INVESTMENTNEWSLETTER

If you can keep your head about you when everyone else is losing theirs, the world will be yours! - Rudyard Kipling

I will tell you how to become or stay rich. Close the doors. Be fearful when others are greedy and be greedy when others are fearful. And the most important quality for an investor is temperament, not intelligence. - Warren Buffett

Modern Finance is based primarily on scientific reasoning guided by theory, not subjectivity and speculation. - John "Mac" MacQuown, Dimensional Fund Advisors

2018 YEAR-END FLASH REPORT

JANUARY 2019
OBS Financial

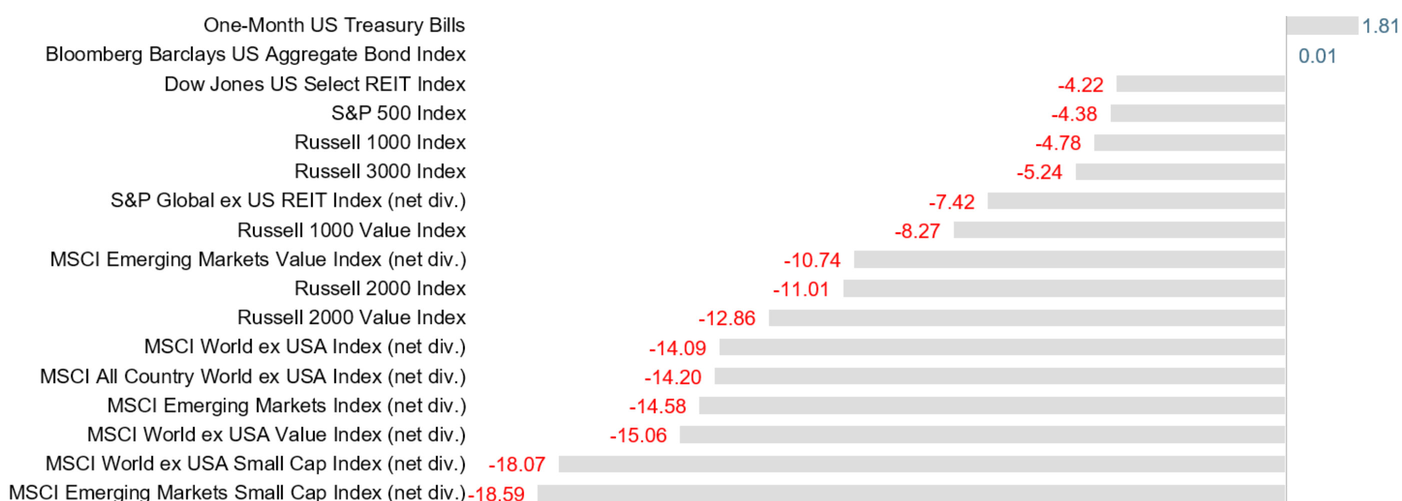
Wow! Did that turn quickly! After the US large cap stock market reached record highs at the end of Q3 2018 (as measured by the S&P 500), a tumultuous October was followed by a partial November recovery — and then a major December mark-down saw the S&P 500 decline 9% with US growth stocks off roughly 12%. Meanwhile, broad international equity indexes fell a touch harder in October with a more modest November recovery — but then provided some ballast by falling "only" half as much as US equities in December. Over the quarter, US large cap value out-performed US large cap growth by 417 basis points while US small cap value outperformed growth by 298 basis points, closing the value premium gap a bit, though it remains significantly negative. Unfortunately, the size premium was not assisted by Q4 results as the Russell 2000 fell 20.2% compared to the Russell 1000's quarterly return of -13.8%.

One positive result was the performance of very high-quality short duration fixed income (such as the type used within the OBS fixed income portfolios). As the Federal Reserve has increased the Federal Funds rate over the past year, and fixed income investors grow concerned about the stage of the current credit cycle, short-duration high quality instruments delivered positive and value-added performance to global equity portfolios.

