



Callan 1998 - 2017

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
S&P 500 Growth	MSCI Emerging Markets	Russell 2000 Value	Russell 2000 Value	Bloomberg Barclays Agg	MSCI Emerging Markets	Bloomberg Barclays Agg	MSCI Emerging Markets	Russell 2000 Growth	Bloomberg Barclays Agg	MSCI Emerging Markets	Russell 2000 Growth	S&P 500 Growth	S&P 500 Growth	Russell 2000 Value	MSCI Emerging Markets				
42.16%	66.84%	22.63%	14.02%	10.26%	55.82%	25.55%	34.00%	32.17%	39.38%	5.24%	78.51%	29.09%	7.84%	18.23%	43.30%	14.89%	5.52%	31.74%	37.28%
S&P 500 Growth	Russell 2000 Growth	Bloomberg Barclays Agg	Bloomberg Barclays Agg	Bloomberg Barclays High Yield	Russell 2000 Growth	Russell 2000 Value	MSCI World ex USA	MSCI World ex USA	MSCI World ex USA	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	Russell 2000	Bloomberg Barclays High Yield	Russell 2000 Value	Russell 2000	S&P 500	S&P 500	Russell 2000	S&P 500 Growth
28.58%	43.09%	11.63%	8.43%	-1.37%	48.54%	22.25%	14.47%	25.71%	12.44%	-26.16%	58.21%	26.85%	4.98%	18.05%	38.82%	13.69%	1.38%	21.31%	27.44%
MSCI World ex USA	S&P 500 Growth	S&P 500 Value	Bloomberg Barclays High Yield	MSCI Emerging Markets	Russell 2000	MSCI World ex USA	S&P 500 Value	Russell 2000 Value	S&P 500 Growth	Russell 2000 Value	Russell 2000 Growth	Russell 2000 Value	S&P 500 Growth	S&P 500 Value	Russell 2000 Value	S&P 500 Value	Bloomberg Barclays Agg	S&P 500 Value	MSCI World ex USA
18.77%	28.24%	6.08%	5.28%	-6.16%	47.25%	20.38%	5.82%	23.48%	9.13%	-28.92%	34.47%	24.50%	4.65%	17.68%	34.52%	12.36%	0.55%	17.40%	24.21%
S&P 500 Value	MSCI World ex USA	Russell 2000	Russell 2000	Russell 2000 Value	Russell 2000 Value	Russell 2000	S&P 500	S&P 500 Value	Russell 2000 Growth	Russell 2000	MSCI World ex USA	MSCI Emerging Markets	S&P 500	MSCI World ex USA	S&P 500 Growth	Bloomberg Barclays Agg	Russell 2000 Growth	Bloomberg Barclays High Yield	Russell 2000 Growth
14.68%	27.92%	-3.02%	2.49%	-11.43%	46.03%	18.33%	4.91%	20.81%	7.05%	-33.79%	33.67%	18.88%	2.11%	16.41%	32.75%	5.97%	-3.04%	17.13%	22.17%
Bloomberg Barclays Agg	Russell 2000	Bloomberg Barclays High Yield	MSCI Emerging Markets	MSCI World ex USA	MSCI World ex USA	MSCI World ex USA	Russell 2000 Value	Russell 2000	Bloomberg Barclays Agg	S&P 500 Growth	S&P 500 Growth	Bloomberg Barclays High Yield	S&P 500 Value	Russell 2000	S&P 500	Russell 2000 Growth	MSCI World ex USA	S&P 500	S&P 500
8.67%	21.26%	-5.86%	-2.61%	-15.80%	39.42%	15.71%	4.71%	18.37%	6.97%	-34.92%	31.57%	15.12%	-0.48%	16.35%	32.39%	5.60%	-3.04%	11.96%	21.83%
Bloomberg Barclays High Yield	S&P 500	S&P 500	Russell 2000 Growth	Russell 2000	Russell 2000 Value	Russell 2000 Growth	Russell 2000	S&P 500	S&P 500	S&P 500	Russell 2000	S&P 500 Value	Russell 2000	S&P 500	S&P 500	Russell 2000	Russell 2000 Value	Russell 2000	S&P 500 Value
1.87%	21.04%	-9.11%	-9.23%	-20.48%	31.79%	14.31%	4.55%	15.79%	5.49%	-37.00%	27.17%	15.10%	-2.91%	16.00%	31.99%	4.89%	-3.13%	11.32%	15.36%
Russell 2000 Growth	S&P 500 Value	MSCI World ex USA	S&P 500 Value	S&P 500 Value	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	Russell 2000 Growth	Russell 2000 Growth	S&P 500 Value	Russell 2000 Growth	S&P 500	S&P 500	Russell 2000	Russell 2000	Bloomberg Barclays High Yield	MSCI World ex USA	Russell 2000 Value	Russell 2000	MSCI Emerging Markets
1.23%	12.73%	-13.37%	-11.71%	-20.85%	28.97%	11.13%	4.15%	13.35%	1.99%	-38.54%	26.47%	15.06%	-4.18%	15.81%	21.02%	4.22%	-4.41%	11.19%	14.65%
Russell 2000	Bloomberg Barclays High Yield	S&P 500 Growth	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500 Growth	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	S&P 500 Value	S&P 500 Value	S&P 500 Growth	Russell 2000 Value	S&P 500 Growth	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	S&P 500 Growth	Russell 2000 Value
-2.55%	2.39%	-22.08%	-11.89%	-22.10%	28.68%	10.88%	4.00%	11.85%	1.87%	-39.22%	21.17%	15.05%	-5.50%	14.61%	7.44%	2.45%	-4.47%	6.89%	7.84%
Russell 2000 Value	Bloomberg Barclays Agg	Russell 2000 Growth	S&P 500 Growth	S&P 500 Growth	S&P 500 Growth	S&P 500 Growth	Bloomberg Barclays High Yield	S&P 500 Growth	Russell 2000	MSCI World ex USA	Russell 2000 Value	MSCI World ex USA	MSCI World ex USA	Russell 2000 Growth	Bloomberg Barclays Agg	MSCI Emerging Markets	Russell 2000 Value	MSCI World ex USA	Bloomberg Barclays High Yield
-6.45%	-0.83%	-22.43%	-12.73%	-23.59%	25.66%	6.13%	2.74%	11.01%	-1.57%	-43.56%	20.58%	8.95%	-12.21%	14.59%	-2.02%	-2.19%	-7.47%	2.75%	7.50%
MSCI Emerging Markets	Russell 2000 Value	MSCI Emerging Markets	MSCI World ex USA	Russell 2000 Growth	Bloomberg Barclays Agg	Bloomberg Barclays Agg	Bloomberg Barclays Agg	Bloomberg Barclays Agg	Russell 2000 Value	MSCI Emerging Markets	Bloomberg Barclays Agg	Bloomberg Barclays Agg	MSCI Emerging Markets	Bloomberg Barclays Agg	MSCI Emerging Markets	MSCI World ex USA	MSCI Emerging Markets	Bloomberg Barclays Agg	Bloomberg Barclays Agg
-25.34%	-1.49%	-30.71%	-21.40%	-30.26%	4.10%	4.34%	2.43%	4.33%	-9.78%	-53.33%	5.93%	6.54%	-18.42%	4.21%	-2.60%	-4.32%	-14.92%	2.65%	3.54%

