



# *Quantitative Analysis of Investor Behavior*

**ADVISOR  
EDITION**

## **2020 QAIB Report**

For the period ending: **December 31, 2019**

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## Introduction

Since 1994, **DALBAR's Quantitative Analysis of Investor Behavior (QAIB)** has measured the effects of investor decisions to buy, sell and switch into and out of mutual funds over short and long-term time frames. These effects are measured from the perspective of the investor and do not represent the performance of the investments themselves. The results consistently show that the average investor earns less – in many cases, much less – than mutual fund performance reports would suggest.

The goal of QAIB is to improve performance of both independent investors and financial advisors by managing behaviors that cause investors to act imprudently. QAIB offers guidance on how and where investor behaviors can be improved.

The 26<sup>th</sup> Annual QAIB examines real investor returns in nearly 30 different categories of investors. The analysis covers the 20-year period to December 31, 2019, which encompasses the drop at the turn of the millennium, the crash of 2008, plus recovery periods leading up to the most recent bull market.

## Importance of QAIB

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The best financial professionals double as behavioral finance coaches of their clients. When markets are down or even volatile, questions will arise from concerned clients and perspective will be needed. The QAIB report and materials give advisors the tools to tell a story, put things into perspective, and deliver the calming messages that are needed to mitigate return-destroying behavior. Such messages include:

- The prudence of a long-term, buy and hold approach
- The folly of measuring investment success against statistical benchmarks
- Awareness of common behavioral influences
- Lessons from past markets
- The importance of investing assets as early as possible

## About DALBAR, Inc.

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**DALBAR, Inc.** is the financial community's leading independent expert for evaluating, auditing and rating business practices, customer performance, product quality and service. Launched in 1976, DALBAR has earned the recognition for consistent and unbiased evaluations of investment companies, registered investment advisers, insurance companies, broker/dealers, retirement plan providers and financial

professionals. DALBAR awards are recognized as marks of excellence in the financial community.

## Methodology

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QAIB uses data from the Investment Company Institute (ICI), Standard & Poor's, Bloomberg Barclays Indices and proprietary sources to compare mutual fund investor returns to an appropriate set of benchmarks. Covering the period from January 1, 2000 to December 31, 2019, the study utilizes mutual fund sales, redemptions and exchanges each month as the measure of investor behavior. These behaviors reflect the "Average Investor." Based on this behavior, the analysis calculates the "average investor return" for various periods. These results are then compared to the returns of respective indices.

A glossary of terms and examples of how the calculations are performed can be found in the Appendices section of this report.

## The QAIB Benchmark and Rights of Usage

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Investor returns, retention and other industry data presented in this report can be used as benchmarks to assess investor performance in specific situations. Among other scenarios, QAIB has been used to compare investor returns in individual mutual funds and variable annuities, as well as for client bases and in retirement plans. Please see the "Rights of Usage" section in the Appendices for more information and appropriate citation language.

## Visit the QAIB Store!

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Renowned investor behavior research is now at your fingertips! Visit the QAIB Store at [www.QAIB.com](http://www.QAIB.com) for images, infographics and more.

*For questions, please see our FAQ page in the QAIB Store ([www.QAIB.com](http://www.QAIB.com)) or contact us at [qaib@dalbar.com](mailto:qaib@dalbar.com) or 617-624-7100.*

