FACULTAD DE CIENCIAS ECONOMICAS Y EMPRESARIALES

PASSIVE PORTFOLIO MANAGEMENT AND THE DEBATE VERSUS ACTIVE MANAGEMENT

Author: Alejandro Muntañola Estefanell

Coordinator: Ignacio Cervera Conte

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I. Abstract

This paper aims to provide a comprehensive analysis of passive fund management and a comparative study with active fund management. The performance of both strategies and their historical returns will be evaluated using a range of performance ratios that will be explained to elucidate the differences between the two. Various financial instruments facilitating passive investing will be introduced and discussed along with their performance trends over time.

In addition, this paper will delve into the ongoing debate between the two investment strategies, offering insights into different perspectives from renowned investors and authors who have endorsed and supported each of the two strategies. Their arguments will be evaluated in detail, providing an in-depth understanding of the current discourse on this subject matter.

II. Resumen

Este trabajo de fin de grado pretende ofrecer un análisis exhaustivo de la gestión pasiva de fondos y un estudio comparativo con la gestión activa. El rendimiento de ambas estrategias y sus rentabilidades históricas se evaluarán utilizando una serie de ratios de rendimiento que se explicarán para aclarar las diferencias entre ambas. Se presentarán y analizarán diversos instrumentos financieros que facilitan la inversión pasiva, junto con sus tendencias de rendimiento a lo largo del tiempo.

Además, este documento profundizará en el actual debate entre las dos estrategias de inversión, ofreciendo perspectivas diferentes de inversores y autores de renombre que han respaldado y apoyado cada una de las dos estrategias. Sus argumentos se evaluarán en detalle, proporcionando una comprensión profunda del discurso actual sobre este tema.

III. Keywords

Indexed funds, ETFs, passive investing, active investing, performance ratios, Efficient Market Hypothesis, risk, reward, management fees, Vanguard, Sharpe ratio.

IV. Palabras clave

Fondos indexados, ETFs, inversión pasiva, inversión activa, ratios de rendimiento, teoría del mercado eficiente, riesgo, beneficio, comisiones de gestión, Vanguard, ratio de Sharpe.

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1. Introduction

In the past few years, there has been a serious debate regarding investment strategies. Some experts support passive investing while others are more in favour of active investing. Throughout this paper I will present both methods, trying to show both perspectives and ways of thinking. However, I will put a special emphasis on passive investment and its benefits.

First of all, I will briefly explain what both strategies are. Passive investing is an investment strategy that involves minimal ongoing buying and selling of securities. It is a way to invest in which investors put their money to work in index funds or ETFs (I will explain what they are afterwards) or create a very diversified portfolio and they leave it there for a very long time so that it capitalizes. Passive investors aim to simply track the performance of a particular market or index by holding a diverse portfolio of securities. The goal of passive investing is to achieve the same returns as the overall market, rather than trying to outperform it (Gete Arauzo, 2017).

On the other hand, active management consists of trying to choose the "winners". By winners, I mean the stocks that we think are going to outperform the market. This strategy is indeed riskier, but if you choose the right stocks, your returns will also be higher than the ones obtained by the market.

To briefly introduce the passive strategy benefits, I will use a parable that Warren Buffet used in 2006 in a letter to shareholders and afterwards has been used by many authors such as John C. Bogle, founder of The Vanguard Group.

"The Gotrocks Family". I will not quote the whole parable word by word, but I will explain the most important details. Imagine that all American corporations are owned by the Gotrocks Family. Every year they grow richer and richer, and they reinvest their dividends in the companies. One day a group of "Helpers" approached them and convinced some family members that they could outsmart their relatives by investing more money in some companies and selling some of the other companies. They would do these transactions for them and get paid a fee. After some time, the family members that had hired these Helpers realized that they were not outperforming their relatives but the opposite, the family was losing money because of the fees paid to these Helpers.

After some time, a “Manager” came to the Gotrocks family and told them that he could manage their portfolio to outperform the market for a fee. Some family members hired him and after some time they realised that they were not outperforming their relatives either and they were losing money because of the fees. They ended up understanding that by paying all those fees to the “middleman” they were losing money (Bogle, 2017).