Each year, Callan Associates updates its Periodic Table of Investment Returns. The table displays the annual performance “standings” (from highest to lowest) of ten popular stock and bond asset classes. The chart reveals the lack of any pattern, or the randomness, in the relative performance of the asset classes from one year to the next.

If you invested \$10,000 in January 1999 into the best performing asset class of 1998, domestic large-cap growth stocks, and each January thereafter invested the balance in the previous year's best performing asset class, your account would have grown to \$21,747 by yearend 2017. However, had you invested in the worst performing asset class of 1998, emerging market stocks, and each January thereafter invested the balance in the previous year's worst performing asset class, your 2017 yearend balance would have been \$54,864.

This is a good example of reversion to the mean which can be defined as the inevitability that, regardless of their present level, asset class prices eventually gravitate back to their long-term average growth rate. Reversion to the mean becomes apparent over the long-term but it's impossible to predict when, or how quickly mean reversion will occur. Wise investors take advantage of mean reversion by keeping a long-term focus and periodically rebalancing their portfolio.

A recently published research paper: "The Folly of Hiring Winners and Firing Losers" notes how mean reversion trips up even the most knowledgeable institutional investors. Investment committees of pension plans, endowments and 401(k)s typically fire managers and replace funds after two to three years of underperformance. Typically, they are replaced with managers and funds that have recently outperformed. This is an intuitive and seemingly sensible strategy. But its fatal flaw lies in the fact that it's impossible for investment committees to know if recent performance was the result of skill or luck - setting the stage for disappointing future performance and another firing and hiring cycle.

The authors studied the performance of 3,331 mutual funds for the period January 1990 - December 2016 to determine if past performance was a harbinger of future performance or indicative of manager skill. The authors noted -

- Past is not prologue, past winners are often future losers, and vice versa.