## Executive Summary

- Since 1984, approximately 70% of Average Investor underperformance occurred during only 10 key periods in which investors withdrew their investments during periods of market crises.
- Of the 10 most severe cases of underperformance:
  - 8 cases would have produced better returns for the Average Investor one year later if they had taken **no action** and held on to their investments.
  - 1 case would have produced better results one year later if the Average Investor had **purchased portfolio insurance**, and
  - 1 case would have produced better results one year later if the Average Investor had **withdrawn assets**.
- A buy and hold strategy of \$100,000, earning S&P returns, would have earned:
  - **\$25,515** more than the Average Equity Fund Investor from 2016-2019
  - **\$16,228** more than the Average Equity Fund Investor from 2017-2019
  - **\$12,129** more than the Average Equity Fund Investor from 2018-2019
  - **\$5,936** more than the Average Equity Fund Investor in 2019
- The Average Equity Fund Investor earned a return of 26.14% in 2019, 5.35% lower than the S&P 500 return of 31.49%.
- The Average Equity Fund Investor was a net withdrawer of assets in 2019 for the 4<sup>th</sup> year in a row, cashing out on 2.27% of the equity assets held at the beginning of the year.
- The Average Equity Fund Investor “Guessed Right” 3 of the 12 months in 2019, the lowest Guess Right Ratio (25%) in the last 20 years.
- The Average Equity Fund Investor performed best in growth funds, with the Average Mid-Cap Growth Fund Investor being top performing size and style investor (33.11%).
- The Average Technology Fund Investor was the top performing Sector Fund Investor, earning 43.94% in 2019.

- The Average Equity Fund Investor displayed patience within their investments. Retention rates increased by 6 months, from 4.0 years to 4.5 years, **the highest Retention Rate recorded by the study (covering 36 years)**.
- The Average Fixed Income Fund Investor experienced their best annual gain since 2012, earning 4.62%, but falling well short of the BloombergBarclays Aggregate Bond Index return of 8.72%.
- The Average Fixed Income Fund Investor made strong contributions to their bond portfolio in 2019, contributing 10.72% to the assets held at the beginning of the year.
- Retention rates increased for the Average Fixed Income Fund Investor and Average Asset Allocation Fund Investor in 2019. For bond investors, Retention Rates rose from 3.0 years to 3.6 years. For asset allocation investors, Retention Rates rose from 4.5 to 5.0 years.

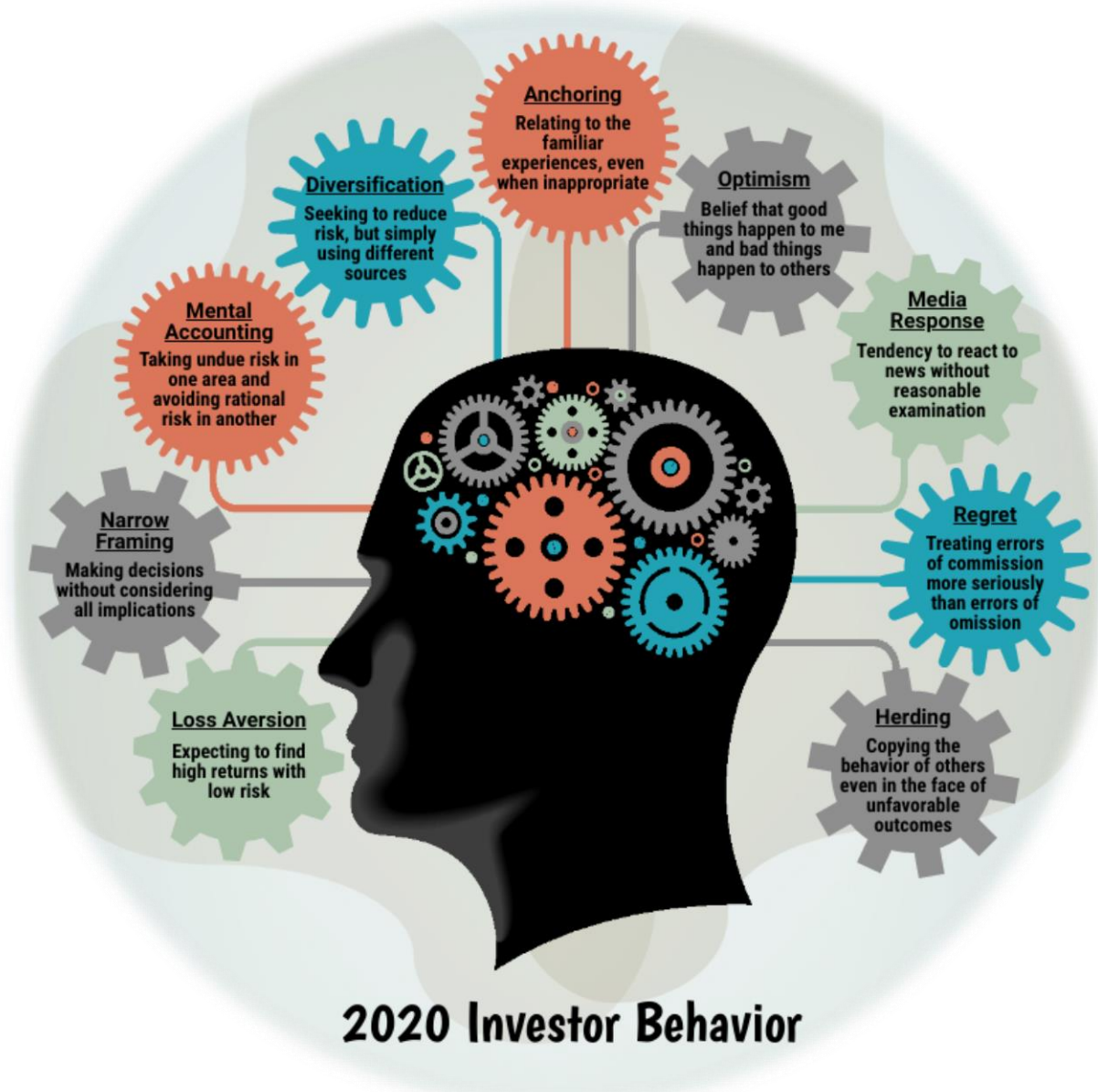
	Average Equity Fund Investor (%)	Average Fixed Income Fund Investor (%)	Average Asset Allocation Fund Investor (%)	S&P 500 (%)	Bloomberg- Barclays Aggregate Bond Index (%)	Inflation (%)
20 Year	4.25	0.47	2.54	6.06	5.03	2.14
10 Year	9.43	0.63	4.79	13.56	3.75	1.75
5 Year	7.79	0.35	3.88	11.70	3.05	1.82
3 Year	11.50	1.08	5.91	15.27	4.03	2.10
12 Month	26.14	4.62	15.36	31.49	8.72	2.29