Wealth Management

Primary asset class return benchmarks delivered the following results:

Exhibit 1. World asset classes, 2018 returns (%)



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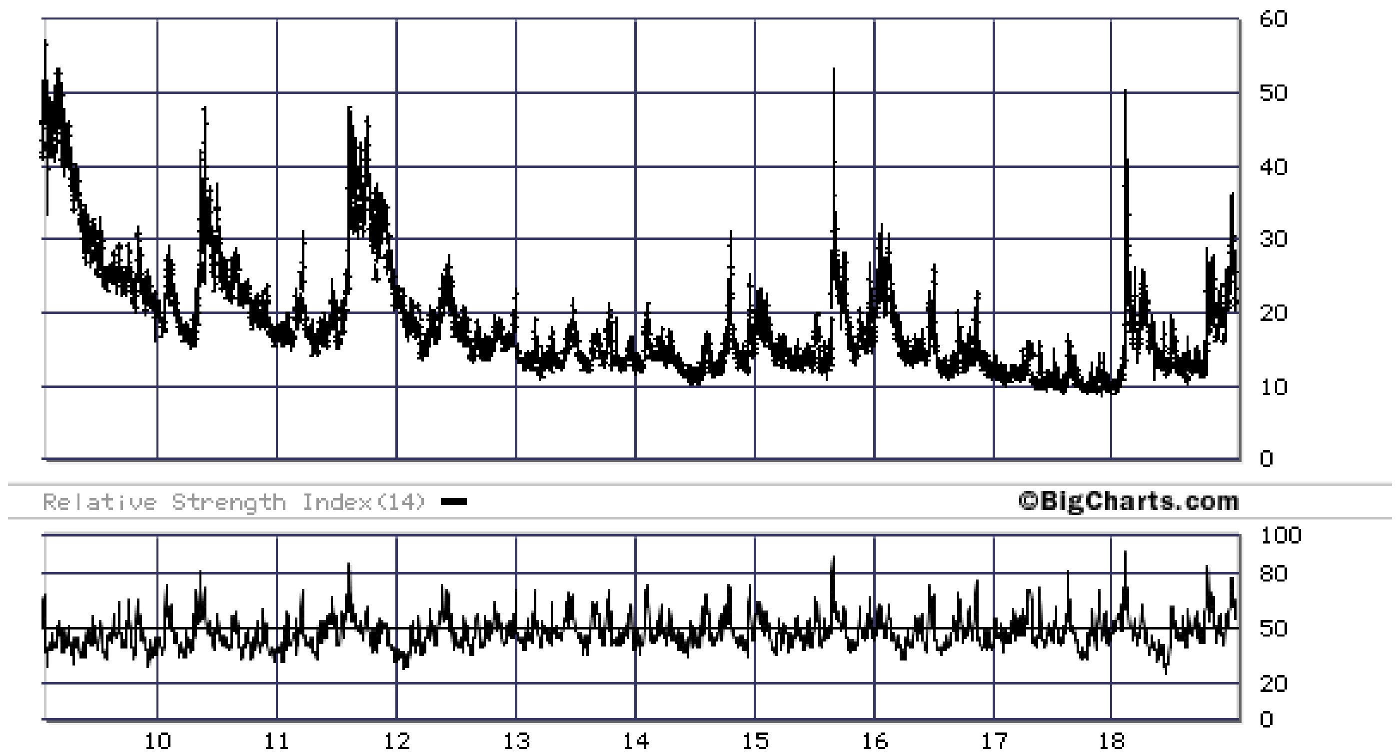
Investors expecting a typical Santa Clause rally were sorely disappointed with the lump of coal found in their stocking as US December returns were the worst recorded since 1931! Of course, whenever negative events occur that bring comparisons to the 1930s and the Great Depression, human brains quickly visualize the black and white soup kitchen lines and the desolate images of the Dust Bowl and Grapes of Wrath — and then short-circuit to falling portfolio values and the natural extrapolation of "will that be me"?

While past performance can not predict future results, and no expert can predict where capital markets will be headed over the next time-frame, we can ascertain that some of the valuation risk of many equities has been reduced — that is if the economy and expected profit levels hold reasonably close to their current levels/ expectations. While trading days have been few in 2019, it appears that investors are starting to agree that maybe the Q4 and December sell down was overdone as markets, while volatile, have been advancing.

We will have a better feel if this long-dated bull market still has legs after year-end earnings are released and forward outlooks are reviewed. A very big contributor to the recent "tantrum" was the position of the Federal Reserve, who indicated in December that they expected more rate hikes and that their balance sheet reduction (sales of existing bonds every month from their portfolio) would remain on automatic pilot. As investors surveyed the potential damage from a continuing and worsening trade war with China, that is now impacting sales and bottom lines (think Apple), the Fed's position did not "square" with many investors and a sell-off was born. Recently Fed Chairman Powell revised and softened the Fed's previous position providing investors with hope that the Fed will find a way to continue supportive market policies which lead to a 3.0% plus market upswing Friday, January 4. International markets also reacted positively, but not with the same magnitude, and it appears that we are seeing some constructive follow-through as this is being written on January 8.

