2016 Edition

The Mutual Fund Fantasy

Do Mutual Funds Align with Your Retirement Goals?

The Mutual Fund Fantasy

The popularity of mutual funds in today's financial world is staggering. We are at a point in history where there are over three times as many mutual funds as there are companies traded on the New York Stock Exchange. Over 9,000 different choices with different names, different purposes, and different structures.

It appears that, to the majority, mutual funds are the most efficient way to invest for your future. That's why 24% of household financial assets are held in mutual funds and account for 55% of the average person's retirement[1]. It is clear that mutual funds have been chosen as the most popular vehicle for investors to reach their goals.

The question that troubles most investors is that with so many options, how do we know how to pick the right one?

There have been countless publications, newsletters, and entire businesses built off trying to determine which of the 9,000+ possible choices is the right mutual fund for your situation. Attempting to solve this issue is how many financial advisors make their living. It's a gigantic industry and down the line, everyone from the mutual fund manager to your financial advisor, is getting a cut and getting closer to their goals and dreams. The question is… are you?

ON AVERAGE 24% OF HOUSEHOLD ASSETS ARE INVESTED IN MUTUAL FUNDS[1]

Rather than asking the question which mutual fund is right for you; we ask the question, should you be investing in mutual funds at all?

In this white paper we examine this question from a number of different angles so you are able to examine your situation and answer the question confidently. It will break down the good, the bad, and the ugly, and will have no reservations about doing so.

What is a Mutual Fund?

Mutual funds first came about in America in 1929 and were developed as a way to pool investments. It was a time in which the American people were looking for a way to invest but didn't have large amounts of capital to do so. As a result, mutual funds were created as a way to combine resources into a central location. Those resources were then invested and profits and losses were split evenly based upon the individual's share of the pooled fund.

Since then, mutual funds have evolved while still keeping its origins intact. Today's mutual funds can make quite an attractive offer for investors:

1 2015 Investment Company Factbook, Investment Company Insitute

1. Pooling of Assets
Pooling assets is a way to maximize resources. A group of thirty people may only have $1,000 individually. That doesn't allow for very much diversification in investing. If we were to combine those thirty people and pool their accounts ($30,000 collectively) however, then the individuals could be invested more broadly.

2. Professional Management
The most substantial benefit that investors believe they are getting with mutual funds is professional management. In charge of each fund is an individual or team whose job is to research and invest client portfolios. Typically these managers are well respected and notable people within the industry.

3. Easy Access
Often times for investors, mutual funds offer the path of least resistance. They are so prevalent that many invest by default. When a company sponsored retirement plan has 50 different options and 48 of them are mutual funds, then deciding to invest in mutual funds becomes an easy choice.

Seven Reasons to Rethink Mutual Funds

For many investors, the benefits listed above make investing in mutual funds seem like a no-brainer. The investor gets professional management, diversification no matter the size of their account, and very few restrictions in gettting access to funds. When we get further into the specifics however, we see that investing in these funds is anything but a no-brainer.

THERE IS ONE THING THAT IS ALWAYS BLACK & WHITE, PERFORMANCE.

1. Performance: An Alarming Analysis

In the financial industry there are an abundance of grey areas and things clients are unsure of. For the average person it can be quite overwhelming. There is one thing that is always black and white however. Performance. In the end it is the only thing that matters. Your financial counsel could be the nicest guy in the world, could be best friends with your family, but in the end if you lose money every year, you most likely will not have a friendly business relationship. On the flip side, if your net worth grows exponentially every year and outperforms its benchmark, all the other details matter less and less. So which side do mutual funds fall into?

Multiple studies are published every year comparing mutual funds to their benchmarks based upon performance. Standard and Poor's, a company responsible for the creation of the S&P 500, releases a report called the SPIVA© Scorecard. It acts as a report card for the performance of investment funds compared to the

Report 1: Percentage of U.S. Equity Funds Outperformed by Benchmarks

Fund Category	Comparison Index	One-Year (%)	Three-Year (%)	Five-Year (%)	Ten-Year (%)
All Domestic Equity Funds	S&P Composite 1500®	63.57	62.02	78.36	75.02

Figure 1

S&P Indices. Funds are broken down and compared to their corresponding index. For instance, a small cap mutual fund will be compared to a small cap index. Figure 1 shows a snapshot of the scorecard.

Over a ten-year period, 76.54% of U.S. Equity mutual funds underperformed their benchmarks[2]. This is all calculated on just a pure performance basis. After fees and taxes are taken out, the results become even more dismal. Three quarters of mutual funds fail to beat the standards they set for themselves. This is not the end of the performance story however.