## BEHIND THE NUMBERS...

# INVESTOR PSYCHOLOGY

When discussing investor behavior it is helpful to first understand the specific thoughts and actions that lead to poor decision-making. Investor behavior is not simply buying and selling at the wrong time, it is the psychological traps, triggers and misconceptions that cause investors to act irrationally. That irrationality leads to buying and selling at the wrong time, which leads to underperformance.

There are 9 distinct behaviors that tend to plague investors based on their personal experiences and unique personalities.





## Examining Investor Behavior Through Money Movements

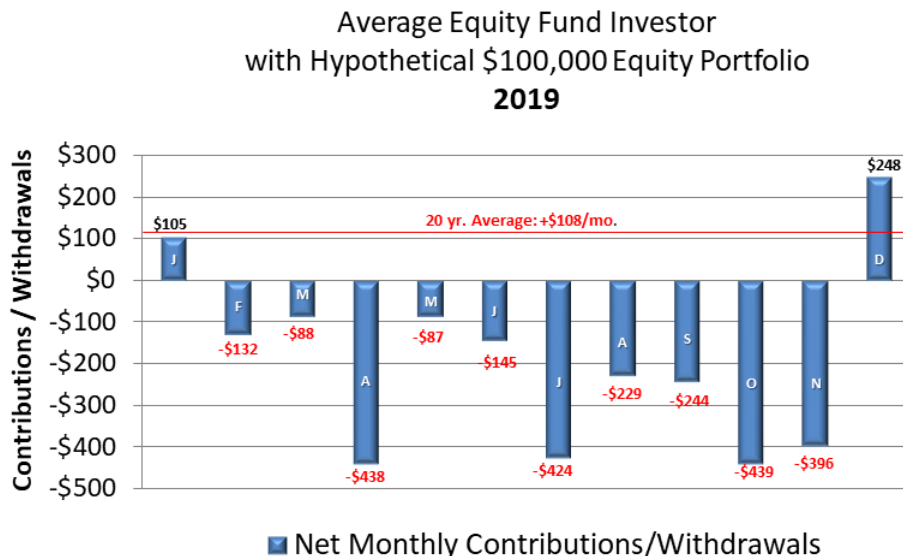
QAIB has historically examined investor money movement in two ways. The first way is to analyze the net inflow or outflow of cash as a percentage of total assets. When looking at the net flows of the Average Equity Fund Investor along with the Average Fixed Income Investor, we see how the Average Investor's appetite for equities and thus risk changes over time.