- Persistent manager skill is rare. High fees, high trading costs and sloppy implementation are "all less rare than they should be" and lead to poor performance in many funds.
- Most funds exhibit mean reverting performance over time.

As the Callan chart shows, if an asset class has outperformed its long-term rate of return for a few years, it tends to underperform in subsequent years. If an asset class has underperformed its long-term rate of return for a few years it is likely to experience above average returns in upcoming years. As the authors noted in their summary -

*"The counterintuitive policy of firing recent winners and hiring recent losers, relative to the market, is demonstrably a better way to invest than the conventional performance chasing manager selection rules that most investors rely on today."*

## Insights From Warren Buffett

Here are some highlights from Warren Buffett's annual letter to Berkshire Hathaway shareholders -

Buffett revealed the results of the bet he made in December 2007 that *"Over a ten-year period commencing on January 1, 2008, and ending on December 31, 2017, the S&P 500 will outperform a portfolio of funds of hedge funds, when performance is measured on a basis net of fees, costs and expenses."* He believed that no investment professional could select a group of at least five funds that invest in multiple hedge funds (called a fund-of-funds) that would outperform the Vanguard S&P 500 Index Fund over the subsequent decade.

Ted Seides of Protégé Partners, which managed a fund-of-funds, took the bet. The five funds-of-funds that Seides selected invested in more than 200 hedge funds, a level of diversification that guaranteed the overall performance of the selected funds would not be distorted by the results of just a few hedge funds. Each manager of the underlying hedge funds had a financial incentive to do his or her best and the managers of the five funds-of-funds were similarly incentivized to select the best hedge funds for their portfolios. But a fund-of-funds adds another layer of fees to those charged by the hedge funds in its portfolio and the winner would be determined by performance, net of fees. Buffett was confident that the high fees and expenses of the hedge funds, averaging 2.5% annually, would leave their investors - in aggregate - worse off than the "dumb money" invested in an unmanaged index fund -

*"My conviction that my pick - a virtually cost-free investment in an unmanaged S&P 500 index fund - would, over time, deliver better results than those achieved by most investment professionals, however well-regarded and incentivized those "helpers" may be... This assemblage was an elite crew, loaded with brains, adrenaline and confidence. The managers of the five funds-of-funds possessed a further advantage: they could - and did - rearrange their portfolios of hedge funds during the ten years, investing with new "stars" while exiting their positions and hedge funds whose managers had lost their touch."*

The five funds-of-funds got off to a big lead in 2008 when the S&P 500 Index declined 37% and was outperformed by all five of Seides' funds. However, in every one of the following nine years, the combined performance of the five funds trailed the Vanguard fund. Over the ten years, the average annualized return of the five funds-of-funds ranged from a high of +6.5% to a loss of 0.3%. The combined average annualized return of all five funds was 2.8% versus the 8.5% average annualized return of the Vanguard S&P 500 Index Fund.

My Lazy Golfer portfolio contains five Vanguard index funds -- 40% in the Total Stock Market Index Fund (VTSMX), 20% in the Total International Stock Index Fund (VGTSX), 20% in the Inflation Protected Securities Fund (VIPSX), 10% in the Total Bond Market Index Fund (VBMFX) and 10% in the REIT Index Fund (VGSIX). Its average annualized return during the ten years of Buffett's bet was 6.1% - outperforming four of the five funds-of-funds and the average annualized return of the five funds. Historically, the great majority of active managers have subtracted from, not added to, investors' wealth. You'll save time and money if you ignore all the beat-the-market nonsense and invest in low-cost index funds. Admittedly, many investors find this recommendation unsatisfying because, surely, someone must be smart enough to beat the market. Maybe so, but he or she has yet to make an appearance.

Most financial professionals and investment theories equate risk with volatility, but Buffett disagrees -

*"Investing is an activity in which consumption today is foregone in an attempt to allow greater consumption at a later date. 'Risk' is the possibility that this objective won't be attained... It is a terrible mistake for investors with long-term horizons... to measure their investment "risk" by their portfolio's ratio of bonds to stocks."*

When you invest in a stock, you are purchasing a claim on the company's future profits. When you buy a bond, you expect to receive a stream of the issuer's future cash flows and the repayment of your principal when the bond matures. Stocks and bonds are priced to provide investors an incentive to exchange cash today for an uncertain, but greater, expected amount of cash in the future. Your portfolio must yield a long-term return greater than the rate of inflation if it is to finance greater consumption in the future. Despite what investors have been led to believe, volatility and risk are not

synonymous. Investors often mistake the temporary losses associated with stock market volatility for permanent loss, hence equating it with risk. Investors typically attempt to lower portfolio risk by increasing their allocation to high quality bonds and US Treasury securities, which are less volatile than stocks. But this doesn't make a portfolio less risky if we accept Buffett's definition of risk - that a portfolio fails to yield an inflation adjusted return that will grow purchasing power over time. We need to balance the discomfort that volatility produces today with the discomfort we'll experience tomorrow if our assets fail to provide enough income for our needs. Investing is about making intelligent decisions that strike a balance between enjoying life now and ensuring that we have the resources to enjoy life in the future.

