Passive vs. Active Management: A 14-Year Comparative Analysis of Net Returns and Market Efficiency

Samridh Rangineni

Abstract

Passive and active funds are essential components of modern investing because they offer approaches that cater to different investor goals, risk tolerances, and market conditions. Passive funds provide low-cost, broad market exposure, while active funds offer the potential to outperform the market through skilled management. Historically, the market favored active funds over their passive counterparts (Wharton Executive Education, n.d.). Today, however, the market has seen a significant shift towards the passive segment, a usage rate that has never been this high (S&P Dow Jones Indices, n.d.). The results show that, while active funds occasionally outperform in certain years (Raymond James, 2025), passive funds consistently generate higher long-term returns, with an advantage of roughly five percentage points over the review period (Morningstar, 2024). This paper addresses a central research question: over 14 years, do passively managed funds deliver higher net returns than actively managed funds, once fees are taken into account? Using a dataset of 20 widely held funds, this study analyzes compounded annual growth rates and compares the performance of the most popular actively and passively managed portfolios. For investors, this finding implies that low-cost, passively managed funds may offer a more reliable path to long-term wealth growth than higher-fee active strategies (Vanguard Group, 2024), even before considering additional portfolio decisions such as diversification, market timing, or usage of alternative assets like cryptocurrency (Karpov & Myalo, 2024).

Introduction

I.

The financial world is evolving significantly, particularly in the passive segment, moving past its traditional focus on older methods. This shift suggests that market dynamics and strategies may not have been the same as they once were. In 2023, passively managed funds surpassed actively managed ones for the first time, marking a significant shift in how people view their money (Morningstar, 2024). Why do funds that are simply tracking the market outperform the norm of investing? The literature generally shows that passively managed funds outperform actively managed funds over long-term periods once fees and taxes are taken into account (S&P Dow Jones Indices, n.d.). Many studies argue that lower fees, higher market efficiency, and the tax advantages associated with buy-and-hold strategies are the primary drivers of this performance gap (Vanguard Group, 2024). However, there is still disagreement over which active managers can add value in certain examples, such as during periods of high market volatility, in less efficient market segments, or through specialized strategies (Abrantes, 2017). This paper treats these points as questions rather than assumptions: it tests whether, over 14 years, passively managed funds deliver higher net returns than actively managed funds after fees

(Chinco & Foss, 2022), examines whether any performance differences are highlighted in particular years or conditions (Raymond James, 2025), and analyzes how much of the observed gap can be attributed to factors such as fees, diversification, and market efficiency (Neuberger Berman, n.d.).

The claim will be tested using data gathered from reliable sources, and the deeper reason why passive funds are better will be explored. Additionally, alternative investments will be presented as a control to demonstrate that there are options for investing beyond actively and passively managed funds. The inclusion of cryptocurrency as an asset class will offer a contrasting view on how other asset classes will compare to the fund classes we are examining in the paper (Karpov & Myalo, 2024). Different asset classes will support the research question of "Why do funds that are simply tracking the market outperform the norm of investing?" by showing newer, updated assets that provide a surrogate choice. In the end, the superior fund will be evident through research and data, with the top performer being determined by market returns.

Literature Review
II.

The debate on whether active or passive management is better has been ongoing for years among various institutions. Examining articles on this topic reveals an underlying pattern that consistently points to the strengths of the passive approach (Wharton Executive Education, n.d.). After reviewing multiple sources, passive management generally has a superior performance over the long run, especially when accounting for total costs (Pettit, n.d.). Many financial experts, including Warren Buffett and John Bogle, have repeatedly emphasized that long-term investing success often comes from patience and low costs, not from frequent trading or complex strategies designed to outperform the market in the short term. Results from the SPIVA research programs show that 88.24% of mutual funds perform worse than the S&P 500, and only 11.71% perform slightly better in a period of 15 years (S&P Dow Jones Indices, n.d.).

In their 2024/2025 report, Morningstar found that their investors lost approximately 15% of their potential returns, about 1.2% annually, due to frequent trading and poor timing (Ptak, 2024). The report proves that all-in-one funds like the Target Date Funds have small gaps because of the automated rebalancing and complex strategies, often looked upon as emotional trading. A calculation from Vanguard shows that over a 30 year horizon, an investor with a 0.1% cost ratio would end up with $140,000+ more than an investor with a 0.7% cost ratio, even if the investments performed identically (Vanguard Group, 2024).