A second way that QAIB looks at money movement is through **retention rates**. Rather than looking at contributions to and withdrawals from the investment portfolio, retention rates capture the velocity of money movement, including exchanges among various funds. This measure does not so much speak to risk tolerance as it does overall patience versus performance chasing.

In 2019, the Average Investor had a consistent, if not incrementally decreasing appetite for equity exposure. At the same time the Average Investor exhibited patience within their investments that has not been seen in quite some time.

### Contribution/Withdrawal Analysis

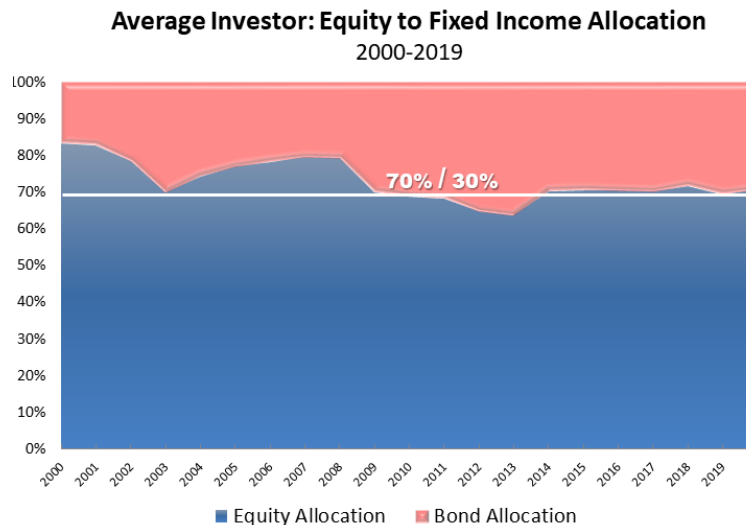
The Average Investor may have been attempting to decrease their equity exposure in 2019 but the rapid appreciation of their equity portfolio offset significant net outflows. The Average Equity Fund Investor with a hypothetical \$100K equity portfolio has contributed on average \$108 to that equity portfolio each month over the last 20 years. In 2019, the same Average Equity Fund Investor was a net withdrawer of \$1,980, or \$165 per month.





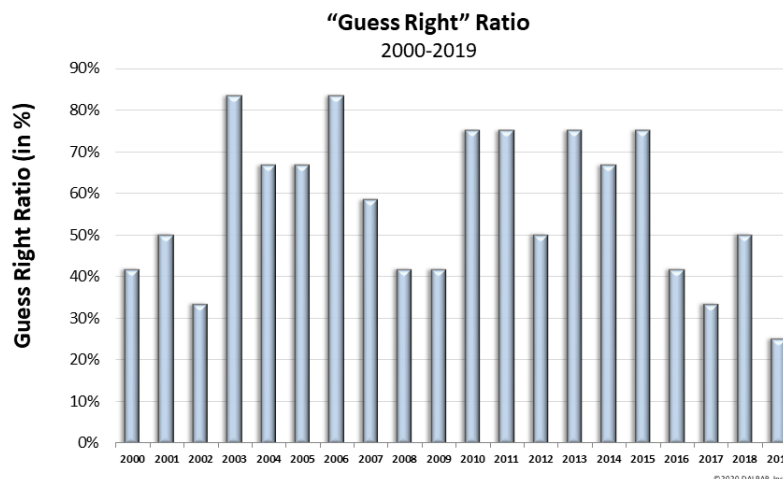
These withdrawals, along with historically high inflows of fixed income, led to the Average Investor maintaining a 70/30 equity to fixed income allocation, despite an appreciation of the equity portfolio of over 26%.

