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## Best Behavior: Applying Behavioral Finance to Today's Markets

### Overview

- Behavioral biases can prevent investors from achieving their investment goals. Identifying the tendencies that are most likely to occur in today's markets can point the way to better investment practices.
- Home bias, the tendency to invest in familiar countries and companies, can reduce portfolio diversification. Meanwhile, mental accounting, or assigning specific purposes to different holdings, can cause investors to reach for yield, jeopardizing the long-term health of investors' portfolios.
- Other biases may paralyze investors into inaction (status quo bias) or spur them to time the markets (overconfidence). Or, investors may be unduly influenced by easily remembered events (availability heuristic).
- In today's markets, investors could overcome these biases by diversifying geographically, rebalancing at least annually, avoiding reaching for yield, remaining level-headed and taking a long-term perspective.

### Introduction

In volatile and uncertain markets, all we can control is our investment behavior. In the five years since the financial crisis, investors have lived through record low interest rates, an uneven global economic recovery and significant policy and market uncertainty. In response, many investors have sat on the sidelines while others have reached for yield in risky assets. As a result, many missed out on the stock market's subsequent recovery, especially in U.S. and international developed market equities.

In this bulletin we describe five cognitive and emotional biases that prevent investors from achieving their investment goals in today's markets. These biases—home bias, mental accounting, status quo bias, overconfidence and the availability heuristic—can help explain investor behavior since 2008. Identifying these patterns can point the way toward better investment practices.

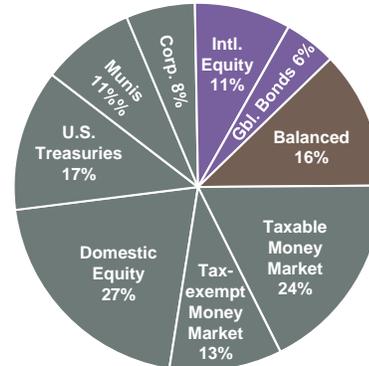
**Home Bias: Failing to diversify geographically**

Investors can be prone to home bias, the tendency to over-allocate to investments in their home countries simply because they may be more familiar with their domestic markets. As shown in Figures 1 and 2, while the U.S. constitutes only 48% of the world equity market and 42% of the world bond market, we estimate that U.S. investors have average allocations of 78% and 80%, respectively, to those markets. Home bias limits opportunity and, since foreign markets exhibit lower correlations to U.S. markets, reduces portfolio diversification.

While U.S. stocks are an important component of any portfolio, their outperformance since 2009 makes this an opportune time for investors to consider global opportunities. For example, European markets are attractive in light of the region's return to growth. The French and German equity markets performed well in 2013, returning 28% and 32%, respectively, and underlying fundamentals can continue to improve as fiscal drag dissipates and the European Central Bank (ECB) maintains its accommodative monetary stance. Although investor sentiment toward Europe is improving, Figure 3 shows that the region's stock market index is still 20% below its 2007 peak and yields 3.6%. Meanwhile, cumulative equity fund flows are still far below their 2007 levels (Figure 4).

**Figure 1: Retail Mutual Fund Ownership**

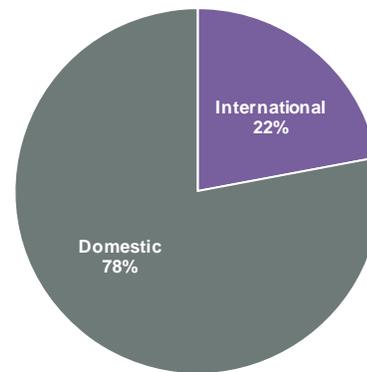
2011, funds outside retirement and managed accounts



Sources: Cerulli, J.P. Morgan Asset Management. Data are as of 2/27/2014.