In this parable, we see the importance and relevance of costs when investing. These “Managers” might be outperforming the market in absolute terms, but we, as investors, need to consider the fees that must be paid for their job.

There are numerous forms of passive investing strategies. Index fund investing, which is purchasing a fund that follows the performance of a specific index, such as the S&P 500, is one of the most popular ways. The use of index funds is seen to be a low-cost method of obtaining diversified exposure to a given market or index (Bogle, 2017).

Exchange-traded funds are a different form of passive investment (ETFs). These are comparable to index funds, but they trade on a stock exchange. ETFs frequently feature lower expense ratios than mutual funds and allow investors to purchase and sell shares at any time of the day.

Passive investing has gained popularity in recent years, as many investors have become sceptical of the ability of active managers to consistently outperform the market. I will get more in-depth about this topic in the following sections. In addition, advances in technology and the availability of low-cost index funds and ETFs have made it easier for investors to implement passive investing strategies (Hedgeye, 2015).

Just so that you see the popularity that passively managed funds have gained, we can see in the following graph the outflow from equity mutual funds to ETFs and passively managed index funds from 2007 up until 2014.

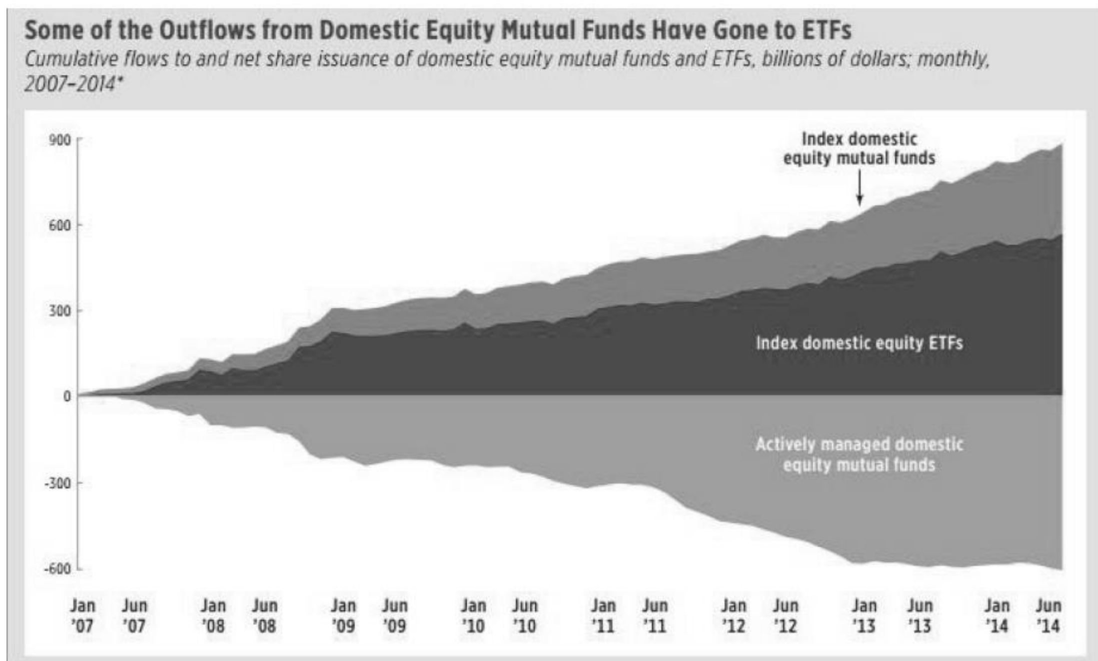

Exhibit 1: Hedgeye, (2015). *Fund flows | Passive is Massive and Cash is Becoming King Again.*

However, passive investing is not without its critics. Some argue that it can result in a lack of diversification, as it often involves a heavy weighting towards large, well-known companies. Passive investors may also miss out on opportunities to benefit from undervalued or mispriced securities (Fisch et al, 2019).

This paper will discuss all the before-mentioned topics in the following structure. First, I will introduce both investing methods, explaining their pros and cons and will give a theoretical framework. Afterwards, I will get more in-depth into the literature and present the current debate regarding both methods of investing. I will talk about different authors and their points of view, giving a conclusion and final personal point of view of the thesis.

