COMMENCEMENT
FINANCIAL PLANNING LLC

The Mutual Fund Landscape

2014 Report

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This report documents survivorship and performance of US mutual funds, and shows the negative impact of high fees and turnover on returns.

The data reveals that few mutual funds have delivered benchmark-beating returns and quantifies an investor's challenge to identify outperforming managers in advance.

Findings
- Most mutual funds underperformed their benchmarks.
- Strong track records failed to persist.
- High costs and excessive turnover may have contributed to underperformance.

Lessons
- In aggregate, mutual funds have rewarded investors with long-term capital appreciation.
- The market does a good job of pricing securities, making it difficult for managers to outperform by trying to outguess other participants.
- Managers in search of mispricing face high cost barriers as they try to beat the market.
- Successful fund investing involves more than picking past winners.
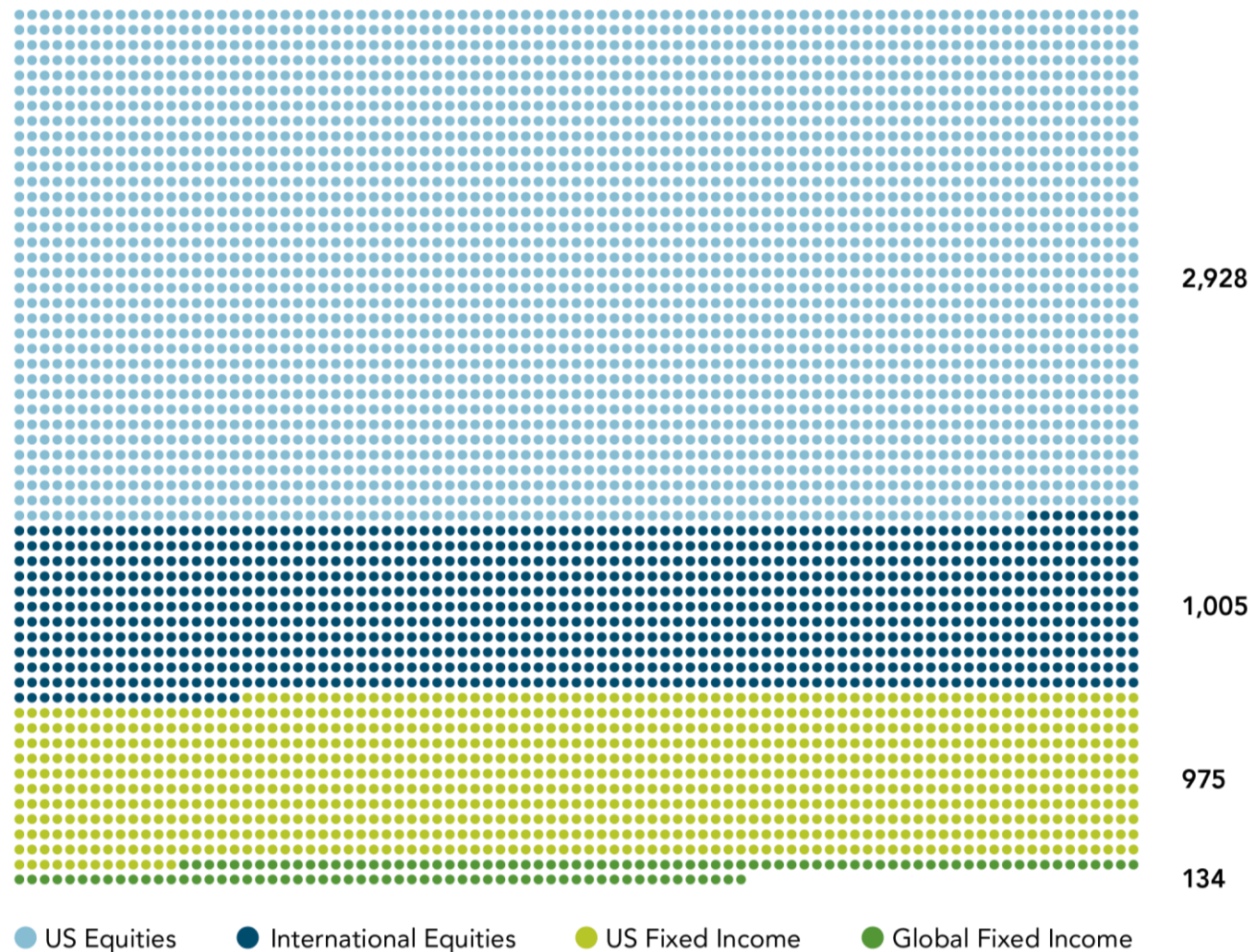- Consider a fund's market philosophy, investment objectives, strategy, trading costs, and other factors.