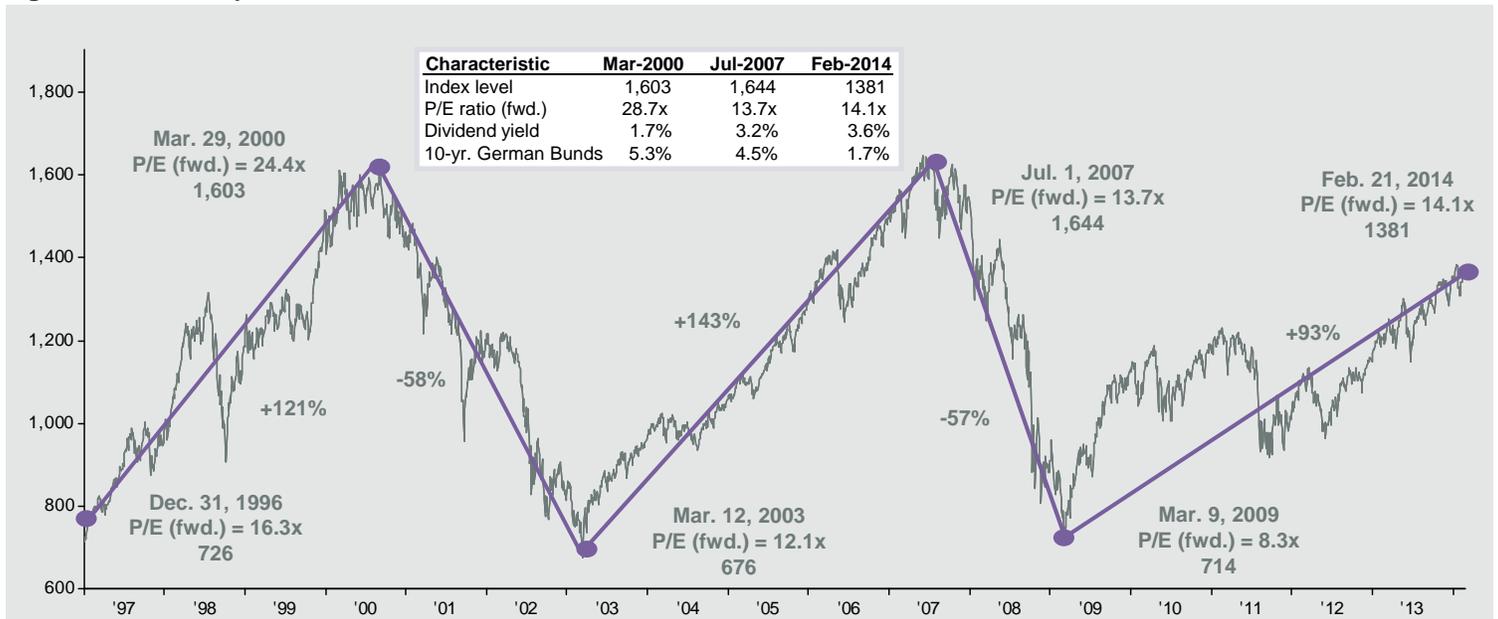
**Figure 2: Global Equity Exposure**

U.S. investors, Financial Accounts of the United States



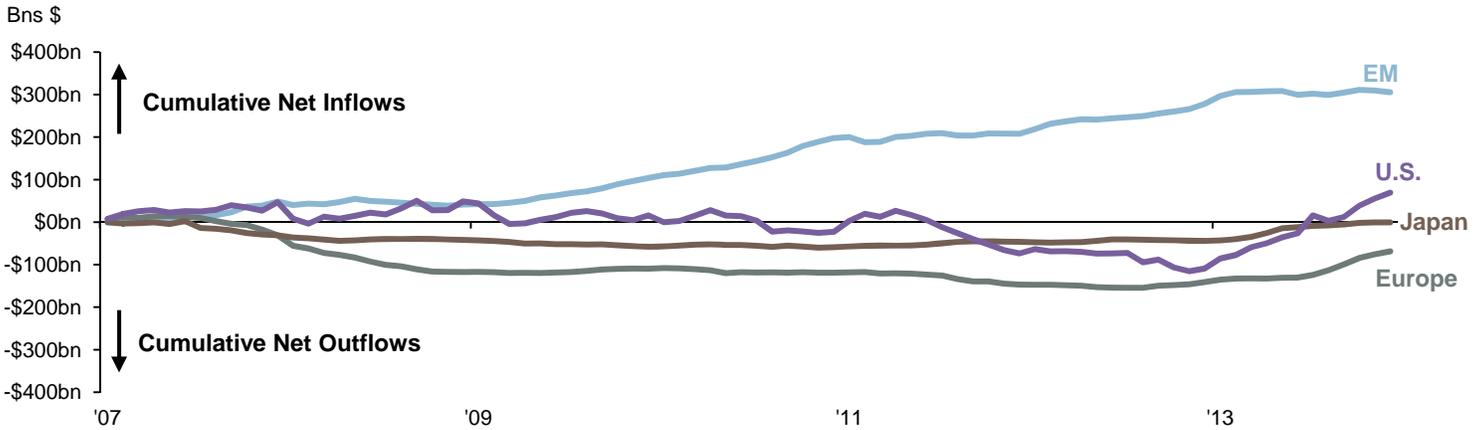
Sources: FRB, J.P. Morgan Asset Management. Data are as of 2/27/2014.