1.1. Objectives

The world of investment management is vast and complex, with many investment strategies and products available to investors. Two of the most common approaches are active and passive investing. While both approaches have their strengths and weaknesses, there has been a growing trend towards passive investing in recent years. The main objective of this paper is to explore the advantages of passive investing and demonstrate why it is a more reliable and consistent strategy for generating long-term wealth.

I will give an objective point of view of both strategies, posing the main advantages and disadvantages of both and explaining in depth the debate, trying to be utterly unbiased.

Another goal to be achieved with this paper is that it gets to as many people as possible so that they can get their own opinion, a well-formed opinion, on how to manage their funds and the importance of investing for their personal finances.

1.2. Methodology

This paper will be based on the literature available in the bibliography. It will be a descriptive paper in which the debate between active and passive fund management will be studied. From the information contained in these documents, ideas and conclusions will be drawn that will be used to form my own opinion on the subject.

On the one hand, I will analyse qualitatively the differences between the two modes of management, analysing the different methods and the advantages and disadvantages they have.

On the other hand, I will analyse quantitatively both methods, comparing graphs and tables with historical information on the returns obtained by different investors using both methods. I will analyse in depth the importance of the costs related to investment and the importance they have in the calculation of returns.

1.3. Motivation

For the past few years, I have been very interested in all finance-related topics. While in an exchange program in the US, I took a course called Investments in which we learned a lot about fund management. One of the main topics of our course was passive investing, and I realized the benefits that it has and the importance for all young investors to know about it. My interest kept growing, so I decided to deepen the analysis of the topic by doing my final thesis about it.

I found a significant difference between the US and Spain in that sense. There, all young people know how to invest, the benefits and disadvantages of the different strategies and the best way to manage their funds. Here in Spain, I don't think it is as common as in the US, and I believe it is important to get this information as soon as possible so that you can capitalize from the long run on passive investing.

I also believe that by doing so I will learn a lot more about managing my funds in the best way possible. It is a topic that is still being discussed by many authors and where there are many different points of view. Therefore, I consider it is important to be updated on the topic and have some knowledge about it.

2. Theoretical framework

2.1 Passive investing roots

Passive investing as we know it appeared in the years after World War II. At that time, there were mainly actively managed funds, but some discoveries and theories such as the Efficient Market Hypothesis by Eugene Fama, and Modern Portfolio Theory by Markowitz led John Bogle to establish the Vanguard Group. Bogle had always been a firm believer that no one could consistently beat the market, mainly because nobody had access to privileged information. Therefore, he created the first passive index fund, which tracked the market. This allowed investors to have a low-risk asset that would have a similar performance to the market itself (Bardia, 2022).

John himself explained that the costs of managed funds will deteriorate returns for investors. In his book, *"The little book of common sense investing"* he shows that beating the market before costs is a zero-sum game, whereas beating the market after costs is a loser's game. When he realized that mutual fund managers were charging high fees and their returns were not being as expected, he understood the importance of creating a passively managed fund (Bogle, 2017).

He is not the only one who thought that. Peter Lynch, who is a very successful American investor, and manager of the Fidelity Magellan Fund stated that: "The S&P is up 343.8% in 10 years. That is a four-bagger. The general equity funds are up 283% […] The public would be better off in an index fund." (Bogle, 2017).

This is just another example, said by another successful investor in which we can see that investing in an index fund is typically more beneficial to the average investor.

Nowadays index funds, ETFs, and in general passive investment instruments have grown in popularity. People have realized that there is a safer way to earn good returns from equities without exposing themselves to too much risk. Some estimates have predicted that by 2024, index funds and other passive investment instruments will hold over 50% of the market (Fisch et al, 2019).

The following graph shows the relation between market return and investment return, presenting the basics of passive investing. We can see that over long periods, investment and market return are almost the same.

This implies that if investors put their money in an index fund, they will be able to achieve the same returns that those companies are achieving.