Often times, rising stock markets are propelled by a steady "grind" upward with modest backfill, normal volumes, and infrequent bursts up or down (defined as greater than a daily 1% move). We think that as we make our way through 2019, those extended low vol markets are probably deep in the rear-view mirror and investors need to be prepared for wider swings in short-term portfolio value while being careful to not abandon their strategy.

Exhibit 2. VIX 10-year volatility



Source: BigCharts.com

As you can see by the past ten years of volatility (as measured by the VIX), we have gone through many periods of volatility spikes, followed by long stretches of modest volatility that tend to induce complacency. As the long-held Boy Scout motto suggests, "Be Prepared!" is a good way to think about asset allocation and financial planning in general.

Even if client portfolio values are down, one of the most productive activities advisors can do is to review clients' investment strategies, discuss the level of risk/reward and their capacity to handle higher levels of portfolio fluctuation, and then adjust if necessary. Our continued goal is to help clients harvest the returns that the global capital markets provide — over time — in an efficient manner. But clients must remain invested to do so.

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THE "ART" OF FORECASTING

JANUARY 2019
OBS Financial

Economic forecast announcements are almost on the scale as movie releases these days. Much like the hype machines launched for studio blockbusters, macroeconomic forecasts released through the year are often equally and aggressively promoted. Predictions about real GDP growth or inflation can become trending Twitter topics. But just because forecasts (and movies) are more publicized doesn't mean they're more worthy of our attention.

While film buffs have critics' reviews and Rotten Tomatoes to help them immediately separate the duds from the winners, investors don't have such help evaluating the accuracy of economic forecasts. All they can do is wait and see. Yet that doesn't prevent some investors from using such predictions for present day decision-making.

Technology and scientific analysis have improved the accuracy of forecasting to a degree, but there's a more fundamental issue at play – human nature. Forecasts may be very much informed by intense analytical and statistical computation, but bias and subjectivity still tend to find their way into the process. It can be costly to one's career to predict a recession when times are good, for example. This is seen as much in the forecasts of central banks and public economic authorities as in those made by private institutions. The uncertainty vastly complicates the picture for investors who seek to pursue an active strategy to beat benchmarks. Given the spotty track record of forecasts, especially at critical market turns, is it possible to rely on such predictions to outperform the market?

SCRUTINY ISN'T NEW

Questioning the accuracy and motives behind forecasts is not new. A 1989 paper published by the Federal Reserve Bank of Minneapolis was titled "Are Economic Forecasts Rational?" In it, researchers examined the rational expectations hypothesis, a concept they said had concerned economists "for at least [60] years." The theory posits that professional forecasters rationally base their expectations on the facts they have, including price data, and that divergence is not willful distortion. It was noted that much of the literature at that time rejected the hypothesis. However, the authors came to a different conclusion, contending that forecasters were indeed rational. Why? Precisely because, amazingly, "their forecast errors are unpredictable."[1]

This conclusion belies the nature of forecasts: That even when made with the best of intentions and the best available data, there is little way to tell if a prediction will prove to be accurate.

This conclusion belies the nature of forecasts: That even when made with the best of intentions and the best available data, there is little way to tell if a prediction will prove to be accurate. Undoubtedly, some forecasters will be more accurate than others, and there are times and

economic metrics that facilitate more accurate projections, like next-month unemployment claims. Still, the faith that active investors place in forecasts does not appear to be warranted by actual performance.

A 2016 paper found that rather than declining over time, errors have persisted in International Monetary Fund (IMF) forecasts for its crucial, biannual World Economic Outlook (WEO).