The graph below shows the equity to fixed income allocation of the Average Fund Investor over the past 20 years. Despite strong gains in most of the past few years, equity levels failed to reach levels before the dotcom crash and the crash of 2008.



## Market Timing

For 26 years, DALBAR has analyzed investors' market timing successes and failures through their net purchases and sales. This form of analysis, known as the Guess Right Ratio, examines fund inflows and outflows to determine how often investors correctly anticipate the direction of the market the following month. Investors guess right when a net inflow is followed by a market gain, or a net outflow is followed by a decline.



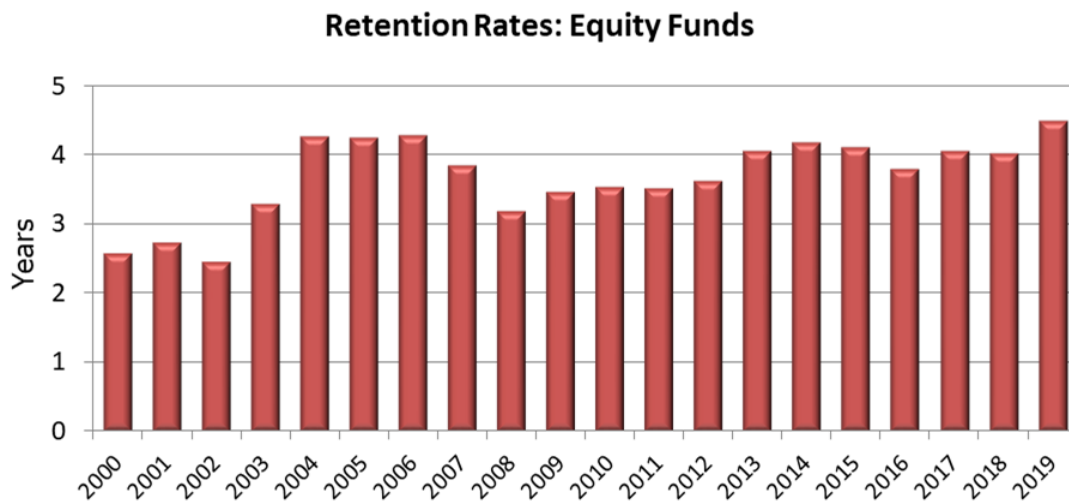
Investors have guessed right at least half the time in 12 out of the last 20 years, but guessed correctly right only 3 of the 12 months in 2019. Unfortunately for the Average Investor, whether they guess right or wrong, it seldom produces superior gains either way because the dollar volume of bad guesses exceeds the dollar volume of right guesses. Even one month of wrong guesses can wipe out several months of right ones.

## Retention Rates

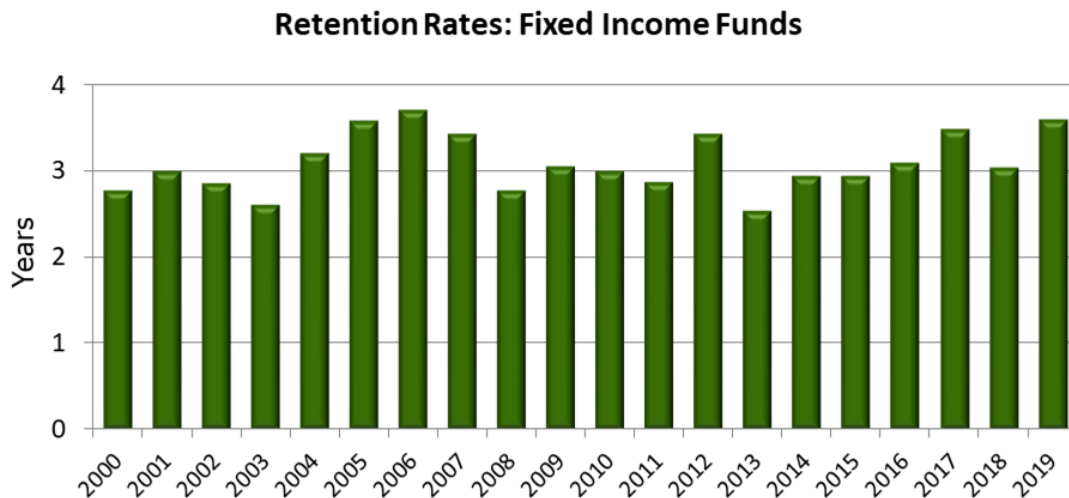
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Generally speaking, the Average Investor fails to stay invested in any given fund for a long enough period of time to realize the long-term benefits of asset ownership. Retention rates measure cash outflows in proportion to assets to arrive at the length of time the average investor holds a fund if the current redemption rate persists. Historically, Retention Rates increase when the market is rising and contract during market downturns.