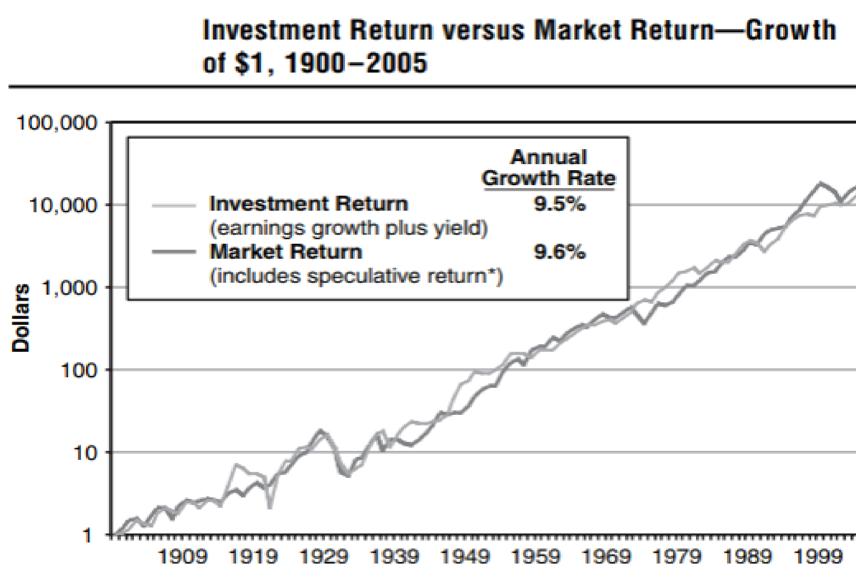

Exhibit 2: Bogle, (2017). *The little book of common sense investing.*

So far, it should be clear, that investing in an index fund that tracks the market will give us steady and good returns over time. We cannot say that past returns will guarantee future returns, but they will give us a good sense of the market and what has happened in the past century.

After this brief introduction to passive investing and its origin, I will proceed to explain what active management is and some of its perks.

2.2. Active management of funds

I will now get more in-depth into the active management of funds. Active management defenders consider that the market is not efficient enough, therefore there should be someone who, with enough analysis of the different financial instruments and stocks, will be able to generate higher returns than the ones offered by the market and will outperform it. They will try to create a portfolio of companies that will generate higher returns than the market with the same or less risk, becoming a more attractive investment that an index fund.

A very simple yet clear example of what they are trying to do could be the following: imagine we want to buy a car which will cost us 50.000 euros. Suddenly, a person comes to us and tells us that he will sell his car, which is better, faster and satisfies the same

needs as the other for the same or a bit less money. Everyone will choose to buy the second car. Active managers try to do the same, they create a financial instrument that will outperform the market and therefore will attract investors' money.

I will divide this part into 3 sections. In the first place, I will dive into the difficulties of active investing and why not everyone can just start actively managing their money picking the winners. Secondly, I will explain and show graphically the performance that active managers have had historically and lastly, I will explain in depth the effect that costs of having someone actively managing investors' money affect their returns.

With the previous analysis and information, we will have a good overview of active management of funds, and we will be able to identify the differences with passive management. This will help us to understand the literature and the current debate on both methods.

2.2.1. Difficulties of actively managing funds

To actively manage funds means that you can create a portfolio of companies and trade their stocks in the right way to outperform the market and maximize returns. To do so, you will need some deep knowledge about the market, different financial instruments and how to operate with them.

This is not something that people learn throughout the night, it is something that requires years of learning and studying. Choosing the winners is not an easy task and not everyone can dive into trying to do so and achieve good results consistently.

Moreover, as a fund manager, people should not only outperform the market but also generate enough returns so that their investors, after paying the managing costs and fees, will still perceive more returns than what they would have received if they had invested in an index fund.

This is not easy to do, and not only do you need skill, but also luck. It is clear, and we have seen it many times, that active managers outperform the market for some years, but the difficulty lies in doing so consistently over time. In the end, after many years have passed, the market wins (Bogle, 2017).

Another issue of actively managing funds is the high amount of time it requires. If an ordinary person tries to do so, it will require a lot of time from them, something which is not always available. People have their jobs, families and responsibilities which they need

to take care of before anything else. That is why typically it is better to invest passively when you are not dedicated to investing full-time.

I will now move on to explain and show some of the historical returns that active managers have obtained over time.

2.2.2. Historical performance of actively managed funds

Historically, actively managed funds have had very unstable returns. As I introduced earlier, some managers got great returns for a few years and then very bad results for the next years. We could attribute this to the economic cycles, but truly it was not because of that. Some managers even performed better during these economic recessions.