In a similar study DALBAR Research compares performance of the individual investor to the benchmark. Figure 2 shows the findings of this report. The average investor performs **7.4% worse than the S&P 500** from 1995-2014[3]. That's a difference of over 500% over 20 years on a compounded basis. **That's the difference between retiring with $200,000 or $1 million.**

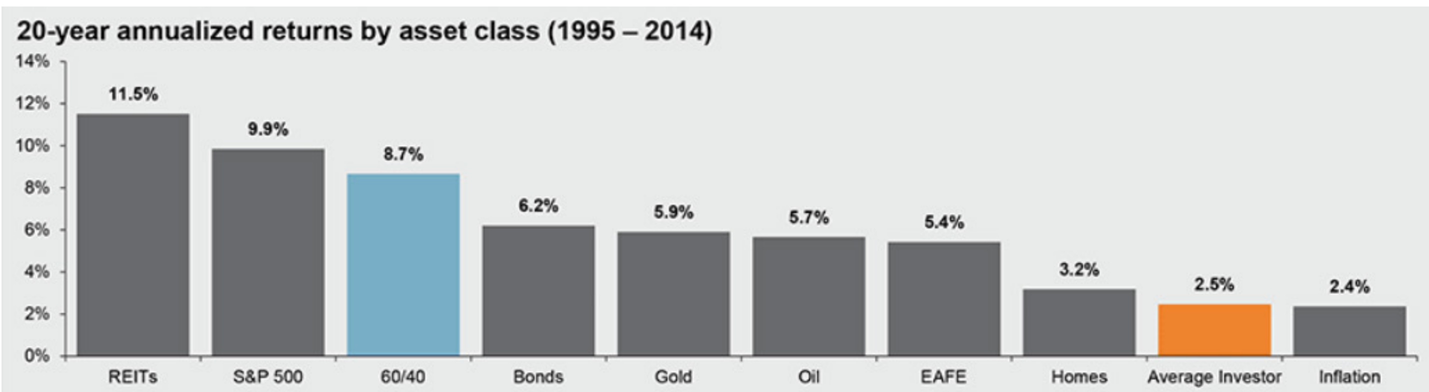

Figure 2

The underperformance of the individual investor is the result of more that one factor. Expenses become a big determinant of under-performance. If a mutual fund charged a fee of only 1%, according to the DALBAR study, the mutual fund would have to average 10.9% just for the individual investor to equal the S&P 500's performance. With over 75% of funds underperforming their benchmark, this becomes a difficult target to hit. We will touch more on expenses in the coming sections.

SINCE 1995, THE AVERAGE INVESTOR HAS PERFORMED JUST .1% BETTER THAN INFLATION

The final thing that investors need to be aware of when looking at performance is the effect of inflation. Inflation can be a variable from year to year but it's effect is constant. It is the steadiest destroyer of wealth. Inflation alone over the 20-year period of the DALBAR study averaged 2.4%. With the typical investor achieving just 2.5%, we can see that the investor is hardly breaking even.

There is a bias in life that is often referred to as the superiority illusion. It is a bias that gives us the illusion that we, ourselves, are above the average. Let me give an example. If there was a group of 50 people in a room and everyone was asked, "Who thinks they are an above average driver?", most people would raise their hand. Would you? How can it be that everyone thinks they're above average? It is

2 SPIVA© Mid-Year 2015 U.S. Scorecard, S&P Down Jones Indices
3 Guide to the Markets® U.S. 4Q 2014, J.P. Morgan Asset Management

statistically impossible for everyone to be above average. This is the superiority illusion.

When investing it is easy to look at the DALBAR study and think that you are easily doing better than the average investor. The problem is that most investors don't know how their investments are performing. Mutual funds do a great job masking poor performance and lead investors to believe they are on the right path towards their goals. The unfortunate reality could not be further from the truth.

2. Creative Accounting Works Against You

It is easy to look at the DALBAR and SPIVA© reports and think that your mutual funds are different. In actuality, mutual funds use creative accounting to mask poor performance. It all lies in statistics. Literally. By employing questionable statistical analysis, returns look better than they actually are.

Average Annual Returns

The first technique is to calculate returns on an average annual basis instead of using what we refer to as the true return. The true return has numerous names within the industry but is often referred to as the geometric return. The average annual basis calculation is pretty simple to understand. It takes the returns over a given time period and averages them. For most people this seems very intuitive. How should a given mutual fund perform year to year? Well, just average the performance of the last 20 years. It just makes sense. The problem is that annual averaging doesn't include the effects that compound interest has on returns. This is where the true return comes in. Note Figure 3.