This is particularly important because when forecasters get it wrong, the errors can be magnified. Such was the case described in a paper released by the Boston Fed in 1992, which documented the wide variability in forecasting errors and factors. Authors concluded forecasting errors were "enormous" in the key recession periods of 1973-75 and 1981-82, but moderated during more normal business cycles. Active investors that depend on forecasts during critical market turning points could find themselves in an echo chamber of misinformation: The paper noted for a six-quarter stretch in 1979-80, nearly every one-quarter-ahead growth forecast observed was not only wrong in degree, but also wrong in direction![2]

FORECAST ACCURACY SUSPECT IN CENTRAL BANKS AND STOCK GURUS ALIKE

More recent research has confirmed the inherent weaknesses of forecasting. A 2016 paper found that rather than declining over time, errors have persisted in International Monetary Fund (IMF) forecasts for its crucial, biannual World Economic Outlook (WEO). The research, prepared by the IMF itself, found forecasts of next-year global real GDP were 0.6 percentage points too optimistic between 2011-2015, with 62 percent of forecasts overestimating next-year growth.[3] That number grew to 81 percent for forecasts of only G-20 countries, an alarmingly high share. A key conclusion reached was that "[m]acroeconomic forecast errors … tend to be positively biased in times of regional and global recessions," further reinforcing the notion that forecasts are often made through rose-colored lenses.

Divergence between economic forecasts and real results is also seen in the work of the Federal Reserve. A 2017 Fed paper looked at economic outlook uncertainty and association with forecasting errors. It opened with a stark caution, warning in the abstract that "if past performance is a reasonable guide to future accuracy, considerable uncertainty surrounds all macroeconomic projections, including those of [Fed Open Market Committee] participants."[4]

The research showed that not only the FOMC, but also its staff, the executive administration, the Congressional Budget Office (CBO), Blue Chip Economic Indicators, and the Survey of Professional Forecasters made errors throughout forecasts

of growth, inflation, and interest rates. Real GDP growth estimates were the most glaring. Using root-mean square error (RMSE) — a measure of the difference between model-based projections and values observed — the study found only marginal error in estimates for next quarter growth, but saw accuracy deteriorate as time frames lengthened, with predictions made for a year out averaging approximately 2 percentage points in error.

The optimistic bent of forecasts has been well-documented, even by the Fed's own hand. A 2018 paper released by the central bank examined the asymmetry of Fed forecasting errors in real GDP growth — i.e., the propensity for forecasts to project optimism during lower-than-average growth and underestimate during a stronger economy. Using data from the Fed-produced Greenbook, the author found "the probability of overprediction conditional on a quarter growing below trend is higher than the same probability conditional on the quarter growing above trend." Forecast mistakes are also seen in Organisation for Economic Co-operation and Development outlooks,[5] as well as CBO estimates for government spending.[6] Estimates for fiscal year 2017 federal outlays (made in March 2016) were off by 1.6 percent, in line with other forecasting error rates. CBO said the mean absolute error for projections from 1993 to 2016 was 2.3 percent.

Stock-pickers are another group susceptible to the inherent faults in forecasting. A 2014 analysis of equities market professionals tracked forecasts from 1998-2012, gathering more than 6,500 U.S. stock projections made by 68 forecasters, bulls and bears alike, employing technical, fundamental, and sentiment indicators. Controlling for various factors, the gurus were graded against S&P 500 index returns for the forecast horizon. The findings? Terminal accuracy averaged 47.4 percent.[7] Less than half the calls they made were accurate. The best-performing guru was right 68 percent of the time, with a large portion falling below the midway threshold. And, although this study didn't address it, we have all seen there are historical examples where the best performer in one period is not even above average in subsequent periods.