Overview:

The US Mutual Fund Industry

Number of equity and fixed income funds, 2013

**5,042
US Mutual
Funds**

**$9.1 trillion
in assets**

2,928

1,005

975

134

US Equities · International Equities · US Fixed Income · Global Fixed Income

In US dollars. Number of funds as of December 2013. International equities and global fixed income include non-US developed and emerging markets funds in their respective categories. **See Data appendix for more information.** US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.
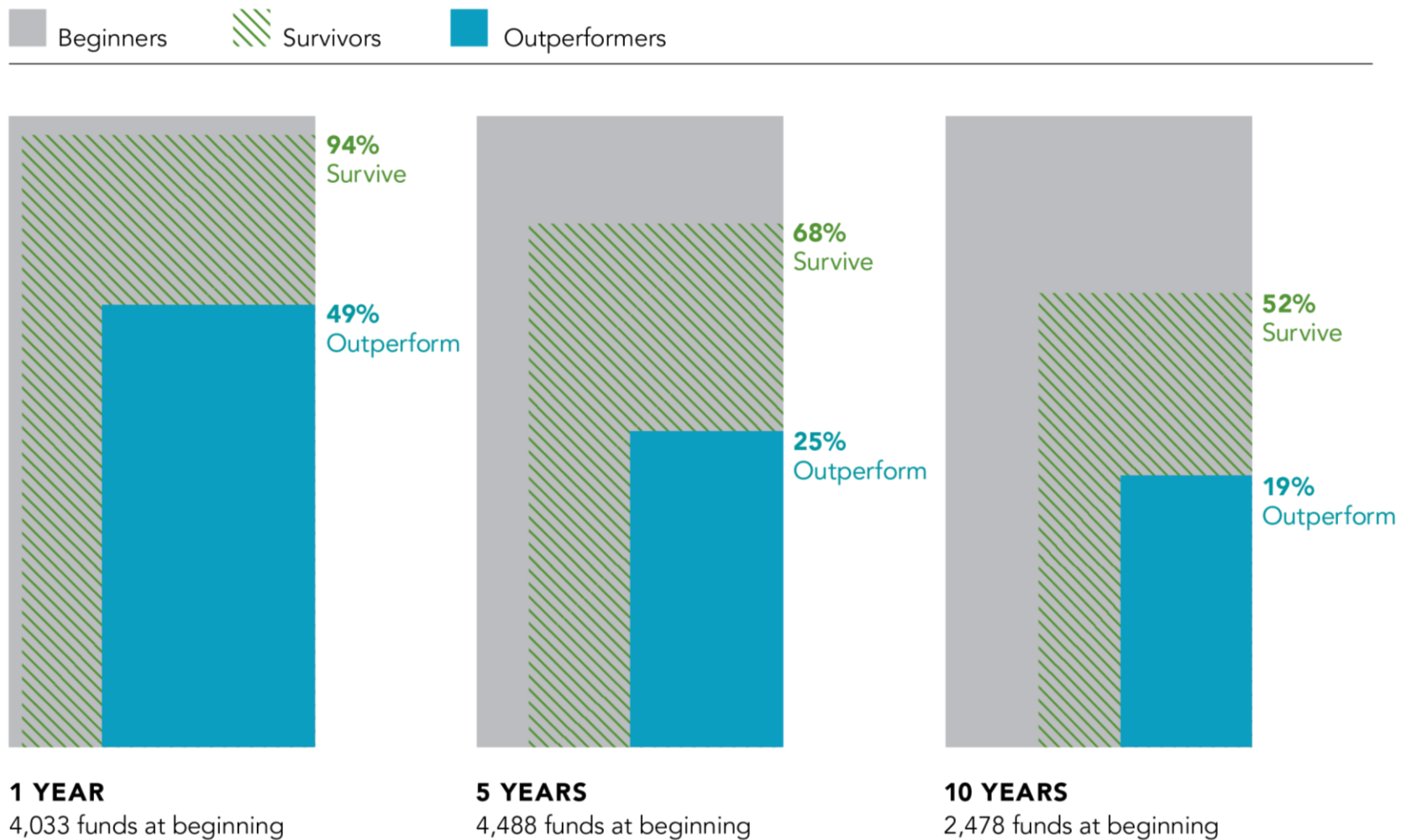
Growth of Wealth: US Mutual Funds
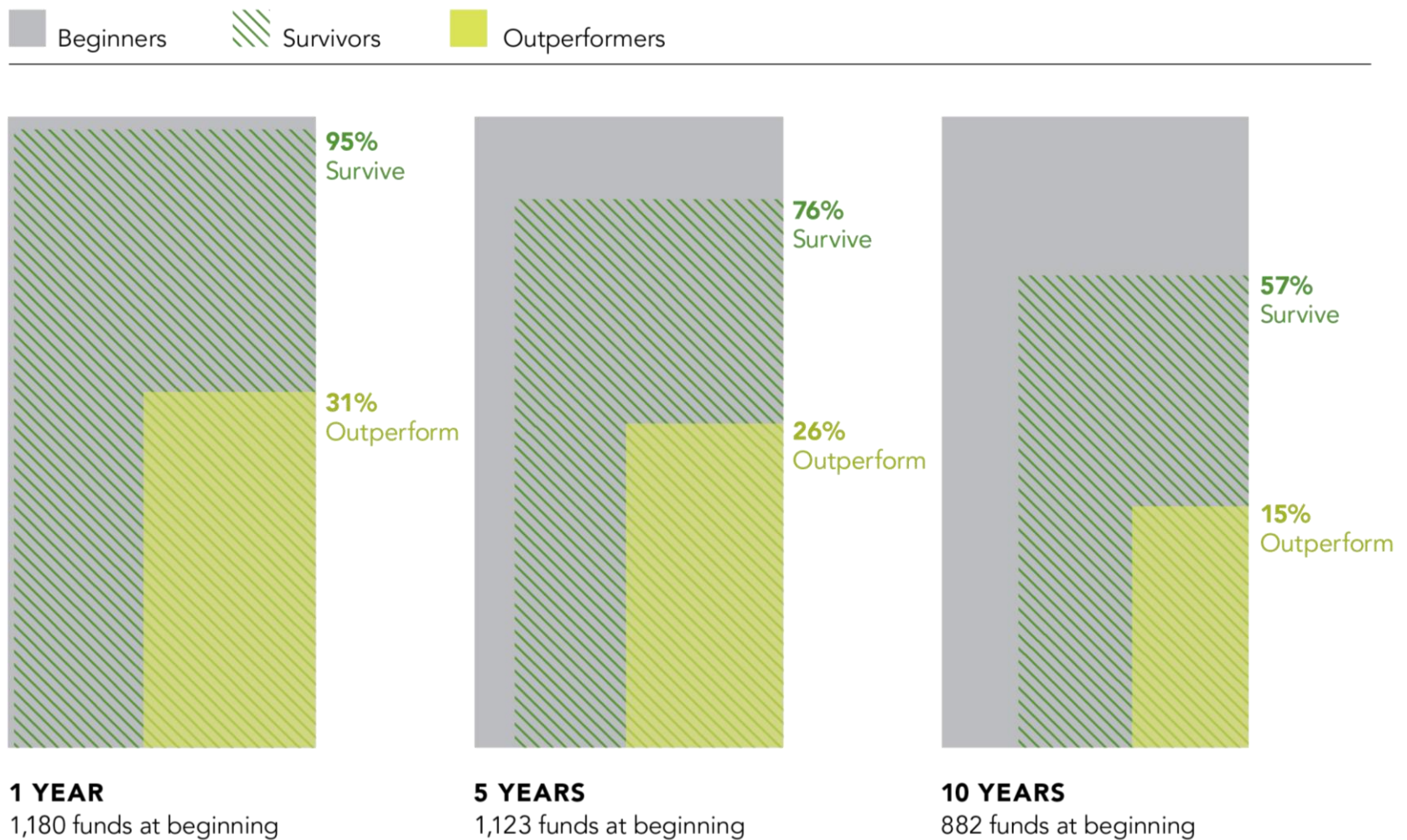
$1 invested by fund category, 2004–2013