Looking at the variety of papers on passive and active management, one can see an underlying theme: the trade-off between trusting human skill to beat the market and relying on the market's efficiency to deliver steady returns (Chinco & Foss, 2022). Although passive management sounds great and is often the norm for the new-age investor, some sources also point out that active management can have its advantages in certain areas, such as special markets or times of price fluctuations, where skilled managers might identify short-term opportunities (Abrantes, 2017). However, even in these cases, the majority of studies suggest that it’s difficult for active managers to consistently outperform the market after fees and taxes are included in the calculation (Ferreira & Matos, 2022). Overall, the trend across the sources points toward passive management as the popular and more effective long-term choice for building wealth.

Passive management is superior to active management for many reasons that directly affect the net returns an investor receives. The simplicity of passively managed funds is also a big factor for people who are new to investing or lack extensive financial knowledge. Most of the people who are new to the market require simple and effective methods that don't require constant monitoring. That's where passive funds come in. Recent survey data from 2024 and 2025 indicate that more than 48% of Americans have no type of investment, suggesting a need for simpler funds for individuals seeking to build a safety net for their future or establish a fallback plan for emergencies. Passive funds are easier for people with limited financial resources and knowledge because they automate the investment process (Russell Investments, 2024).

Diversification is also a big factor in many people's portfolios. "Diversification is protection against ignorance. It makes very little sense for those who know what they're doing." This statement from Warren Buffett shows how diversification is a key strategy in many people's portfolios, helping to spread risk. In passive funds, diversification is simpler because the market tracks top-performing stocks and compiles them into one package for investors (Neuberger Berman, n.d.). Looking ahead, people are investing in a variety of passive funds across more market segments, ensuring broad exposure. For example, people could buy one fund that tracks a US market and another that tracks a different country's exchange, which promotes effective diversification with minimal effort.

The most frequent and biggest reason why passive management has a primary advantage is fees. This difference in cost creates a substantial hurdle that active funds must overcome every year (The Joe Raissi Team, 2025). Most actively managed funds charge fees ranging from 1% to 3% for managing a portfolio, while passive funds charge only up to 0.25%. Some funds are even as low as 0.03%, making the cost difference substantial. This may not seem like a big difference in a single year, but if someone looks at the data, people can clearly see how much of a difference it makes over decades of investing. For example, if a person invested $10,000 in the T. Rowe Price TCAF actively managed funds, they would receive anywhere from $31,000 to $33,000 after 20 years. Every dollar paid in fees is a dollar that cannot make you money in the upcoming year. While a 1% or a 0.5% may seem negligible in a single year, the long term impact is magnified by compounding. This creates a widening wealth gap between high-cost active funds and low-cost passive funds (Vanguard Group, 2024).

This difference builds up exponentially, and progress towards your money target can easily be lost during years when the market is flat or down. This is because, no matter what, the fees will always be taken out of your account, even during a bad year for the market. Hypothetically, if the funds had lower fees or almost no fees, they could increase anywhere from $36,000 to $38,000. Looking at these two, anyone can see a big difference between them, entirely due to the fees charged. Data from several papers show that even small differences in annual fees can lead to large gaps in total returns over decades (Ptak, 2024). If they looked further and saw what would happen if they invested $50,000 over the same period, they would see a $23,000 difference in their final balance from fees alone. Let's take the Goldman Sachs GUSA; this fund had an average annual return of 10.95%, only 0.84% less than the T. Rowe actively managed fund. What's surprising is the difference in price with the same $10,000 investment over 20 years. The Goldman Sachs GUSA is accumulating almost $89,000, which is significantly higher than the T.Rowe TCAF because the difference in fees builds up over time. This makes passive investing not only cost-efficient but also geared towards people who want to grow their wealth steadily without constantly monitoring the market.