HARVESTING THE RETURNS THE MARKET PROVIDES

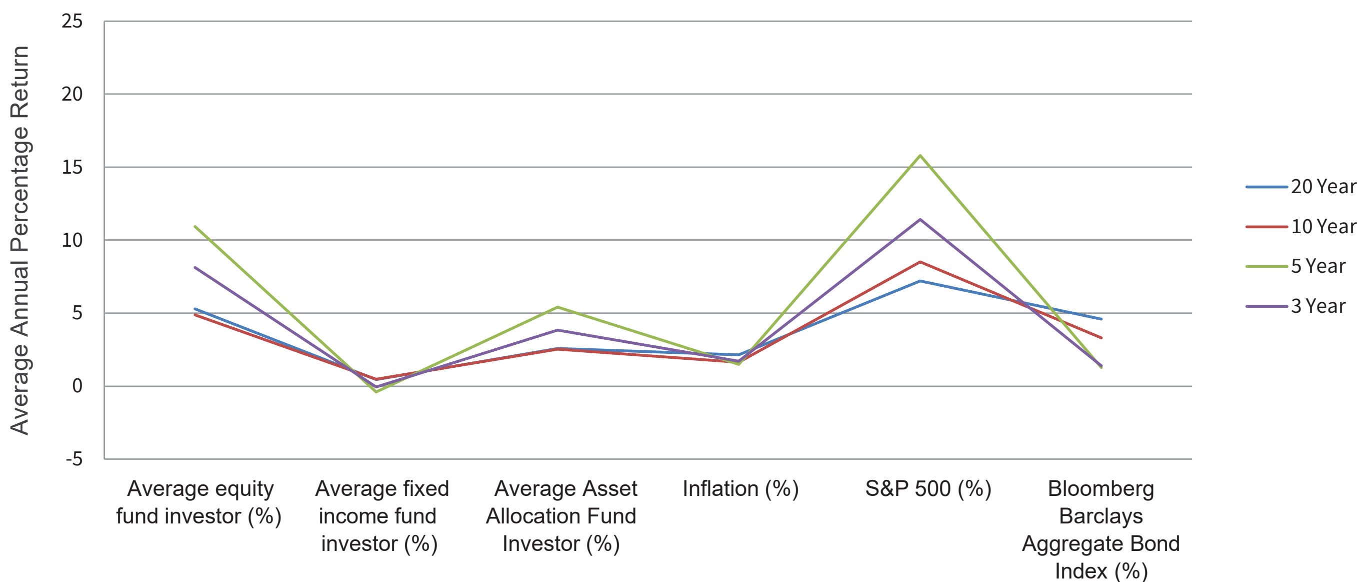
Active investing is very much that — active. These investors are constantly peeking around corners or jumping to see over the horizon, and restructuring their investments to capitalize on what they perceive to see. But what they believe they see is rarely the full story. Given the actual record of forecast accuracy, one must seriously question the utility of forecasts, as well as the feasibility of a strategy built on using them. Forecasts can have value and can be accurate in some time periods and contexts, but their persistent inaccuracy (often fed by excessive optimism or pessimism) makes them a dangerous basis for investment decisions. If you were to have had followed the stock gurus, you'd have been just as successful flipping a coin.

But what if market timers use something other than economic forecasts to divine future market movement? Some have claimed correlations between stock market levels and … well, you name it – everything from the cost of a fast food burger, to which NFL conference won the Super Bowl, to the political party occupying the oval office, to simple gut instincts. So, even if economic forecasts were accurate, they may not prove that the tactic of precision market timing actually works.

Fortunately, there is a direct way to measure the success of active stock picking and market timing versus passive buy-and-hold investing. For the past 26 years, the analysts at Dalbar, Inc. have been comparing market returns, for both stocks and bonds, with actual returns "taken home" by average mutual fund investors. The results are striking:

Keeping Investors in the Game

One Dimension of Advisor Alpha: Harvest the returns that capital markets provide over time



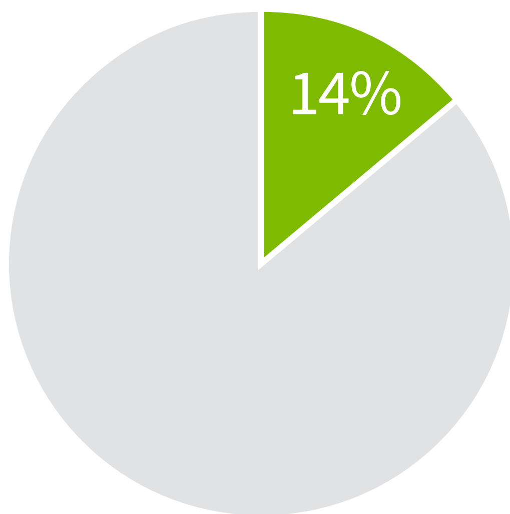
Source: Quantitative Analysis of Investor Behavior, 2018 Dalbar, Inc. www.dalbar.com

This shows that fund investors consistently underperform the markets – even by more than can be explained by just the cost differences (i.e., funds have expenses where market indexes don't). What explains this difference? One thing: the actions of fund investors. They tend to "buy high" when exuberant about market prospects or buoyed by promising forecasts, and then turn around to "sell low" when fearful as they listen to the fringe nay-sayers and skeptics, who, like a stopped clock, are eventually right twice in a cycle. Fund investors try to enhance their returns by going in and out of the markets instead of simply staying invested and harvesting the returns the markets provide – except with uncertain success. As Dalbar's analysis indicates, they consistently underperform.