Mutual funds were the most famous vehicle for unprofessional investors to put their money so that a professional managed it. These mutual funds were always actively managed and in the following graph, we can look at the difference in returns obtained by an index fund, and the average mutual large-cap fund from 1991 to 2016 when investing $10.000.

We see that the market return was $79.200, and the index fund return was almost the same. However, when we look at the actively managed large-cap fund, we see that revenues were diminished to $55.500. Then we would also need to consider the costs for investors; those actively managed funds charge high fees to their clients. Finally, a 2,6% inflation rate during those years leaves to investors that invested in mutual funds, a 3,6% return (Bogle, 2017).

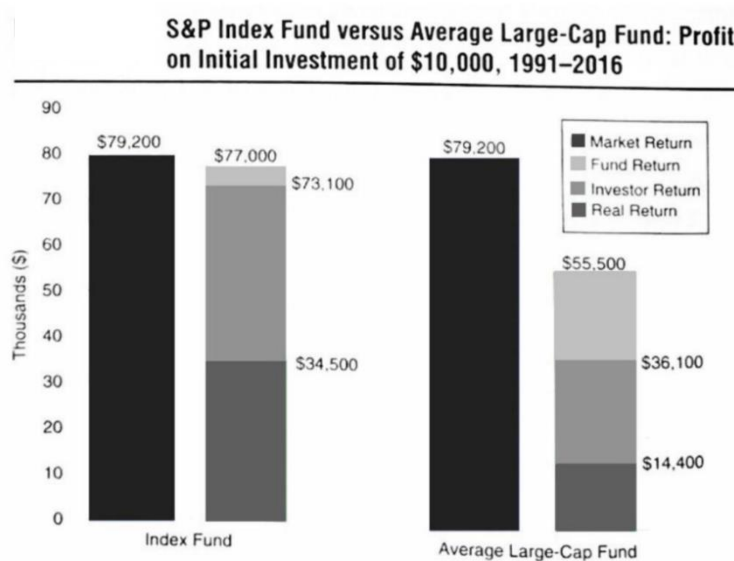

Exhibit 3: Bogle, (2017). *The little book of common sense investing.*

We could indeed argue that large-cap funds would not represent the best context/market for active managers. The best place for an active manager to operate is in the "dusty corners" of financial markets. They would be best off looking for those places, where there are fewer fundamental analysts and less active investors so that they will be able to find more inefficiencies and take advantage of them (AQR, 2018).

However, the graph is truly representative of most funds actively managed at the time. Most managers focussed on large-cap companies and tried to pick the winners which would beat the market.

2.2.3. The effect of high costs when investing

Costs are a key factor when investing. It is something that every investor should think about before investing their money. There are many types of costs, commissions, custodian fees, advisory fees, market costs, and others. All these will have a significant effect on the returns obtained at the moment of selling.

Active investing requires managers to spend a lot of resources researching, studying, and trying to find the best stock to create their portfolio. On the other hand, passive investing requires a lot less effort, therefore internal expenses are way lower, and fees charged to clients will also be lower. The fact that passively managed funds make fewer trades, will necessarily mean lower transaction costs (Witz & Zemon, 2017).

So that you can appreciate the difference in costs, investors typically pay charges of around 0,75% every year for actively managed funds. On the other hand, for a passively managed fund, investors normally pay a 0,25% yearly fee. However, these percentages may vary depending on the amount invested and the fund itself, some active funds could even charge a 1% and passive funds could go as low as 0,1%. It might seem a small difference at a first glance, but when you see it over time, with the effect of compounding interests, you will see the great difference in returns that it provokes (Barclays, 2022).

In the following graph presented by Bogle in his book, "*The Little Book of common-sense investing*" he explains the effect of costs when investing. He puts a 50-year period of time and shows the growth of $10,000 invested at the beginning of the period. He assumes 8% returns from the market annually, which is represented by the top line in the graph. On the second line, the darker one, he represents the revenue from a mutual fund with a 2,5% yearly commission.

As we can see, at the beginning of the period, up until almost the 20th year, both lines are very similar. However, due to compounding interests, both lines start to separate, ending after the 50-year period with a $323,600 difference.