**Figure 3: MSCI Europe Index At Inflection Points**



Sources: MSCI, J.P. Morgan Asset Management. Index levels are in local currency. Forward Price to Earnings Ratio is a bottom-up calculation based on the most recent MSCI Europe Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on MSCI Europe Index price movement in local currency only, and do not include the reinvestment of dividends. Data are as of 2/27/2014.

**Figure 4: Cumulative Global Equity Flows**



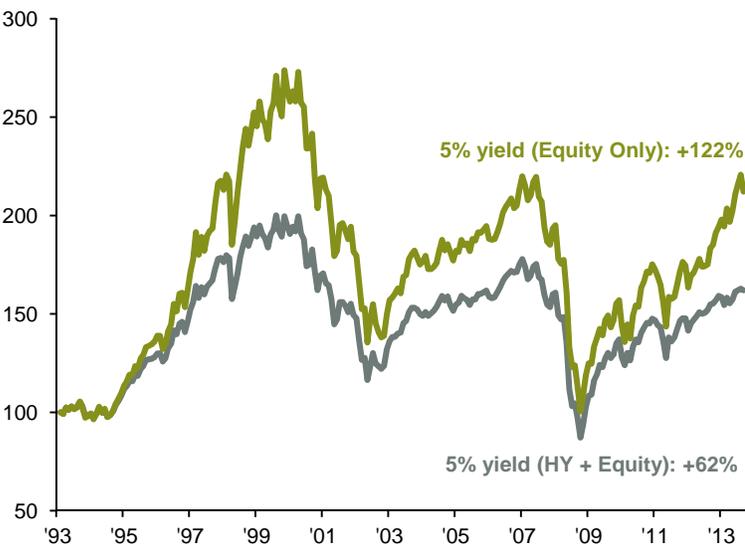
Sources: Strategic Insight, J.P. Morgan Asset Management. Data are as of 2/27/2014.

**Mental Accounting: Reaching for yield**

In the current low interest-rate environment, many investors have settled for low-yielding bonds while others have reached for yield by purchasing stocks and bonds exclusively for their dividends and coupons, regardless of risk. In doing so, these investors have mentally categorized certain assets, such as bonds, REITs and dividend-paying stocks, as yield vehicles, while labeling other assets as investments held for capital appreciation. This tendency to assign specific purposes to different holdings is a form of mental accounting that can jeopardize the long-term health of the portfolio. Compartmentalizing investments into different mental accounts violates one of the basic rules of finance—that money is fungible.

**Figure 5: Not Selling Principal is a Bad Principle**

Indexed to 100, 5% constant yield and annualized drawdown



Sources: Standard & Poor's, Barclays, J.P. Morgan Asset Management. The blended high yield and equity portfolio is rebalanced monthly to keep a constant 5% portfolio yield. Annual drawdown for income purposes assumes a 5% income need. Data are as of 2/27/2014.