The other benefit of passive funds is that they are significantly more tax-efficient than actively managed funds. This is a critical factor because lower taxes are directly linked to a larger amount of money that can be reinvested. Since people buy and hold passive funds, there are fewer events to tax on because the fund only sells securities when the index changes. Actively managed funds are constantly buying and selling, or engaging in high turnover, meaning that there are higher frequencies of taxable events every year as they realize capital gains, which are then passed on to the investor. “Active funds usually have higher fees but offer different investment opportunities, while passive funds usually offer lower fees and attempt to lower taxable gains and losses by trading less often” (The Joe Raissi Team, 2025). This quote from the research clearly shows that passively managed funds are generally less taxable, making them a better choice for funds held in taxable accounts.

One last key takeaway is that passive funds align more with the newer investors because of their ease of use, lower cost, and built-in diversification. Most of the people who are new to the market want something simple and effective that they can understand and rely on for the long haul. That's where passive funds come in. Although the debate continues, the empirical evidence strongly favors passive investing. In theory, passive management appears preferable to active management due to these structural advantages, but it will be tested by compiling data and analyzing results from actual market performance.

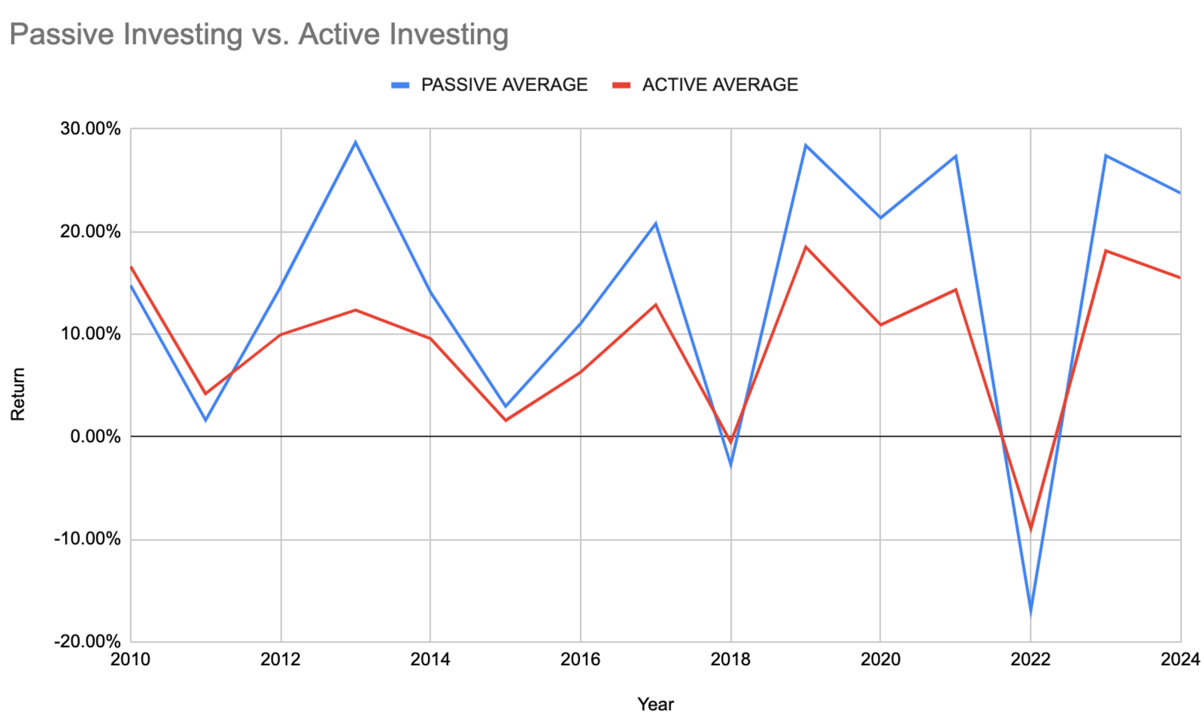
Methodology
III.

To analyze whether passive management or active management performed better, a chart was constructed. Data was gathered from online research and well-known financial stock trackers such as Yahoo and Google Finance, as well as from direct data on the fund websites. CAGR was used as the primary form of averaging the returns over the 14 year period. It is significantly better than other calculations due to how most funds are structured in a way that showcases the annual returns (Vanguard Group, 2024).