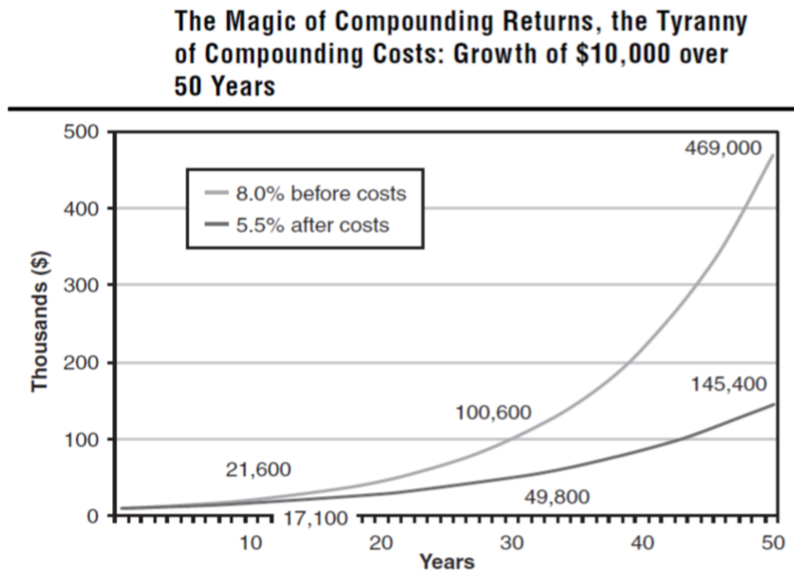

Exhibit 4: Bogle, (2017). *The little book of common sense investing.*

This is just an example of why costs are relevant when investing and when trying to find a fund in which to invest. If a certain person decides that instead of putting their money in an index fund, they want a professional investor to actively manage it, they should try to find a fund with the lowest fees and costs possible. That way their returns will be less diminished.

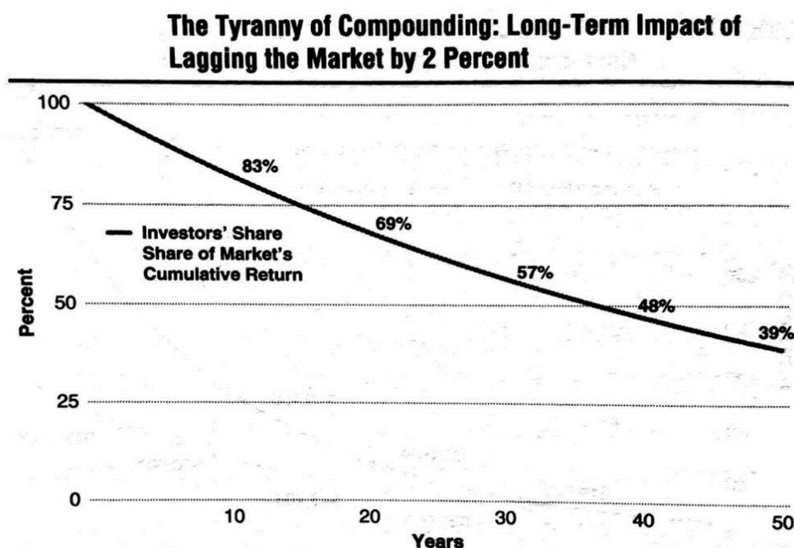

Exhibit 5: Bogle, (2017). *The little book of common sense investing.*

In this last graph, I want to illustrate once again the effect of costs over the long run. We can see the percentage of money that investors will get at the end of the 50-year period

due to compounding costs. They will get just a 40% of the total return they could have got if they had invested in the market without paying a 2% yearly fee.

There is a very interesting quote by John C. Bogle (2017) that I think fits perfectly to conclude this topic. He said, “You put 100% of the capital and you assume 100% of the risk. But you only earn less than 40% of the potential return”. This makes me think that if everyone knew the real power that costs have over their investments, they would change their investment strategies.

2.3. Passive investing strategy

After explaining in depth what active investing is, I am going to dive into passive investing, explaining exactly what it is, the different theories and financial instruments which serve the purpose of passive investing.