The development of indexing and passive investing has presented an alternative to using forecasts, game-winning touchdowns, or gut instincts to plot the next investment move. In its latest active/passive barometer, released August 2018, Morningstar said just 36 percent of active managers both survived and outperformed their average passive peers in the 12 months through June. That's a decline from 43 percent in the previous year.[8] Over a longer term, Dimensional Fund Advisors shows that only 14 percent of stock funds and 13 percent of bond funds both survived and beat their benchmarks over a 15-year time frame as of the end of December 2017.

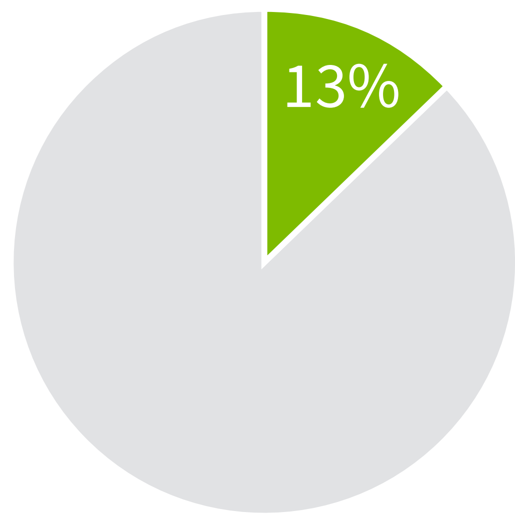
Even if well-informed data analysts believe they can select the small group of active managers that will consistently outperform – think again! The following

Fraction of mutual funds that survived and beat their index for 15 years, ending December 31, 2017



Stocks

2,828 beginning funds



Bonds

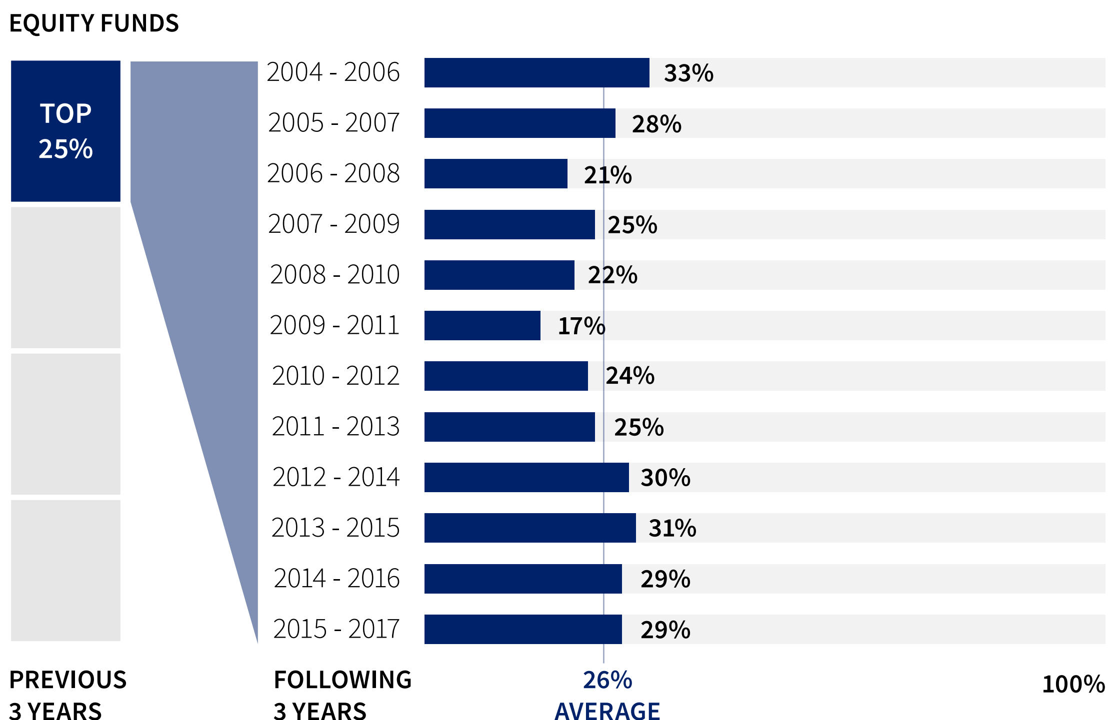
1,599 beginning funds

Analysis performed by Dimensional Fund Advisors. Beginning sample includes US-domiciled funds as of the beginning of the 15-year period ending December 31, 2017. The number of beginners is indicated below the asset class label. Outperformers (winners) are funds that had returns for every month in the sample period and outperformed their respective Morningstar category index over the period. US-domiciled mutual fund data is provided by Morningstar and Center for Research in Security Prices (CRSP) from the University of Chicago. See Data Appendix for more information. Past performance is no guarantee of future results.

chart shows how difficult it is for active managers who do outperform over one time period to repeat over the next (at least for a series of recent three-year time periods studied by Dimensional Fund Advisors).