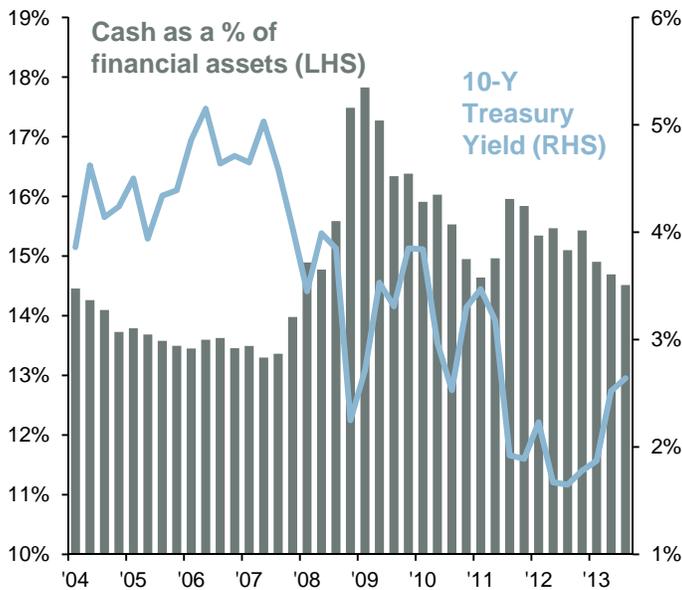
Instead, a total return approach—which takes into account capital appreciation as well as yield—can meet both income needs and long-term goals. Specifically, investors can construct their own portfolio income while preserving capital growth. To achieve a specific level of portfolio income, the investor would not only receive coupons and dividends but also sell principal if possible. As interest rates rise, less principal would need to be sold to generate the same level of income. For some investors, realized long-term capital gains may also receive preferential tax treatment relative to coupons which are taxed as ordinary income. For those whose income needs and portfolios allow it, this approach is appealing given the low, but rising, rate environment. The chart in Figure 5 is an illustrative example of a total return approach. The green line represents the performance of a 100% stock portfolio that receives dividends and sells principal/gains to achieve a 5% annualized yield. The grey line shows the performance of a portfolio of high yield bonds and stocks that generates a 5% yield from only dividends and coupons. Over the last twenty years, the performance difference between the two is dramatic, with the total return portfolio returning 60% more due to the long-run outperformance of stocks. Thus, while bonds are always important for portfolio diversification, coupons should not be relied upon exclusively for income at a time of record low rates.

**Status Quo Bias: Staying on the sidelines and failing to rebalance**

In the context of investor behavior, status quo bias refers to the tendency to accept existing portfolio allocations regardless of whether they are still aligned with long-term goals. For example, many investors have remained on the sidelines since 2008 as shown in Figure 6. In the U.S., cash as a percentage of household financial assets is at an elevated level of 14.5%, with over \$1.3 trillion of that cash in money market funds, Individual Retirement Accounts (IRAs) and Keogh plans. At a time when returns on cash are measured in basis points, investors who are under-invested in stocks and bonds should avoid inaction by rethinking their allocations.

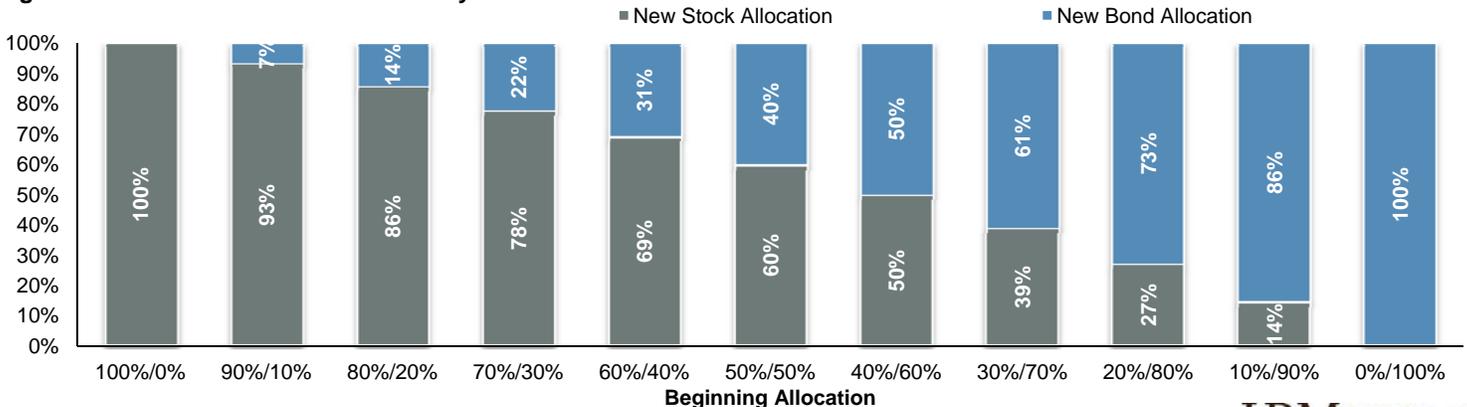
**Figure 6: Household Cash and 10-Year Treasury Yields**