	Hypothetical Portfolio
Starting Value	$100,000
-50% Loss	$50,000
+100% Gain	$100,000
-50% Loss	$50,000
+100% Gain	$100,000
End Result	0% Gain

Figure 3

In the example to the right, there would be a discrepancy between the average annual return and the true return. This is because of the effects of compound interest. When an investment loses money, it takes a greater return to get back to breakeven. The example in Figure 3 illustrates an investment that loses -50%. To get back to breakeven it needs to achieve a +100% return.

THE DIFFERENCE BETWEEN THE TRUE RETURN AND ANNUAL AVERAGE RETURN IS THE DIFFERENCE BETWEEN MAKING AND LOSING MONEY

The average annual return calculates these returns and shows,

(-50%+100%)= 50%
50%/2= 25% Average Annual Return

The true return alternatively shows,

Year 1: $100,000 x -50% = $50,000
Year 2: $50,000 x +100% = $100,000
True Return = 0%

Clearly the true return represents investor's situation the most accurately because it takes into account the impact of compound interest.

Mutual funds use this creative accounting to lure investors into thinking that they are doing better than they actually are. Using this technique, years like the Recession of 2008 appear to have a smaller impact on paper than in reality. In truth, your investments aren't in a better position, you aren't closer to your financial goals, and you are left with a false impression of the performance of your investments.

The Impact of Additions

The other factor that leads investors to think they are doing better than they actually are is the impact that additions or contributions have on their portfolio. Most prudent investors contribute to their retirement portfolios on a regular basis. For some this is once a year, for others this is monthly, etc.

As the additions stack up, it is easy for an investor to look at his/her statement once a quarter or once a year and think they are doing better than they are. They see their accounts grow from $100,000 to $110,000 but aren't taking into consideration that $6,000 of the growth is their yearly contribution. It is up to the investor to separate their contributions and the performance of the mutual fund to truly determine their actual return.

3. Bound By Prospectus Mandate

53% OF FUND MANAGERS DON'T INVEST IN THEIR OWN FUNDS

Every mutual fund is bound by a set of rules called a prospectus. A prospectus covers all the topics that are pertinent to investing, from important tax information, all the way to what the fees and expenses are. Within the prospectus, the fund manager must also define the investment objectives and strategies. By defining these, the fund manager is then bound by them.

On the surface this appears to work in favor of the investor. The mutual fund manager defines the strategies and objectives. Then, if the investor's objectives align with the mutual funds', it might make sense to invest. On the surface this gives the investor assurance that the manager will not deviate from the established plan.

The process of defining the investing strategy increases the inflexibility of the strategy however. For instance, prospectuses have to define a minimum percent of assets that must be invested at all times. Many funds set this at a minimum of 60% or higher. This means that if you own a large cap mutual fund, it must always be at least 60% invested in large cap stocks. So even in years like the recession of 2008, when the market dropped over 50% at one point, that mutual fund would very likely feel ***at least*** 60% of that loss.

Prospectuses appear to hamper fund managers so much that they don't eat their own cooking. A study released by Morningstar found that only 47% of fund managers actually invest in the funds that they run[4]. The managers simply lack confidence. So if the people running the fund don't have confidence, why would you?

4. Fees, Fees, and More Fees

Often times when discussing client's investment plans, the two most alarming topics that are brought up are performance and fees. Every mutual fund charges a fee to run the fund. This expense covers many costs of the mutual fund such as a management fee, administrative fees, and others. When I ask most clients what their mutual funds are charging as a fee, the response is usually whatever the expense ratio is.

The expense ratio is the most marketed and well known fee associated with mutual funds. These fees can range anywhere from 0-2.5% with the average being 1.25% per year[5]. The expense ratio however, is just one layer of the fees. The majority of this fee is paid to the fund manager and covers some administrative cost.

All expenses can be broken down into stated and non-stated costs. Stated costs are the costs laid out in the prospectus. These include the expense ratio and the load of the fund. The load of the fund is most often the upfront or backend cost you pay for gaining access to that fund. This cost can be as expensive as 5.75% of your account. This is taken right off the top, before any services are actually provided. This fee goes to the financial advisor who sold you the fund.

The second type of fees are the unstated fees. These are typically fees that clients aren't aware of. For instance, every mutual fund has transactional costs that are associated with buying investment securities. If a mutual fund buys stock XYZ for your portfolio, there is a cost to complete that transaction. These costs are generally passed on to the investor.

A study by Edelen, Evans, and Kadlec found U.S. stock mutual funds average 1.44% in transaction costs per year[6]. This fee is not disclosed in the prospectus and can be almost impossible to calculate individually.