The funds selected were chosen based on three factors: reliability, efficiency, and popularity. Funds were chosen that were known for their performance and efficiency for long-term investing (Morningstar, 2024). Funds were selected based on the number of active users as well. The year the funds were released was not an important factor for the selection criteria, but it could differ from future studies with a higher concentration of long-term data (S&P Dow Jones Indices, n.d.).

The data was then organized into two sections with ten of the most well-known stocks of their respective category. There were 10 stocks in the passive section and 10 in the active section. These funds were selected to best represent their category (Russell Investments, 2024). Some funds did not have the full 14 years, so they were recorded from the year they were released. The stocks were then recorded, with the last 14 years of annual returns recorded in the dataset. After all the data had been collected, the total annual returns were calculated using a CAGR for 2010-2024. The annual return was taken from each fund for the respective period. After that, the average was added to the CAGR. Once all funds had been averaged, the CAGRs of all funds were represented by a single average (Chinco & Foss, 2022). In the end, the data set was incorporated into a graph. The graph showed how the passively managed funds compared to the actively managed funds (The Joe Raissi Team, 2025).

Results
IV.



In this section, it is shown what occurred after all results had been formulated into data charts. The only years in which actively managed funds outperformed passive funds were 2011, 2018, and 2022 (Raymond James, 2025). The passively managed funds had a five percent average lead over the actively managed funds, an enormous difference given the compounding losses over 14 years (S&P Dow Jones Indices, n.d.).

Looking back at the dataset, the highest-performing active fund was the YieldMax TLSY, with a CAGR from 2010-2025 of 17.18%. Doing the same to the passive funds, the highest performing fund was the Invesco QQQ, with a CAGR from 2010 to 2025 of 20.62%. On the contrary, the lowest-performing stock among actively managed funds was the JPMorgan Global Bond Opportunities Fund, with a CAGR from 2010 to 2025 of 2.99%. For the passively managed funds, it was the Goldman Sachs GUSA. This fund had a CAGR from 2010 to 2025 of 10.95% (Morningstar, 2024).

Looking back at the chart, both funds increased and decreased simultaneously. If the active funds did not have a fee, this chart could look different (Vanguard Group, 2024). Based on the 14-year accumulation period and with a 1 percent fee, the investor could have expected a difference of almost 8,143.57 dollars if they invested 10,000 with an annual return of 15% (The Joe Raissi Team, 2025). After comprehensive research, it has been concluded that passively managed funds outperformed actively managed funds most of the time (Pettit, n.d.).

Discussion
V.

The passively managed funds yielded higher returns compared to the actively managed funds. Looking back at the literature review, many of the papers were accurate with their findings (Wharton Executive Education, n.d.). On the other hand, if a person invested in an active fund and bought and sold at the right times, it could have performed better than a passive fund bought and sold at different times (Abrantes, 2017). For example, if an investor purchased an active fund in 2011 and sold it in 2017, they would have made significantly more money than someone who bought in 2013 and sold in 2022.

Most authors were on the passive side; only a few others supported actively managed funds (S&P Dow Jones Indices, n.d.). If purchased at the right time, an actively managed fund can outperform a passively managed fund, but that goes both ways. Purchasing a passively managed fund at the right time can result in significantly greater profits compared to investing in actively managed funds. This is because in a passively managed fund, there are fewer fees, which lowers the return. Some limits that this data might have are that some of the stock tracking websites are likely to have been generalized to align with the market more than the company itself. People also have to consider the fact that some of the stocks have different variations based on the investor, and that the shown price fluctuations might have been the average of the variations (Chinco & Foss, 2022).

The discussion around timing, however, brings us to the inherent challenge in evaluating the effectiveness of active versus passive strategies: risk versus reward. While the urge for superior returns through skillful timing exists, relying on this strategy, either with an active or passive fund, introduces high risk (Ptak, 2024). The main benefit of passive investing, as the data show, is that it eliminates the need for constant, stressful market monitoring. People can capture the average market return, which, as our study shows, is a return significantly higher than what the average actively managed fund delivers after fees (Pettit, n.d.).

