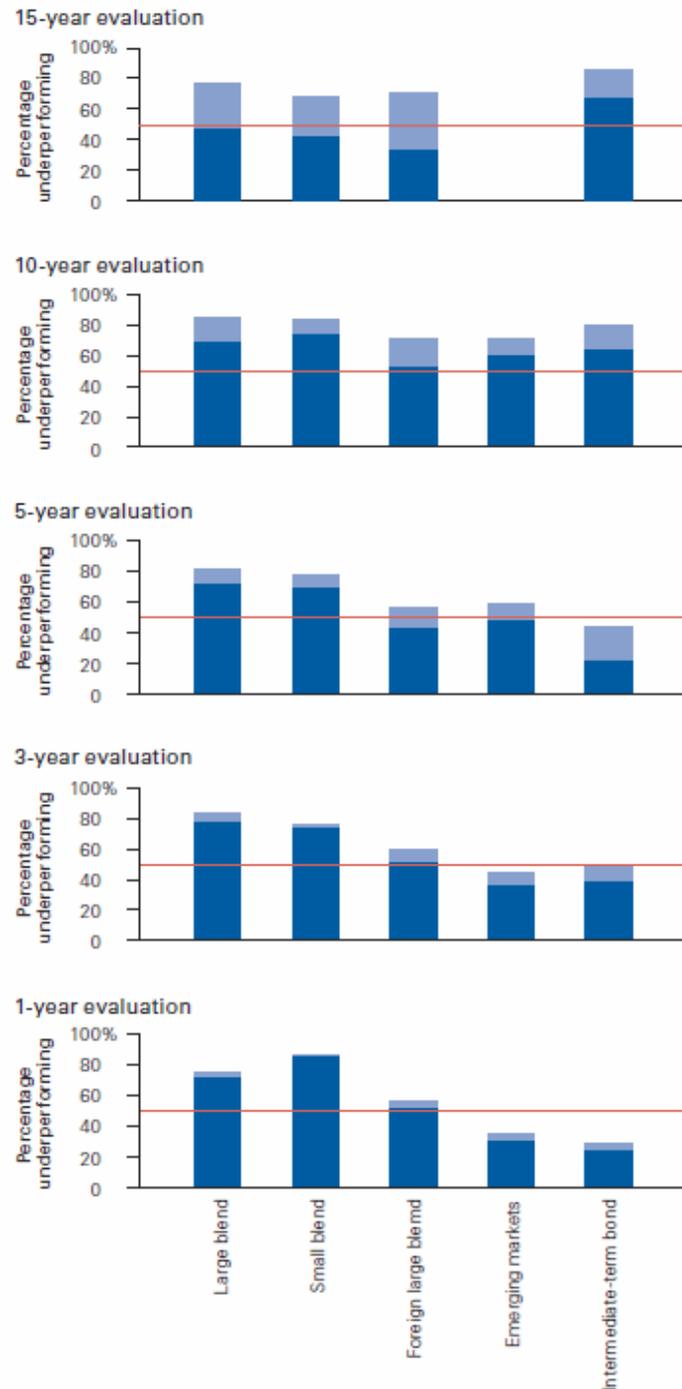


The Persistence Scorecard

- Relatively few funds consistently stay at the top
- Out of 678 domestic equity funds that were in the top quartile as of September 2013, only 4.28% managed to stay in the top quartile by the end of September 2015
- Furthermore, 1.19% of the large-cap funds, 6.32% of the mid-cap funds, and 5.41% of the small-cap funds remained in the top quartile

Percentage of active funds **underperforming** the average return of low-cost index funds

■ Survivors only
 ■ Survivors plus "dead" funds



Sources: Vanguard and Morningstar, Inc.

Active vs. Passive Summary

- For some asset classes, investable indices do not exist or are imperfect
- Investors should consider:
 - Index manager fees
 - Trading costs
 - Opportunity costs
- Benefits of active management tend to hinge on the investor's ability to select better than average managers
- Particularly efficient markets provide less opportunity for active managers to add value above the index.