Potential Cost of Mutual Funds

Up Front Fee:

0-5.75%

Financial Advisor's Cut

On Going Fee:

0-2.5%

Fund Management's Cut

Hidden Costs:

0-2%

Transaction Costs
Cash Drag
12b-1 Fees

Figure 4

An additional unstated cost of investing in a mutual fund is the cash drag on the fund. Cash is frequently held by mutual funds to maintain liquidity for investors. This liquidity is kept in case of redemptions and transaction costs. That means that if you are an investor in mutual funds, part of your money will be held as cash in the fund, doing absolutely nothing. It is not being professionally managed but yet you are still paying fees as if it is. A study done by

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4 "Do Managers Eat Their Own Cooking?", Morningstar Research

5 2015 Investment Company Factbook, Investment Company Insitute

6 Roger Edelen, Richard Evans, and Gregorey Kadlec. *Scale Effects in Mutual Fund Performance: The Role of Trading Costs*

William O'Reilly and Michael Preisano found that the cash drag for large cap stock mutual funds over a 10-time horizon was 0.83%[7].

Taxes are another variable cost that can weigh heavily on investors. For those who invest in mutual funds outside of a qualified-tax plan, Uncle Sam takes his cut at the end of every year.

The final fee that is almost never talked about is the cost associated with buy and hold investing. Investors like John Bogle, founder of Vanguard Funds, are huge proponents of "buying the index" and paying almost nothing in management fees. In his opinion an investor's best strategy is to buy a fund that mimics the performance of an index like the S&P 500.

However, one of the biggest understated fees that we see is with the impact of market downturns. Since 2000 the S&P 500 has had two major downturns both resulting in -50% or greater declines. A buy and hold investor would feel both of those declines to the fullest extent. So rather than paying a quality manager every year for his services, the investor pays Mr. Market during every downturn.

A FINANCIAL TEAM THAT COMBINES PERFORMANCE WITH SOUND GUIDANCE IS WORTH EVERY PENNY

Many investors will dismiss this understated fee because market downturns are often percieved as a "cost of doing business". Like other fees however, it is a potentially avoidable drag on your investment returns. It is for this reason that we include this as an understated fee.

In summary, when reviewing potential costs of mutual funds in Figure 4 it is apparent that fees can add up quickly.

Taking the industry average of all stated and unstated fees we find that **the average mutual fund owner will lose 3.52% per year to fees[8]**. This does not include any tax liability that may also be accrued. This is also excluding any load that the fund may charge as well as any drag that a market downturn may have on a portfolio.

Although this section is critical of fees; fees are not always a bad thing for investors. Like any industry, fees are earned and a financial team that combines performance with sound guidance is worth every penny. The important part as an investor is analyzing your current situation and financial plan to determine whether you are on the right path. If not, you need to take steps to get your financial plan congruent with your goals.

5. Survivorship Bias in Mutual Fund Returns

When looking at historical returns of a mutual fund it is important to understand that there is an innate bias associated called the survivorship bias. The survivorship bias in the case of mutual funds is the tendency for mutual funds to drop poor performing funds from their platforms and keep the "successful" funds going

7 William O'Rielly and Michael Preisano. *Dealing with the Active*

8 Industry average includes the average transaction fee, cash drag, and expense ratio previously disclosed

forward. This translates to an overestimation of past results for investors because we are only looking at the funds that survived.

Let's explain this bias by using an example. A mutual fund company named Average Investments launches three new funds to the public, Fund A, B, and C. All of these funds have the same risk profile and should have similar expected results.

After 5 years the performance is:

Fund A: +8% Per Year
Fund B: +6% Per year
Fund C: +2% Per Year

Because of the poor performance, Average Investments closes down Fund C. Funds A and B are both performing satisfactory so Average Investments will continue to market these funds to the public.

FUNDS THAT HAVE PERFORMED WELL IN THE PAST GIVE LITTLE INDICATION OF FUTURE PERFORMANCE

An investor looking at these funds after this 5-year period will only see the performance of Fund A and B because Fund C was shut down. Because of this there will be an overoptimistic view of Average Investments' performance. The reality is that investors were still invested in Fund C and were still hurt by underperformance. What happens if Fund B starts underperforming and takes a path similar to Fund C? It most likely will be shut down so that Average Investments can still portray successful results.

The question arises as to how common this occurrence is. A study done by Vanguard Group reports that approximately 7% of mutual funds "die" each year. Of the funds with a 5-star rating as rated by Morningstar in 2004, 20% did not survive the next decade. These are considered to be the "top" funds in the industry and 20% didn't even make it out of the decade! From 1997-2011, 54% of mutual funds were closed down or merged with another company. The leading cause of fund closure was poor investment performance.[9]

The survivorship bias can weigh heavily on investors. Because performance reporting has this bias, we expect the percentage of fund managers underperforming the market is even greater than the SPIVA© Scorecard may suggest.