This leads us to consider not just the raw performance data but also the flaws in the active management model that prevent consistent, long-term outperformance. The main reason for the passive victory, as shown throughout our analysis, is not necessarily a lack of skill among active managers but rather the impediment posed by high fees and trading costs (Ferreira & Matos, 2022). The data is clear: even if a fund manager has a remarkable year, the 1% to 3% annual fee they charge acts as a heavy anchor, dragging the final net return below that of a nearly free index fund (The Joe Raissi Team, 2025). This reality directly supports the literature review's emphasis on cost and efficiency as the determinants of long-term success (Vanguard Group, 2024). Let's explore in more detail how these structural issues accumulate over time, creating a situation in which active management is unnecessary for most investors.

For long-term investors, the concepts of compounding and volatility drag are essential to consider. Compounding allows investments to grow over time, as earnings generate more earnings (Vanguard Group, 2024). This puts a spotlight on the importance of a long-term view, where staying invested can significantly boost wealth.

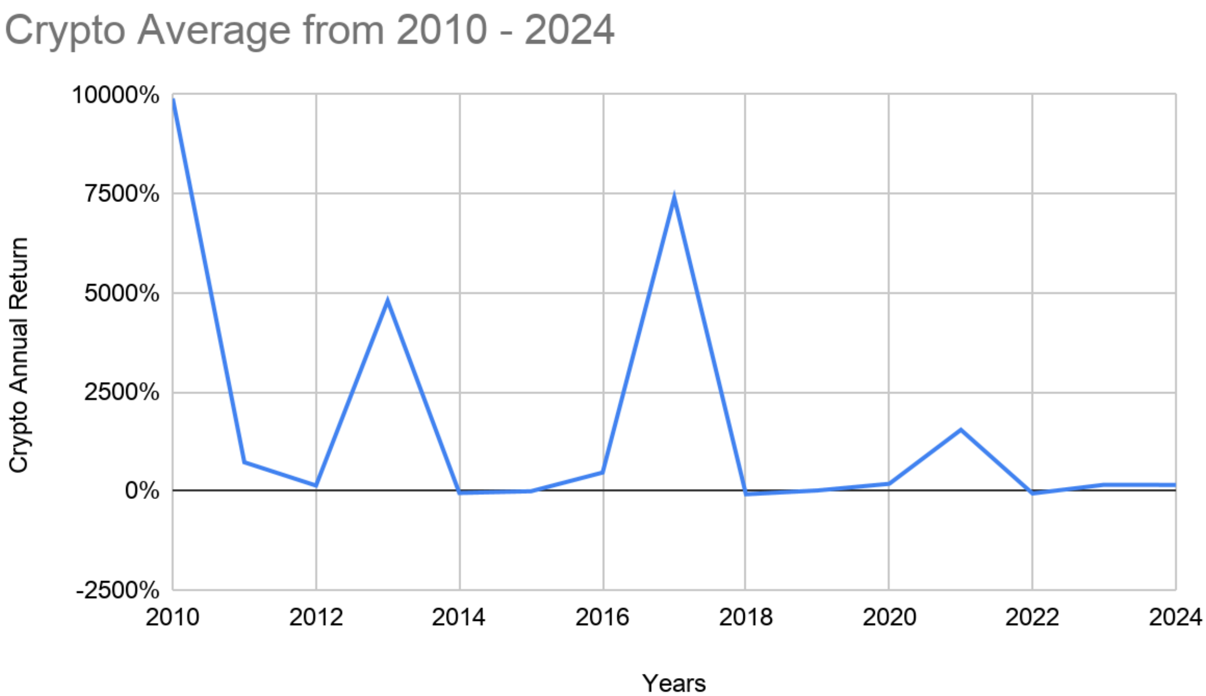
On the other hand, volatility drag can take a toll on returns. When markets fluctuate, the losses can offset gains, meaning that a price drop requires a larger increase to regain the lost value (Neuberger Berman, n.d.). This shows that patience and a long-term approach are key. By focusing on long-term growth, investors can make the most of compounding while reducing the negative impact of volatility, ultimately strengthening their investment strategy. Using that mindset, people can invest in the index fund and let it grow for as long as they require.