It is extremely difficult to not only count on forecasts, but also to then convert those forecasts into selecting investments (and investment managers) that can consistent outperformance,

Percentage of funds that were top-quartile performers in consecutive three-year periods



Analysis performed by Dimensional Fund Advisors. At the end of each year, funds are sorted within their category based on their three-year total return. The tables show the percentage of funds in the top quartile (25%) of three-year performance that ranked in the top quartile of performance over the following three years. Example: For 2017, only 29% of equity funds were ranked in the top quartile of performance in their category in both the previous period (2012–2014) and subsequent period (2015–2017). US-domiciled open-end mutual fund data is from Morningstar and Center for Research in Security Prices (CRSP) from the University of Chicago. Past performance is no guarantee of future results. See Data Appendix for more information.

let alone bring home even close to benchmark returns that will help investors fulfill their financial plans. But it doesn't have to be that way.

At OBS Financial, we believe that global capital markets have the capacity to produce quality, risk-adjusted returns well above available risk-free levels, over time. We construct portfolios using our "structured investing" approach to help investors improve their odds of success and harvest the returns that markets have historically provided in a prudent, efficient, and cost-effective manner.

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SOURCES

1 https://www.minneapolisfed.org/research/qr/qr1323.pdf

2 https://www.bostonfed.org/publications/new-england-economic-review/1992-issues/issue-july-august-1992/how-large-are-economic-forecast-errors.aspx

3 https://www.imf.org/external/pubs/ft/wp/2016/wp16228.pdf

4 https://www.federalreserve.gov/econresdata/feds/2017/files/2017020pap.pdf

5 https://www.konj.se/download/18.42684e214e71a39d0723ab3/1436518545643/Working-Paper-72-The-Accuracy-of-European%20Growth-and-Inflation-Forecasts.pdf

6 https://www.cbo.gov/publication/53923

7 https://www.cxoadvisory.com/gurus/

8 https://www.morningstar.com/content/dam/marketing/shared/pdfs/Research/Active_Passive_ Barometer_2018_08.pdf?cid=EMQ_

Data Appendix: The Mutual Fund Landscape study is conducted by Dimensional Fund Advisors LP. US-domiciled open-end mutual fund data is from Morningstar and Center for Research in Security Prices (CRSP) from the University of Chicago.Equity fund sample includes the Morningstar historical categories: Diversified Emerging Markets, Europe Stock, Foreign Large Blend, Foreign Large Growth, Foreign Large Value, Foreign Small/Mid Blend, Foreign Small/Mid Growth, Foreign Small/Mid Value, Japan Stock, Large Blend, Large Growth, Large Value, Mid-Cap Blend, Mid-Cap Growth, Mid-Cap Value, Miscellaneous Region, Pacific/Asia ex-Japan Stock, Small Blend, Small Growth, Small Value, and World Stock. For additional information regarding the Morningstar historical categories, please see "The Morningstar Category Classifications" at morningstardirect.morningstar.com/clientcomm/Morningstar_Categories_US_April_2016.pdf.Fixed income fund sample includes the Morningstar historical categories: Corporate Bond, High Yield Bond, Inflation-Protected Bond, Intermediate Government, Intermediate-Term Bond, Muni California Intermediate, Muni California Long, Muni Massachusetts, Muni Minnesota, Muni National Intermediate, Muni National Long, Muni National Short, Muni New Jersey, Muni New York Intermediate, Muni New York Long, Muni Ohio, Muni Pennsylvania, Muni Single State Intermediate, Muni Single State Long, Muni Single State Short, Short Government, Short-Term Bond, Ultrashort Bond, and World Bond. For additional information regarding the Morningstar historical categories, please see "The Morningstar Category Classifications" at morningstardirect.morningstar.com/clientcomm/Morningstar_Categories_US_April_2016.pdf. Index funds and fund-of-funds are excluded from the sample. Net assets for funds with multiple share classes or feeder funds are a sum of the individual share class total net assets. The return, expense ratio, and turnover for funds with multiple share classes are taken as the asset-weighted average of the individual share class observations. Fund share classes are aggregated at the strategy level using Morningstar FundID and CRSP portfolio number. Each fund is evaluated relative to the Morningstar benchmark assigned to the fund's category at the start of the evaluation period. So, if, for example, a fund changes from Large Value to Large Growth during the evaluation period, then its return will still be compared to the Large Value category index. Surviving funds are those with return observations for every month of the sample period. Winner funds are those that survived and whose cumulative net return over the period exceeded that of their respective Morningstar category index. Loser funds are funds that did not survive the period or whose cumulative net return did not exceed their respective Morningstar category index. Index data provided by Bloomberg Barclays, MSCI, Russell, FTSE Fixed Income LLC, and S&P Dow Jones Indices. Bloomberg Barclays data provided by Bloomberg. MSCI data © MSCI 2018, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. FTSE fixed income indices © 2018 FTSE Fixed Income LLC, all rights reserved. S&P and Dow Jones data © 2018 S&P Dow Jones Indices LLC, a division of S&P Global. Indices are not available for direct investment. Their performance does not reflect the expenses associated with 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.