As explained in the introduction of this paper, passive investment is based on the idea that the market is efficient and that no one has insider information. Therefore, the best way to capitalize on the growth of the whole economy itself is by investing in the market. Investors will be able to profit from the market growth by investing in index funds, ETFs, and other financial instruments which track the market and mimic what’s happening.

For investors who want to gain from the market's growth overall while reducing risk and expenses, passive investing is, as we will see, a highly successful investment approach. Investors can create a diversified portfolio that can assist them in achieving their long-term investment objectives by making investments in low-cost index funds, ETFs, and other financial instruments that track the market.

2.3.1. The Efficient Market Hypothesis

The Efficient Market Hypothesis, from now on EMH, states that security prices fully reflect all available information about securities at all times. There is an instantaneous adjustment of prices to new information (Vokata, 2022).

The theory understands that arbitrageurs trade on any observed inefficiencies in the market and make them disappear. To put an example that the market as a whole can be more informed than any single individual there is a very interesting real-life example:

In 1986, a space shuttle called Challenger exploded shortly after lift-off and no one had a clue about the cause of the accident. 4 publicly traded companies had made parts of that aircraft and the returns from the stock on the day of the accident were the following:

Company	**Stock return**
Lockheed	-2,14%
Rockwell International	-2,48%
Martin Marietta	-3,25%
Morton Thiokol	-11,86%

After some investigation, a research commission found out that Morton Thiokol had manufactured a faulty part which caused the accident. As we can see, on the day of the accident it had been the stock that decreased the most (Vokata, 2022).

There are 3 levels or forms of market efficiency and each of them is a bit different.

- Weak form: The information set reflected in current prices contains all past trading data, (historical returns, trading volumes…)
- Semi-strong form: The information that reflects current prices contains past trading data and all other publicly available information (balance sheet information, quality of firm's management…)
- Strong form: The information set reflected in current prices includes all possible information, both public and private. If this strong form of the efficient market hypothesis holds, then nobody can make abnormal returns in any case, no matter the information they use (Vokata, 2022).

Therefore, after understanding this hypothesis and the fact that passive investing lies under this condition or theory, any investor can only beat the market in the long run if they are lucky or if they take more risk than the average systematic risk. This is precisely what I explained before in this paper. According to passive investing defenders, actively managed funds will only be able to beat the market in the long run if they are lucky enough to keep choosing the winners over time.

This is what many people have realised recently and the reason why so many investors have flown over to index funds and passively managed funds. I showed this in the graph presented in the introduction of the paper.

2.3.2. Risks associated with passive investing.

There are many risks associated with investing which we should understand before diving into the existing debate between both strategies. The division that I want to

make regarding risks when investing is systematic vs unsystematic/idiosyncratic risk. The sum of both represents the total risk of investing.

Total Risk = Systematic Risk + Unsystematic Risk

The following graph shows the relation between both risks and which one we can try to minimize to reduce the riskiness of our overall portfolio.