$2.10 International Equities

$2.09 US Equities

$1.71 Global Fixed Income

$1.61 US Fixed Income

Survivorship and Outperformance

Performance periods ending December 31, 2013—Equity Funds

Beginners | Survivors | Outperformers

94% Survive

49% Outperform

68% Survive

25% Outperform

52% Survive

19% Outperform

1 YEAR
4,033 funds at beginning

5 YEARS
4,488 funds at beginning

10 YEARS
2,478 funds at beginning

Beginning sample includes funds as of the beginning of the one-, five-, and 10-year periods ending in 2013. The number of beginners is indicated below the period label. Survivors are funds that were still in existence as of December 2013. Non-survivors include funds that were either liquidated or merged. Outperformers (winners) are funds that survived and beat their respective benchmarks over the period. **Past performance is no guarantee of future results. See Data appendix for more information.** US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.
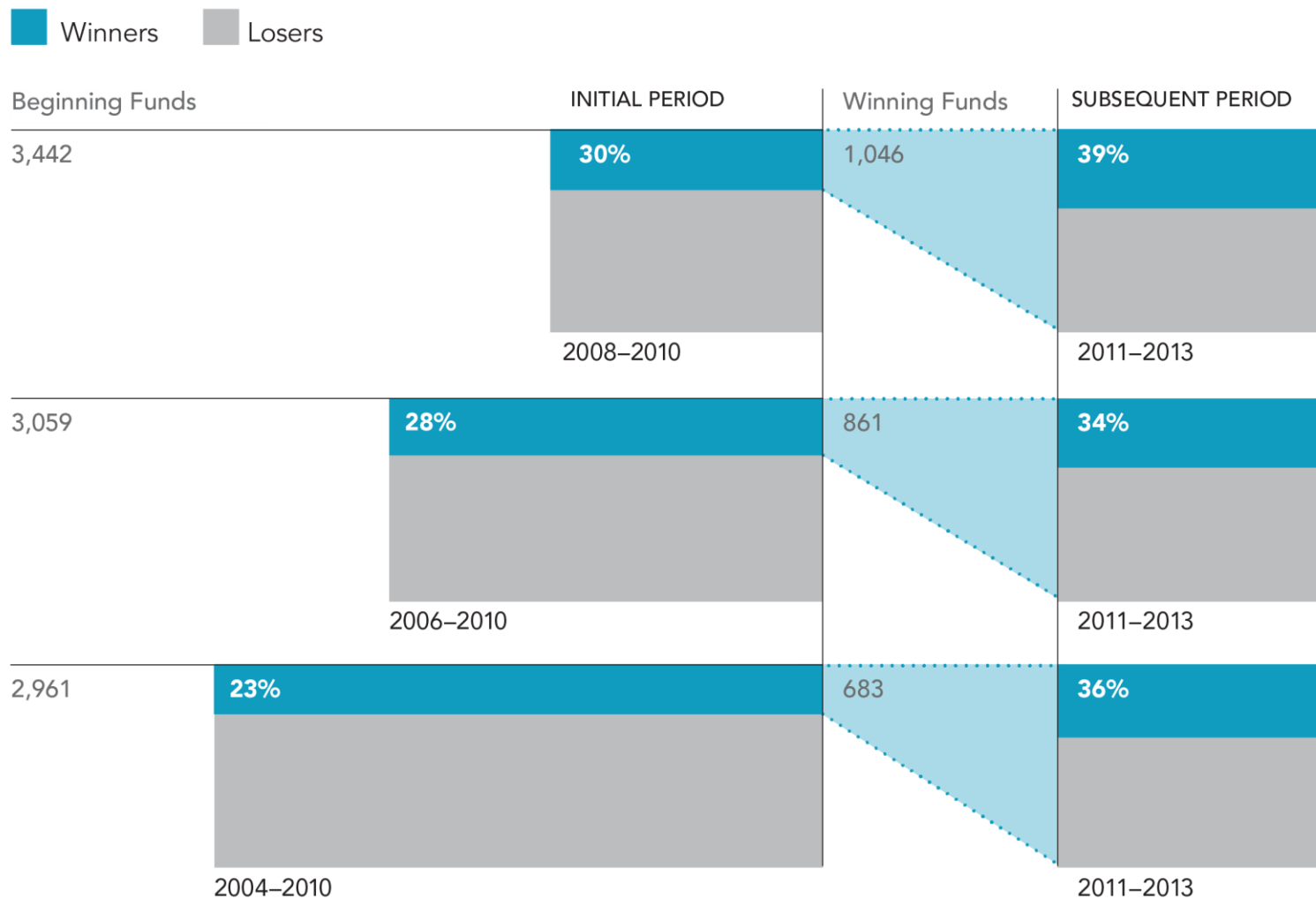
Survivorship and Outperformance

Performance periods ending December 31, 2013—Fixed Income Funds

Legend: Beginners | Survivors | Outperformers

1 YEAR — 1,180 funds at beginning — 95% Survive, 31% Outperform

5 YEARS — 1,123 funds at beginning — 76% Survive, 26% Outperform

10 YEARS — 882 funds at beginning — 57% Survive, 15% Outperform

Do Winners Keep Winning?