Households deposits and money market funds as a % of financial assets



Sources: FRB, U.S. Treasury, J.P. Morgan Asset Management. Data are as of 2/27/2014.

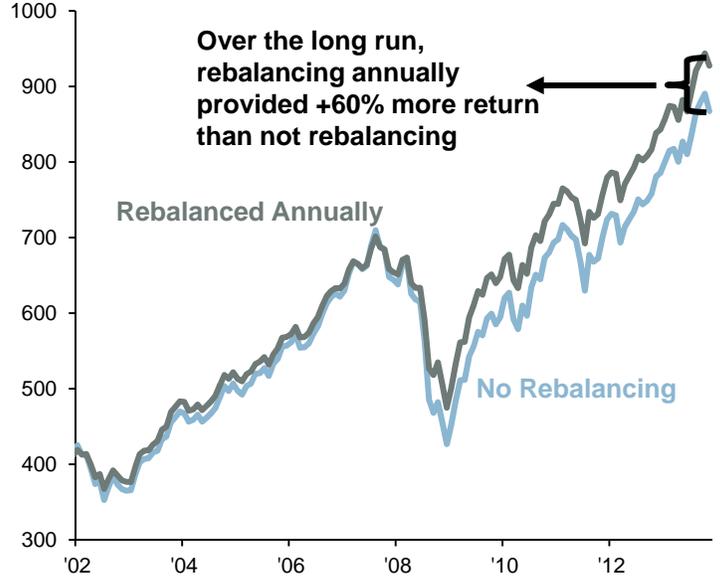
**Figure 7: Portfolio drift over the last two years**



Sources: Standard & Poor's, Barclays, J.P. Morgan Asset Management. Scenario is run from 12/31/2011-12/31/2013. Data are as of 2/27/2014.

**Figure 8: Rebalancing improves long-term performance**

Total return USD, 40% US Equity, 15% EAFE Equity, 5% EM Equity, 40% Barclays Aggregate



Sources: Standard & Poor's, Barclays, MSCI, J.P. Morgan Asset Management. Portfolio simulations start in 1998 with a base value of 100. Data are as of 2/27/2014.

Similarly, those who have remained invested but have not rebalanced in the last two years likely have seen significant portfolio drift. For example, a hypothetical portfolio with a 50% / 50% allocation to stocks and bonds would have drifted to 60% / 40% over this period, as shown in Figure 7.

Rebalancing a diversified portfolio at least annually should continue to be the cornerstone of a disciplined investment approach that avoids status quo bias. Figure 8 demonstrates the benefit of rebalancing a diversified portfolio annually: Over the past 25 years, rebalancing helped shield investors from being over and under exposed during market turmoil and rallies. This 60 percent difference results from a disciplined approach of buying low and selling high.