Active management, however, will slowly cut down the full potential of that money. The “small fee” they charge can account for almost 30% of the projected growth without the fee (Vanguard Group, 2024). For the average investor, they usually want their money to be secure and low-risk. In examining the performance of active managers compared to passive investors, our findings show a clear trend that aligns with our original research question. The data indicate that passive funds not only tend to deliver better long-term returns but also exhibit lower volatility, particularly during market downturns (Raymond James, 2025). This evidence strengthens the argument that the market efficiency perspective, which supports passive investment strategies, may provide a more stable structure for investors (Bond & Garcia, 2024). Furthermore, the analysis of various asset allocation strategies shows that actively managed portfolios often charge higher fees and carry greater risk without significantly outperforming passive funds (Russell Investments, 2024). Thus, our investigation shines a light on the critical importance of asset allocation on investment performance, reinforcing the feeling that passive management can be a better approach for long-term financial success.

Beyond Passive vs. Active VI.

The data gathered only shows returns for passive and active management. There is, however, another data chart that was compiled from a set of the 10 best-performing crypto stocks. This was done because people need to see not only the small pond of active and passive management, but also the broader ocean of diversification. Nobel Prize-winning Harry Markowitz, a contributor to the Modern Portfolio Theory, famously said, "Diversification is the only free lunch in investing" (Markowitz, 1952). The quote illustrates how diversification is one of the easiest ways to boost annual returns, as well as the overall security of the portfolio (Ferreira & Matos, 2022).

That’s why passive income funds are so good; they spread investments across a wide variety of stocks, which lowers the risk of losing money. Even still, this level of diversification might not be the fullest extent of what can be achieved. Investors possess a plethora of options other than just stocks. For example, options to invest in are Bonds, Gold and Silver, Real Estate, and last but not least, Crypto. For the time being, Crypto is one of the newest asset classes, where investors can either stand to gain generational wealth or lose money that could have been invested in better ways (Karpov & Myalo, 2024). Crypto is a highly controversial topic, as some people have earned millions from it. However, the data shows that it is also very easy and highly likely to miss opportunities.



The graph shows how volatile the cryptocurrencies are. For example, in 2016, if someone invested $1,000 into the top ten cryptocurrencies, their portfolio would grow to $73,950. If they held on to that portfolio for one more year, though, their portfolio would rapidly shrink to $11,092.50. This is still a relative gain to the original capital investment, but it is a major loss. If the investor had bought high in 2017, he would have stood to lose a significant amount of money, depending on the original investment. The losses could range from 100 dollars for casual investors to millions for serious buyers and larger firms. On the flip side, there is significant growth in certain years, with astronomically high annual returns.

In 2010, the annual return was approximately 9,900%, a guaranteed portfolio booster. Take a look at certain stocks in particular, such as Bitcoin (BTC), which had a CAGR 2010-2024 of 1,272%, or Solana (SOL), showing a CAGR 2010-2024 of 2,435.44% (Karpov & Myalo, 2024). Investors can see the potential in cryptocurrencies. The interesting details of Cryptocurrencies and what draws people in is how they can be associated with winning the lottery. Much like the common stock a company will issue, portfolio gain with only a single stock is a very much a hit-or-miss scenario. It is possible to strike gold and instantly gain wealth, or lose thousands, if not millions, betting on the wrong stock.

In the end, it all comes back down to diversification; without it, portfolios would be near impossible to help grow wealth. This is why, even though certain stocks like BTC or SOL can make a lot of money in a short 10-year span, it is tough to predict and find stocks like these. Passive investing is the best way to invest, as it provides a safe yet efficient way to invest (Vanguard Group, 2024). Of course, other asset classes are recommended to be purchased to further promote diversification, which is the key principle in most successful portfolios (Abrantes, 2017).

Investing in just one asset class, let alone putting everything into one stock, is not recommended for the average investor. The best portfolios will have asset classes that together form a highly diversified and efficient portfolio. For a more aggressive portfolio, it might look something like 60% in stocks, 30% in bonds, 5% in valuables such as gold and silver, and 5% in cryptocurrencies or real estate. A less aggressive portfolio can look like 60% bonds, 30% in stocks, 5% in valuables such as gold and silver, and another 5% in cryptocurrencies or real estate (Russell Investments, 2024).