6. Industry Inconsistency

When deciding which mutual funds are right for the investor's financial plan, the most common strategy is to pick what has performed well historically. This makes sense. If a certain fund manager has outperformed their benchmark over the last 5 years, it is logical to assume this trend will continue. History shows us though, that this logic has some major holes.

9 The Mutual Fund Graveyard: An Analysis of Dead Funds. Vanguard Group

BECAUSE THE MARKETS ARE A ZERO SUM GAME, YOU CANNOT DO WHAT EVERYONE ELSE IS DOING AND STILL ADD VALUE. YOU MUST INVEST DIFFERENTLY

Vanguard Group performed a study quantifying this idea of performance chasing. The study compared the performance of the top funds over a 3 year rolling period versus a buy and hold approach. What they found is investing in the best performing funds of the last three years underperformed holding the same mutual funds on average by -2.7%[10].

A similar study by Vanguard also found that performance ratings only show funds that have performed well in the past and give little indication for future performance. This study found that funds with Morningstar ratings of 1, 2, 3, 4, and 5 stars (the highest rating they give) all performed within a narrow range that showed no statistically significant difference[11].

Since historical fund performance cannot be used as a reasonable benchmark for future fund performance, it becomes increasingly difficult for investor's to make confident decisions for which funds will fit into their financial plan the best.

7. Investing in a Zero Sum Game

The final thing that investors need to be aware of is that the financial markets are stacked against you. Not just in mutual funds, not just in stocks, but in every nook and cranny of the market. The financial markets are built upon the premise of a zero sum game. A zero sum game is where the gains by one party are balanced by the losses of another. Every transaction is a trade off. In the financial markets, every buyer for stock XYZ has to be matched by a seller for XYZ. When one investor makes $1 another investor or group of investors loses $1.

This represents an interesting dynamic for investors. Ray Dalio, founder of the largest hedge fund in the world explains this dilemma for investors very eloquently. He says, "[Investors] invest in a zero sum game. By definition that means that [investors] can't follow the consensus and still add value". What he is saying is when it comes to investing, doing what everyone else does will bring the same results as everyone else.

The equation for outperforming the benchmark is actually very simple then. **You must invest differently then the rest of the marketplace.** As shown earlier, mutual funds account for 55% of the average person's retirement portfolio. Mutual funds are what the consensus uses to invest. Performance results continually, year in and year out, back up this notion. Frankly its not working.

Investors are now left with two choices; trusting their futures with mutual funds or deciding that mutual funds are not going to take them to their goals. Will we continue to accept mediocre performance or will we choose to invest differently? To choose a better a future?

10 Quantifying the Impact of Chasing Fund Performance. Vanguard Group
11 Mutual Fund Ratings and Future Performance, Vanguard Group

Are Mutual Funds the Right Choice for My Goals?

Take a minute to think about this question. Think about where you want to be financially in 10, 20, 30 years from now. Take into consideration what kind of lifestyle you want to have, what kind of life you want to have lived getting to that point, and what the dollar amount it will take to get there.

Often times, financial plans are developed on the premise of give and take. Do we sacrifice financially now? Give up the family vacations, spend less on Christmas every year, and put some dreams on the back burner so that one day there might be a chance we can have our dream retirement. Or do we live life to the fullest now? Take those vacations, make the amazing memories, and live the life you work so hard to create. Most families when planning for their future financially wrestle with this question year in year out.

About the Author

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Eric Sajdak is a Partner at Fox River Capital and heads its investment and research division. Eric has been managing client portfolios and preparing investment research since high school. Prior to working at Fox River Capital, he worked in the financial planning division for a Fortune 500 company. Outside of the office, you can find Eric competing in endurance sports, hitting up the slopes, or watching the Packers. Eric currently lives in Appleton, Wisconsin.

Make sure your investments fit into your financial plan
Take a moment to consider which of these statements apply to you:

- ☐ I want to understand what the performance of my portfolio has truly been
- ☐ I want to know how much my portfolio is costing me each year
- ☐ I need a clearer picture of what my financial plan is
- ☐ I want a better vehicle for investing

If you checked any of the boxes above, contact the Fox River Capital team for an unbiased analysis of your financial plan and situation.

Recieve a complimentary customized financial appraisal by submitting your mutual fund portfolio to:

Fox River Capital
Contact@FoxRiverCapital.com
(920) 843-1890

If you enjoyed this in depth analysis of this paper you can find more research and resources at:

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