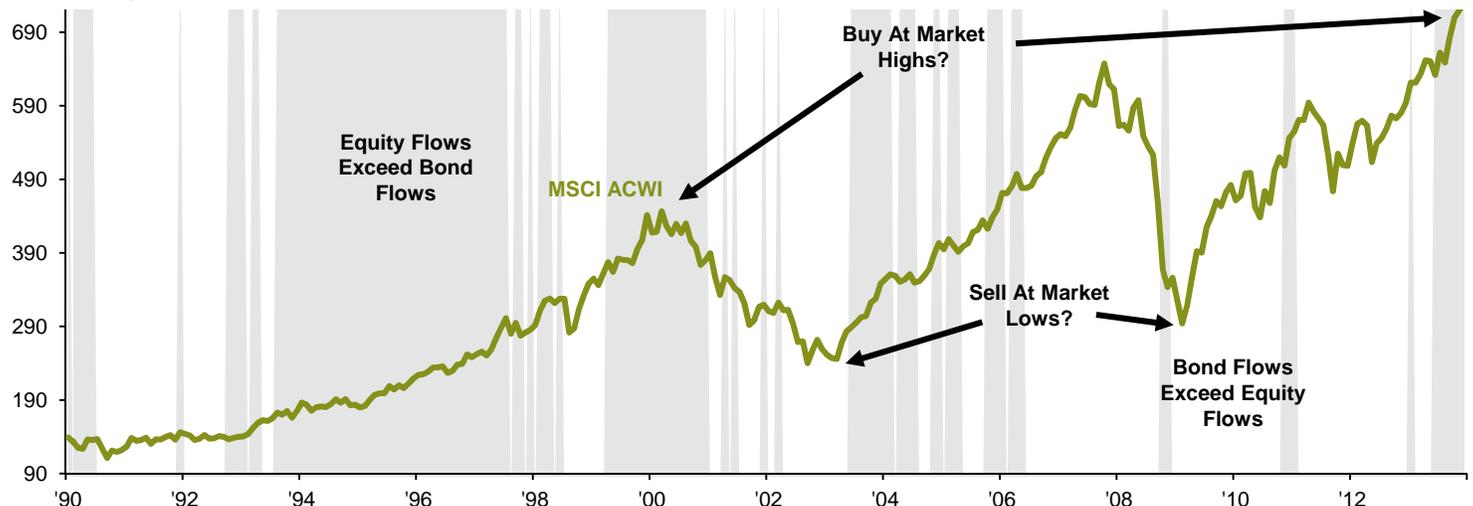
**Overconfidence: Losing portfolio discipline**

After a year of broad-based outperformance with relatively little volatility in the stock market, it may be difficult for individual investors to rein in their overconfidence. By attributing prior success to personal skill rather than general market performance, this emotional bias spurs investors to take more risk than they otherwise would. Overconfidence can drive investors to try to time the market, hold concentrated positions in individual stocks and make costly or excessive trades. Investors can mitigate overconfidence by documenting their investment ideas, including ones that are not executed. Measuring the effectiveness of these ideas relative to market indices, including execution costs, provides an honest assessment of their performance.

Additionally, the data in Figure 9 show that, in aggregate, individual investors do not time the markets well. The chart highlights periods when equity fund flows exceeded bond flows, an indicator of broad market timing. Since 2000, investors have missed most bull market periods and have only recently started to invest in equities again.

**Figure 9: World Market Performance and Fund Flows**

MSCI ACWI performance and relative investor flows



Source: ICI, MSCI, FactSet, J.P. Morgan Asset Management. Grey bars represent times when equity flows exceeded bond flows. White bars represent when bond flows exceeded equity flows. Data as of 2/27/2014.