Past performance vs. subsequent performance—Equity Funds

Winners **Losers**

Beginning Funds	INITIAL PERIOD	Winning Funds	SUBSEQUENT PERIOD
3,442	30% / 2008–2010	1,046	39% / 2011–2013
3,059	28% / 2006–2010	861	34% / 2011–2013
2,961	23% / 2004–2010	683	36% / 2011–2013

The sample includes funds at the beginning of the three-, five-, and seven-year periods, ending in December 2010. The graph shows the proportion of funds that outperformed and underperformed their respective benchmarks (i.e., winners and losers) during the initial periods. Winning funds were re-evaluated in the subsequent period from 2011 to 2013, with the graph showing the proportion of outperformance and underperformance among past winners. (Fund counts and percentages may not correspond due to rounding.) **Past performance is no guarantee of future results. See Data appendix for more information.** US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.
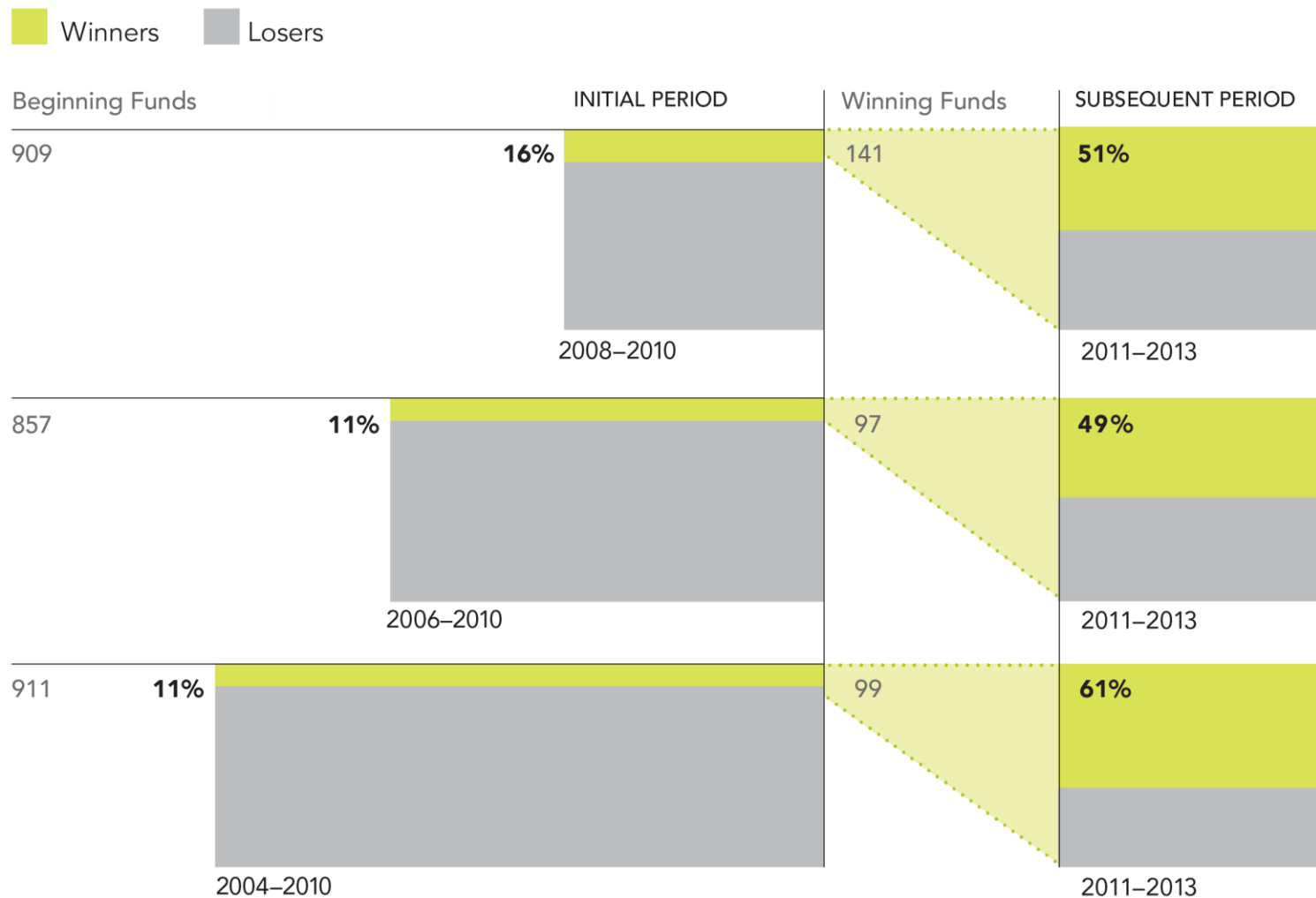
Do Winners Keep Winning?

Past performance vs. subsequent performance—Fixed Income Funds

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High Costs Make Outperformance Difficult

Winners and losers based on expense ratios (%)—Equity Funds

■ Winners   ■ Losers

	1 Year				5 Years				10 Years			
Winners	50	50	50	48	27	25	28	20	25	22	19	9
Losers	50	50	50	52	73	75	72	80	75	78	81	91
Average Expense Ratio (%)	0.47	0.96	1.21	1.66	0.54	1.02	1.28	1.77	0.65	1.13	1.41	1.97
	Low	Med. Low	Med. High	High	Low	Med. Low	Med. High	High	Low	Med. Low	Med. High	High

The sample includes funds at the beginning of the one-, five-, and 10-year periods ending in 2013. Funds are ranked by quartiles based on average expense ratio over the sample period, and performance is compared to their respective benchmarks. The chart shows the proportion of winner and loser funds within each expense ratio quartile. **Past performance is no guarantee of future results. See Data appendix for more information.** US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.