Unlike stocks and bonds, cash reserves (such as credit union accounts, CDs, money market funds) do not provide an expectation of an after-tax gain greater than the rate of inflation. You can't expect money that is placed in "safe" cash accounts today to finance greater consumption in the future because each year the dollars will lose purchasing power due to inflation. You should have a cash reserve account to pay for near-term expected and unforeseen expenditures. Having too much cash is not a desirable situation— the opportunity cost is too high.

*"Though markets are generally rational, they occasionally do crazy things. Seizing the opportunities then offered does not require great intelligence, a degree in economics or a familiarity with Wall Street jargon...What investors then need instead is an ability to both disregard mob fears or enthusiasms and to focus on a few simple fundamentals."*

The stock market doesn't make special allowances for investors who possess a high IQ. When I'm told that someone is smart my response is: "So what?" That's no different than saying that someone is tall. Emotions can erase any perceived advantage that intellect may provide. In fact, intelligence can be a hinderance if it leads to overconfidence, overthinking and believing that complexity leads to better investment returns. It's how someone uses their smarts that makes the difference. Combine smarts with integrity, discipline, modesty and creativity and then you might have someone worth listening to. As Warren Buffett has said: *"The most important quality for an investor is temperament, not intellect."*

*"There is simply no telling how far stocks can fall in a short period. Even if your borrowings are small and your positions aren't immediately threatened by the plunging market, your mind may well become rattled by scary headlines and breathless commentary. And an unsettled mind will not make good decisions."*

One reason market timing has been such a disappointing strategy is that the best days in the stock market often occur near the worst days - during times of extreme volatility. Early February's slide saw the S&P 500 Index decline 10% in just nine trading days. A mere nine trading days from an all-time high to a 10% decline was, according to LPL Research, the quickest on record. Investors grossly overreacted and sold stock funds at a record rate. The financial media's headlines added fuel to the fire by proclaiming "The Largest Daily Decline Ever in The Dow!". This was an intentionally misleading headline because it referred to a point decline - a meaningless measure. The proper way to measure gains or losses is on a percentage basis and a daily loss of 4%, while unsettling, was nowhere near the largest daily percentage decline in the Dow - 23% on October 19, 1987. Two weeks later, the S&P 500 had its best weekly performance in five years. Walt Bettinger, CEO of Charles Schwab, said much the same as Buffett in an interview at the end of last year -

*"We don't believe it's possible for people to beat the market and predict the market and know when to get in and out of the market. Where most individual investors get in trouble is when the market goes down and they can't stand the pain, so they leave. Then they either don't get back in or they wait until the market's turned and gone way up and then get back in. That's what really crushes individual investors."*

Many investors have discovered that the more they pay attention to short-term stock market activity, the harder it is to capture the long-term return that stocks offer. Large company domestic stocks have delivered an average annualized return of about 10% since 1926. But in the short term, results have been quite different. In only six of the past 92 years was the annual return of the S&P 500 Index between 8% and 12%. In forty years, the annual return exceeded plus or minus 20%. Fortunately, 34 times the returns exceeded +20% and only six years saw a decline greater than 20%. Returns have been positive in 75% of all rolling one-year periods (January 1926 - December 1926, February 1926 - January 1927, March 1926 - February 1927, etc.), in 87% of five-year rolling periods, 95% of ten-year rolling periods and more than 99% of 15-year rolling periods. Past performance is no guarantee of future performance, but it reveals how stocks have performed over long time horizons that contained numerous political, geopolitical and economic crisis.

March 9<sup>th</sup> was the ninth birthday of the current bull market. Since its low point during the financial crisis, the S&P 500 is up 390%, including reinvested dividends. On March 9, 2009, nobody saw this coming or wanted to have anything to do with stocks. Negative, seemingly authoritative, fear mongering voices predicted nothing but bad days ahead - predictions that proved to be misguided and foolish. Investors who overcame the anxiety of those days and stayed invested have been richly rewarded.

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