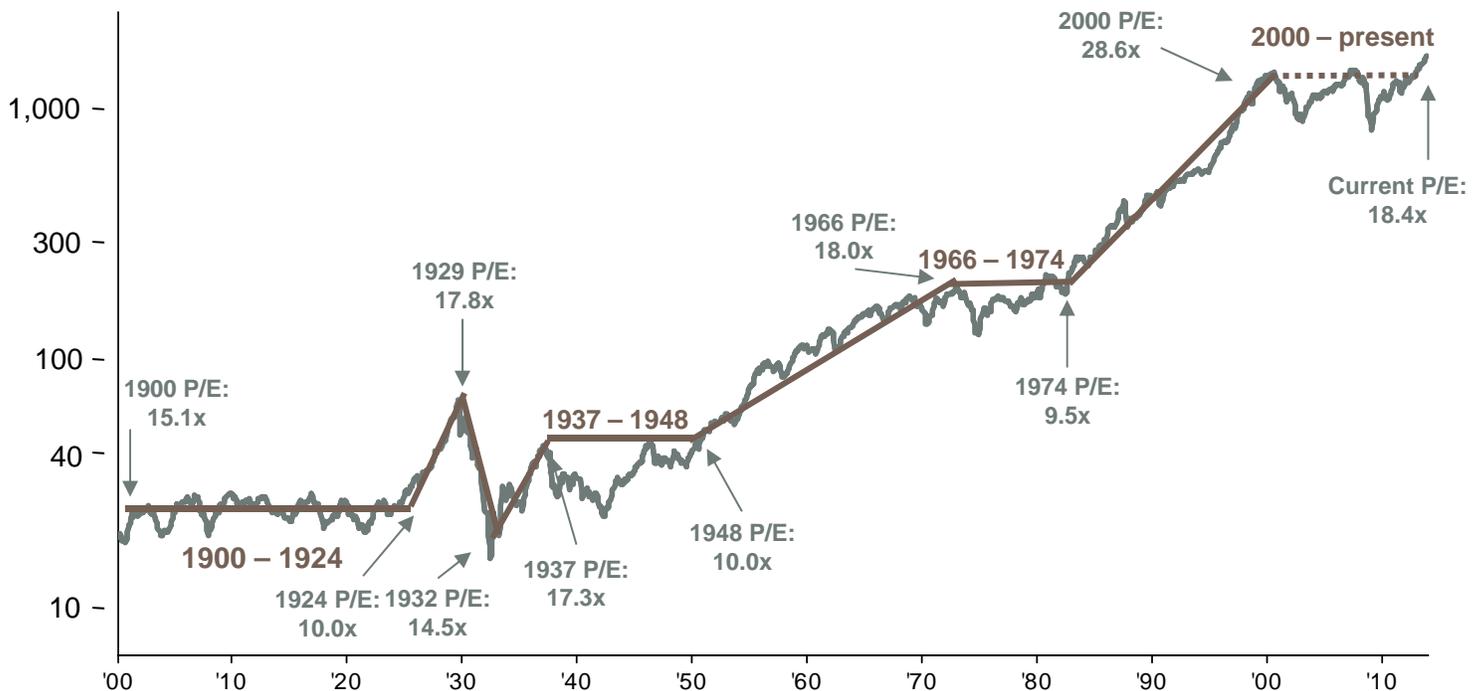
**Availability Heuristic: Not taking the long-view on the markets**

While most investors understand the importance of focusing on long-run performance rather than short-run volatility, this is difficult in practice. One culprit is the availability heuristic, the notion that experiences that are more easily recalled will tend to drive decisions. For example, just as the Great Depression left long-lasting effects on investor psyches, the financial crisis of 2008 is extremely vivid because it was unexpected, sudden and dramatic. Compared to the slow and steady recovery we have seen in the past five years, the financial crisis is more likely to influence decisions by making investors more risk-averse than is appropriate. This bias compounds the status quo bias described earlier for individuals who are overweight cash.

Eventually, as the market continues to improve, the availability heuristic may be driven less by vividness and more by the recency bias, or the tendency to recall recent events more easily than past ones. Because investors use recent patterns as a template for what will happen in the future, they tend to chase returns and follow trends, often referred to as herd behavior, even if they require imprudent risks.

Investors can overcome these biases by taking the long view on stocks. Figure 10 reminds us that despite market volatility and bear markets, investors are rewarded for taking prudent risks over the long run. At the same time, investors should stick to a disciplined investment plan to avoid herd behavior, just as they would to avoid overconfidence.

Figure 10: The long-run performance of U.S. stocks



Source: Shiller, FactSet, J.P. Morgan Asset Management. Data shown in log scale to best illustrate long-term index patterns. P/E ratios shown at price peaks and troughs use trailing four quarters of reported earnings and are shown as a one year average.

**Conclusion**

Understanding the investor biases that are most common in today’s markets is the first step toward improving portfolio performance. Rather than letting their cognitive and emotional biases influence their investment decisions, investors should instead diversify geographically, rebalance their well-diversified portfolios at least annually, avoid reaching for yield, remain level-headed and take the long view. Even as market conditions change over time, the need for portfolio discipline and rational behavior remains the same.

***Any performance quoted is past performance and is not a guarantee of future results.***

***Diversification does not guarantee investment returns and does not eliminate risk of loss.***

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