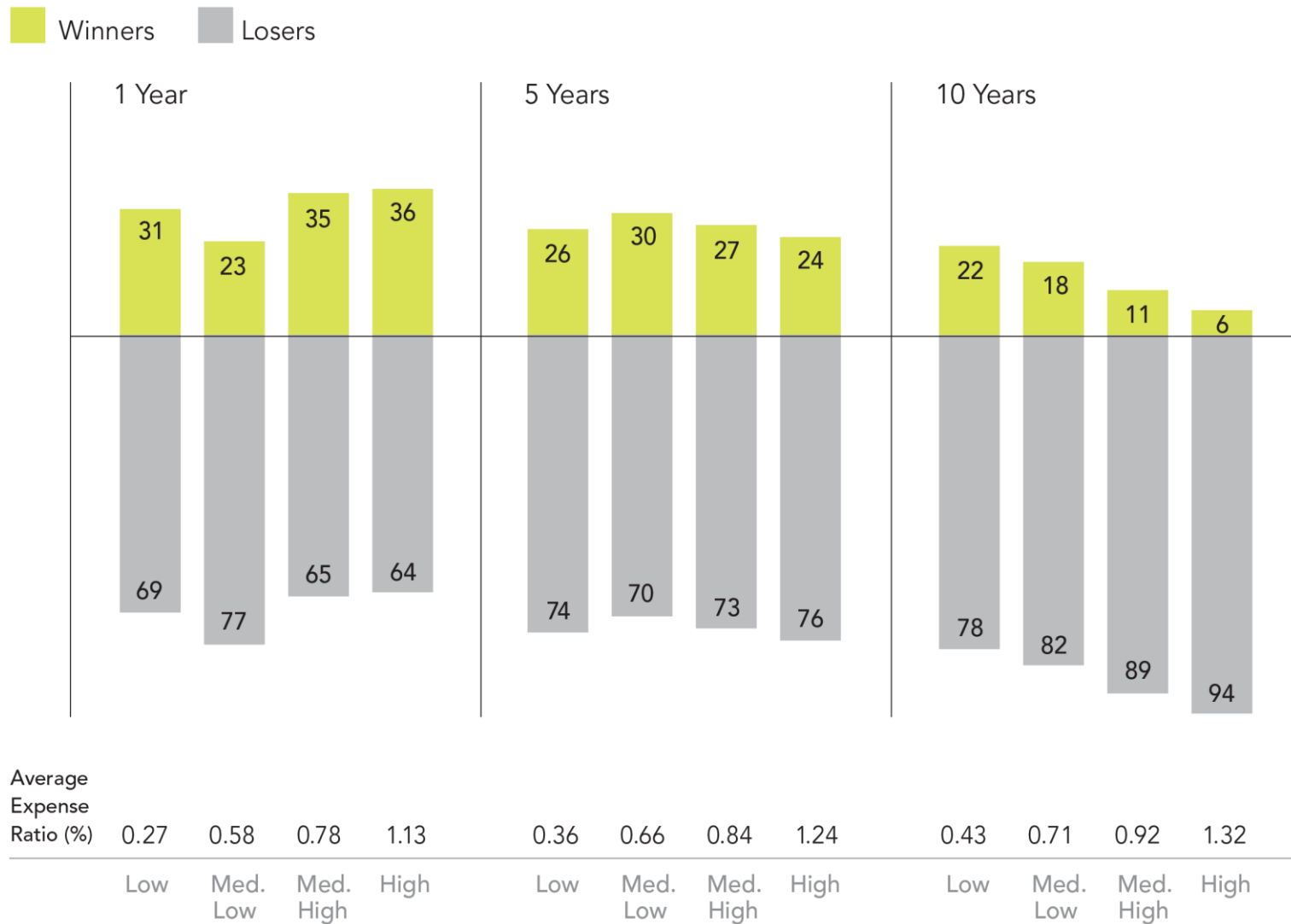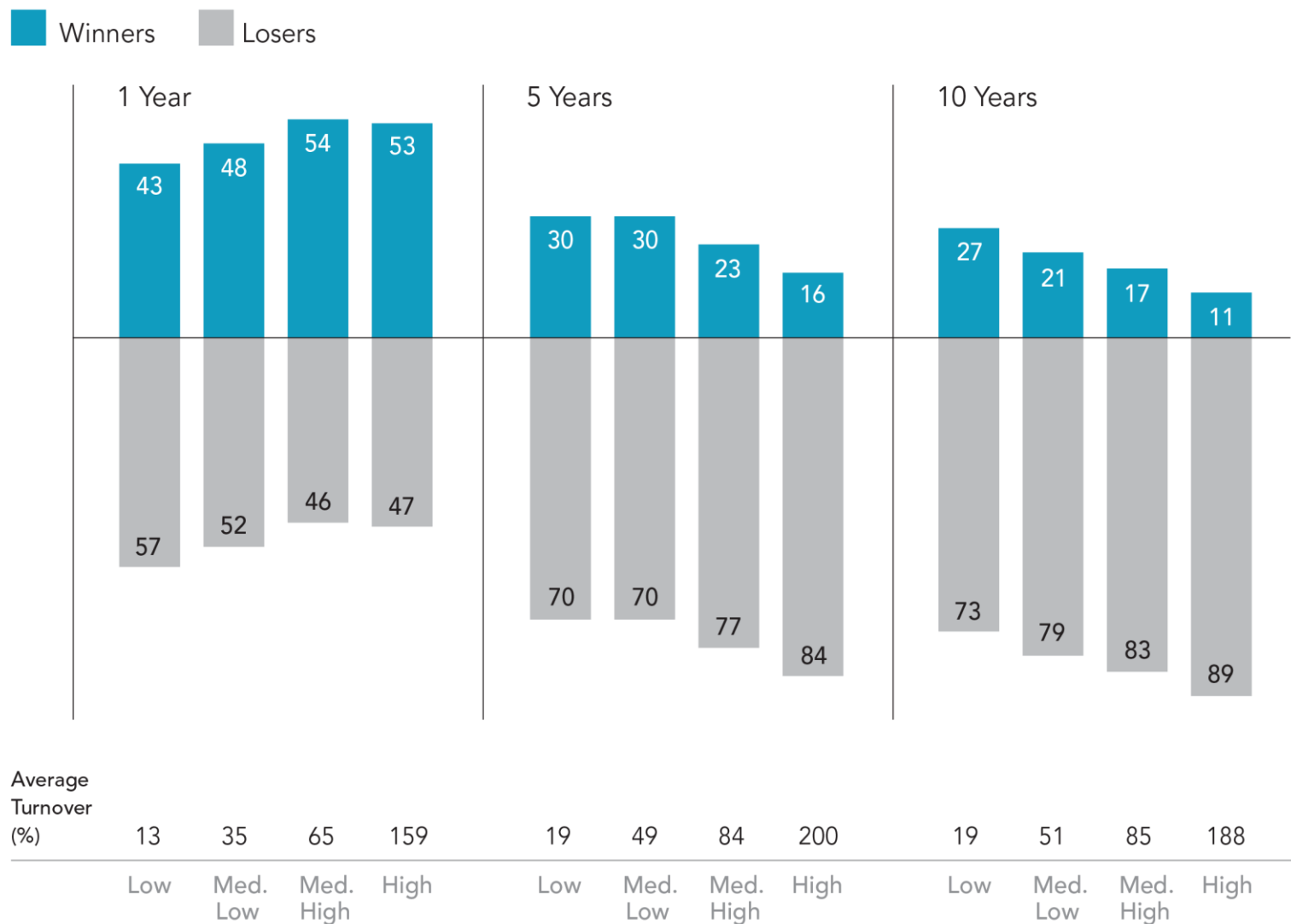# High Costs Make Outperformance Difficult