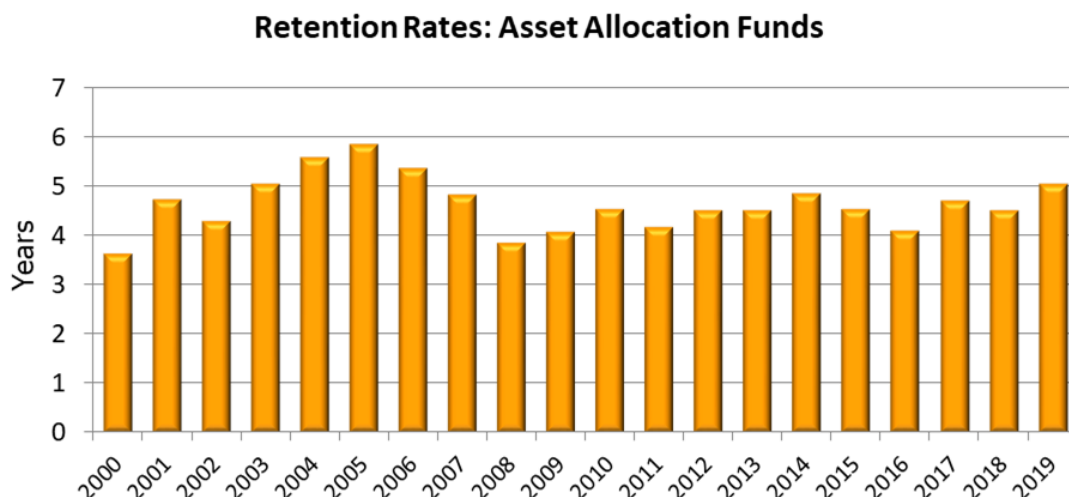
The Average Equity Fund Investor showed some resolve during 2018. While the equity markets pulled back a bit, Retention Rates held consistent. The Average Investor appeared to maintain confidence in their position while the S&P shed 4.38%. In 2019, the Average Equity Fund Investor was even more content to stay in current investments. Retention Rates increased in 2019 from 4 years 4.5 years. This was the highest Retention Rate ever recorded for the Average Equity Fund Investor, which dates back to 1985.



Retention Rates rose for all types of investors, including the Average Fixed Income and Asset Allocation Fund Investors. The Average Fixed Income Investor, who historically has the shortest Retention Rates, experienced a similar incremental increase to the Average Equity Fund Investor in 2019. Retention Rates increased by .56 years or over 6 months, from 3.04 to 3.60. This was the highest Retention Rate for the Average Fixed Income Fund Investor since 1991.



The Average Asset Allocation Fund Investor, who typically has the longest Retention Rates, increased their Retention Rates to over 5 years for the first time since 2006. Rates went from 4.52 in 2018 to 5.04 in 2019.



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For more information on creating a custom analysis or presentation using the QAIB data and methodology, contact Cory Clark at [cclark@dalbar.com](mailto:cclark@dalbar.com) or 617-624-7156.

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