THE UNCERTAINTY PARADOX

JANUARY 2018
Dimensional Fund Advisors

Doubt is not a pleasant condition, but certainty is an absurd one. —Voltaire

"The market hates uncertainty" has been a common enough saying in recent years, but how logical is it? There are many different aspects to uncertainty, some that can be measured and some that cannot. Uncertainty is an unchangeable condition of existence. As individuals, we can feel more or less uncertain, but that is a distinctly human phenomenon. Rather than ebbing and flowing with investor sentiment, uncertainty is an inherent and ever-present part of investing in markets. Any investment that has an expected return above the prevailing "risk-free rate" (think T-Bills for US investors) involves trading off certainty for a potentially increased return.

Consider this concept through the lens of stock vs. bond investments. Stocks have higher expected returns than bonds largely because there is more uncertainty about the future state of the world for equity investors than bond investors. Bonds, for the most part, have fixed coupon payments and a maturity date at which principal is expected to be repaid. Stocks have neither. Bonds also sit higher in a company's capital structure. In the event a firm goes bust, bondholders get paid before stockholders. So, do investors avoid stocks in favor of bonds as a result of this increased uncertainty? Quite the contrary, many investors end up allocating capital to stocks due to their higher expected return. In the end, many investors are often willing to make the tradeoff of bearing some increased uncertainty for potentially higher returns.

MANAGING EMOTIONS

While the statement "the market hates uncertainty" may not be totally logical, it doesn't mean it lacks educational value. Thinking about what the statement is expressing allows us to gain insight into the mindset of individuals. The statement attempts to personify the market by ascribing the very real nervousness and fear felt by some investors when volatility increases. It is recognition of the fact that when markets go up and down, many investors struggle to separate their emotions from their investments. It ultimately tells us that for many an investor, regardless of whether markets are reaching new highs or declining, changes in market prices can be a source of anxiety. During these periods, it may not feel like a good time to invest. Only with the benefit of hindsight do we feel as if we know whether any time period was a good one to be invested. Unfortunately, while the past may be prologue, the future will forever remain uncertain.

STAYING IN YOUR SEAT

In a recent interview, David Booth was asked about what it means to be a long-term investor: "People often ask the question, 'How long do I have to wait for an investment strategy to pay off? How long do I have to wait so I'm confident that stocks will have a higher return than money market funds, or have a positive return?' And my answer is it's at least one year longer than you're willing to give. There is no magic number. Risk is always there."

Part of being able to stay unemotional during periods when it feels like uncertainty has increased is having an appropriate asset allocation that is in line with an investor's willingness and ability to bear risk. It also helps to remember that, during what feels like good times and bad, one wouldn't expect to earn a higher return without

taking on some form of risk. While a decline in markets may not feel good, having a portfolio you are comfortable with, understanding that uncertainty is part of investing, and sticking to a plan that is agreed upon in advance and reviewed on a regular basis can help keep investors from reacting emotionally. This may ultimately lead to a better investment experience.

Source: Dimensional Fund Advisors LP. There is no guarantee investment strategies will be successful. Diversification does not eliminate the risk of market loss. All expressions of opinion are subject to change. This article is distributed for informational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services.

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