Winners and losers based on expense ratios (%)—Fixed Income Funds

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High Trading Costs Make Outperformance Difficult

Winners and losers based on turnover (%)—Equity Funds

■ Winners   ▪ Losers

1 Year

	Low	Med. Low	Med. High	High
Winners	43	48	54	53
Losers	57	52	46	47

5 Years

	Low	Med. Low	Med. High	High
Winners	30	30	23	16
Losers	70	70	77	84

10 Years

	Low	Med. Low	Med. High	High
Winners	27	21	17	11
Losers	73	79	83	89

Average Turnover (%)	13	35	65	159		19	49	84	200		19	51	85	188
	Low	Med. Low	Med. High	High		Low	Med. Low	Med. High	High		Low	Med. Low	Med. High	High

The sample includes equity funds at the beginning of the one-, five, and 10-year periods ending in 2013. Funds are ranked by quartiles based on average turnover during the sample period, and performance is compared to their respective benchmarks. The chart shows the proportion of winner and loser funds within each turnover quartile. Fixed income funds are excluded from the analysis because turnover is not a good proxy for fixed income trading costs. **Past performance is no guarantee of future results. See Data appendix for more information.** US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.

Report Summary
The mutual fund landscape

Findings

- Most mutual funds underperformed their benchmarks.

- Strong track records failed to persist.

- High costs and excessive turnover may have contributed to underperformance.

Lessons

- In aggregate, mutual funds have rewarded investors with long-term capital appreciation.

- The market does a good job of pricing securities, making it difficult for managers to outperform by trying to outguess other participants.

- Managers in search of mispricing face high cost barriers as they try to beat the market.

- Successful fund investing involves more than picking past winners.

- Consider a fund's market philosophy, investment objectives, strategy, trading costs, and other factors.

Data Appendix

US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.

Certain types of equity and fixed income funds were excluded from the performance study. For equities, sector funds and funds with a narrow investment focus, such as real estate and gold, were excluded. Money market funds, municipal bond funds, and asset-backed security funds were excluded from fixed income.

Funds are identified using Lipper fund classification codes and are matched to their respective benchmarks at the beginning of the sample periods. Winner funds are those whose cumulative return over the period exceeded that of their respective benchmark. Loser funds are funds that did not survive the period or whose cumulative return did not exceed their respective benchmark.

Expense ratio ranges: The ranges of expense ratios for equity funds over the one-, five-, and 10-year periods are 0.02% to 4.93%, 0.01% to 4.74%, and 0.02% to 4.44%, respectively. For fixed income funds, ranges over the same periods are 0.02% to 3.27%, 0.01% to 2.53%, and 0.05% to 2.43%, respectively.

Portfolio turnover ranges: Ranges for equity fund turnover over the one-, five-, and 10-year periods are 1% to 1,315%, 1% to 3,452%, and 1% to 3,552%, respectively.

Benchmark data provided by Barclays, MSCI, and Russell. Barclays data provided by Barclays Bank PLC. MSCI data © MSCI 2014, all rights reserved. Russell data © Russell Investment Group 1995–2014, all rights reserved.

Benchmark indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio.

Mutual fund investment values will fluctuate, and shares, when redeemed, may be worth more or less than original cost. Diversification neither assures a profit nor guarantees against a loss in a declining market. There is no guarantee investment strategies will be successful.

Past performance is no guarantee of future results.

Mutual Fund 10-Year Survivorship and Outperformance
Performance Periods Ending December 31, 2013

Fund Category	Benchmark Index	Survive (%)	Outperform (%)
US Equities			
US All Cap Core	Russell 3000 Index	53	18
US All Cap Value	Russell 3000 Value Index	60	25
US All Cap Growth	Russell 3000 Growth Index	50	23
US Large Cap Core	Russell 1000 Index	43	10
US Large Cap Value	Russell 1000 Value Index	48	16
US Large Cap Growth	Russell 1000 Growth Index	40	12
US Small Cap Core	Russell 2000 Index	59	31
US Small Cap Value	Russell 2000 Value Index	66	45
US Small Cap Growth	Russell 2000 Growth Index	49	24
US Fixed Income			
US Short Duration	Barclays Capital US Government/Credit Index 1-3 Years	59	12
US Market Duration	Barclays Capital US Government/Credit Bond Index	51	17
US High Yield	Barclays Capital US Corporate High Yield Index	64	3
Inflation-Protected	Barclays Capital US TIPS Index	78	17

Sample includes funds available as of December 31, 2003. Funds are categorized according to Lipper fund classification codes and are matched to their respective benchmarks at the beginning of the period. Survivors are funds that were still in existence as of December 2013. Non-survivors include funds that were either liquidated or merged. Outperforming funds are those whose cumulative return over the period exceeded that of their respective benchmark. All fund returns are net of fees and expenses. **Past performance is no guarantee of future results.** Benchmark data from Russell, Barclays, and MSCI. US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.

Mutual Fund 10-Year Survivorship and Outperformance

Performance Periods Ending December 31, 2013

Fund Category	Benchmark Index	Survive (%)	Outperform (%)
International Equities			
Non-US Developed Large Cap Core	MSCI AC World ex USA (net div)	62	13
Non-US Developed Large Cap Value	MSCI AC World ex USA Value (net div)	83	26
Non-US Developed Large Cap Growth	MSCI AC World ex USA Growth (net div)	65	35
Non-US Developed Small Cap Core	MSCI AC World ex USA Small Cap Index (net div)	72	17
Non-US Developed Small Cap Value	MSCI AC World ex USA Small Cap Value Index (net div)	67	33
Non-US Developed Small Cap Growth	MSCI AC World ex USA Small Cap Growth Index (net div)	83	52
Emerging Markets	MSCI Emerging Markets Index (net div)	76	24
Global Fixed Income			
Global Fixed Income	Barclays Global Aggregate Bond Index (unhedged)	63	35