In the end, it boils down to risk tolerance and age. The best way to test risk tolerance, as once said by Tony Robbins in his book *Money: Master the Game*, is to play out a hypothetical scenario. Let's say the investor has $20,000 worth of capital. How would they feel if they lost $10,000 of said capital? Would they feel optimistic and keep investing, or give up and put their money in something much safer, or even quit altogether? The people who picked the first choice are the type of people who might side with the aggressive style of investing. The second type of people might want to play it safe, as they could have more to lose.

Not only is risk tolerance important, but age is also an important factor in portfolio style. If an investor is in their 30s, they might want to choose an aggressive investment strategy, as it will help them build more wealth when they eventually retire. Someone who is in their late 50s to early 60s, however, might want to take their once aggressive portfolio and make it safer, as they are closer to the age of retirement and are looking to protect the money that they have compounded over the years (Morningstar, 2024).

Limitations
VII.

The findings have been clear: which strategy, active or passive, is superior. The facts remain that stocks can be highly volatile, market data might not have been as accurate as desired, or other asset classes can wildly outperform said strategies. Limitations must be taken into account, and represent why certain changes in the data could have skewed the results. For example, let's say one year a certain actively managed fund outperforms a passive fund. This can happen because passive funds are completely reliant on the market or the top 500 stocks, whereas active funds mostly rely on handpicked stocks (Raymond James, 2025).

If, in a given year, the funds in the actively managed portfolio slightly or even significantly outperform the benchmark, it may indicate that the management team's strategies are effective. However, consistent performance over multiple years is necessary to form a reliable overview of the portfolio's success (S&P Dow Jones Indices, n.d.). Taking another example, let's say certain data may not have been as accurate as it should have been. Even being one percent off can completely throw off the results, especially since the 14-year accumulation period used to gather the data. A single percentage point may not seem like much, but the 5% gap could have been a 4% or even a 3% gap between the two strategies. Looking back to the 14-year investment period, the loss with an initial $10,000 capital could have been $13,000 less with a 3% gap (Vanguard Group, 2024).

Asset classes are another important section of the discussion. Not everyone wants to invest in high-risk, high-reward strategies. Connection is evident from the theory of how a person closer to retirement might slow down the aggression on their portfolio, rather than someone who wants to build a more aggressive portfolio, because the person is likely to be younger or could have less to lose than someone who is only a year or a few months away from retirement (Morningstar, 2024).

That differentiation is significant in how someone might build up their portfolio, and it could lead to a complete avoidance of the stock market. Even though these factors can influence the way data is tracked and used, the data shows how many of these people use these strategies. The investment landscape in the U.S. shows a clear shift towards passive investing. As of early 2025, passive assets have made up over $16 trillion, compared to just over $14.1 trillion for active assets (Morningstar, 2024).

This change is also evident in the mutual fund and ETF markets, with passive strategies accounting for over 50% of the market share (S&P Dow Jones Indices, n.d.). Additionally, a 2021 survey found that 71% of investors view passive investing as a stable and preferable long-term strategy, compared with 29% who prefer active strategies. However, many investors do choose a mixed approach, combining both active and passive methods to optimize gains, diversify their portfolios, and manage risk (Neuberger Berman, n.d.). The two strategies, however different they might be, can be combined to make a better overall portfolio (Russell Investments, 2024). Overall, it is the investor's choice that has the final say on their portfolio.

Conclusion
VIII.

By blending a variety of asset classes, investors can effectively navigate market fluctuations, ensuring their portfolios are not only low-risk but also structured for consistent growth over time (Russell Investments, 2024).

Passive Funds often have lower fees and less management hassle compared to Active Funds, making them a more attractive option for many investors (Vanguard Group, 2024). Active Funds, on the other hand, can offer the potential for higher returns if the fund manager makes the right calls, but they also come with higher costs and risks (Abrantes, 2017). Understanding these differences can help investors choose what best aligns with their financial goals and risk tolerance (Morningstar, 2024). Ultimately, knowing how to balance the benefits of Passive Funds with a diverse investment approach will lead to smarter and more effective investment strategies (Neuberger Berman, n.d.).

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