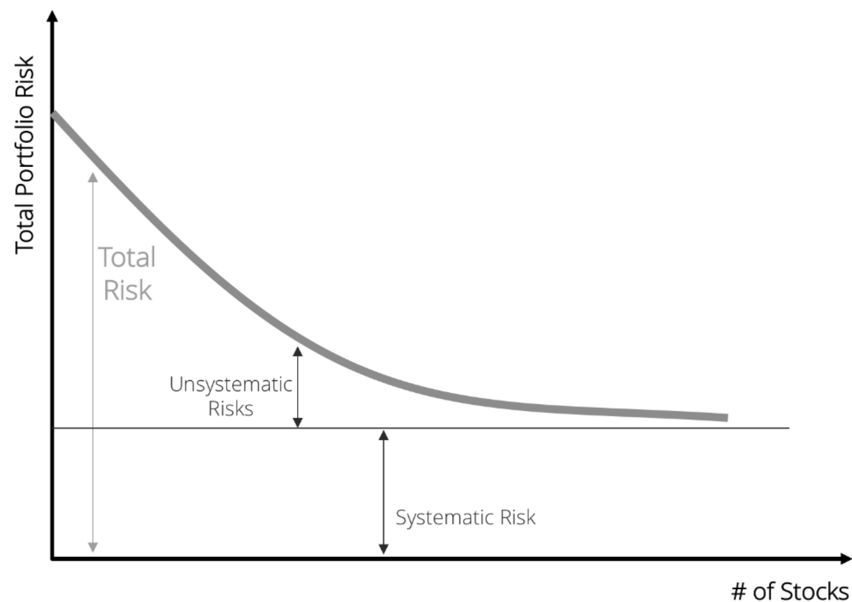

Exhibit 6: CFI Team, (2022). *Systematic Risk.*

- Systematic risk: This type of risk is the one we incur in by the mere fact of investing. It is external to the company, there is nothing companies can do to avoid this type of risk. There are many risks that fall into this category and those are the following:
    - Market risk: This risk is highly associated with the mentality of investors. When the market is declining, even the best stocks from the best-performing companies will probably fall. It is not that the companies have done something wrong, just that the situation of the market affects investors' thoughts. It constitutes most of the systematic risk, and that is why sometimes systematic risk is called market risk (CFI Team, 2022).
    - Interest rate risk: This is a perfect example of what is happening right now (January 2023) in the markets. Central banks are raising interest rates, and this is affecting securities, especially bonds,

which are inversely related to interest rates. If interest rates go up, bond prices will fall (CFI Team, 2022).

  - Inflation risk: Purchasing power risk or inflation risk arises from the general increase in the price level. This will damage investors' purchasing power, leading to a slowdown in spending (CFI Team, 2022).

- Unsystematic/Idiosyncratic risk: This risk is directly associated with the company's performance in which a person invests. This is the risk that can be mitigated by the investor by creating a well-diversified portfolio. This is the main risk in which active managers fall into. By trying to pick the best stocks and undervalued ones, they might suffer from low diversification and therefore idiosyncratic risk. This is one of the advantages of passively managed funds. You can be sure that you will have a diversified portfolio with low-correlation stocks and therefore minimize your idiosyncratic risk (CFI Team, 2022).

2.4. Financial instruments which allow passive investing

When we think about creating a diversified portfolio and investing passively, a couple of financial instruments come to our mind, index funds and ETFs. As a particular investor, we could easily try to create a diversified portfolio by investing in a lot of different companies with low correlation between them and letting our money capitalize on them.

However, instead of doing all the research and trying to find the right companies to create a well-diversified portfolio, the market offers us some instruments which we can use to avoid doing all that work. These instruments are index funds and ETFs.

Index funds and ETFs provide transparency as investors can quickly view the fund's holdings and assess how it is doing in comparison to its benchmark. Investors can adjust their holdings to match their long-term objectives and risk tolerance thanks to this transparency, which also enables them to make informed decisions about their investment plans.

2.4.1 Index funds

First, I will start explaining what index funds are, how to invest in them and the historical returns that they have had.

Index funds are a certain type of investment fund. Actively managed investment funds buy and sell securities of companies depending on their thoughts on whether those companies are overvalued or undervalued. In opposition, index funds invest in portfolios that attempt to track the performance of an index such as the S&P 500, the Russell 3000, or Ibex 35. The term index fund includes all investment vehicles, mutual funds and exchange-traded funds (ETFs). There are thousands of index funds, but some of the most known are the Vanguard S&P 500 index fund, and Blackrock's iShares Core S&P 500 ETF (Bebchuk & Hirst, 2019).

These two index funds are managed by 2 of the biggest investment companies in the world. Both of them are part of the 3 biggest index fund managers worldwide. The one that is left is State Street Global Advisors (SSGA). These three companies manage trillions of dollars in assets, providing passive investors with the opportunity to gain exposure to a broad range of assets with low fees and minimal management. They received over 80% of the total assets flowing into investment funds from 2009-2019 and they have grown to become important shareholders, with more than 5% of the shares of many of the S&P 500 most important companies (Bebchuk & Hirst, 2019).

Index funds have proven themselves to be very beneficial for investors, providing them with very low fees, higher returns than actively managed funds after the fees, and many tax advantages. All these things together with the fact that investors will be assuming a lower risk when investing in index funds have made them so popular. People have noticed those advantages, and, in the past few years, there has been an important flow of capital from actively managed funds to index funds.

In the de following table we can clearly see the amount of capital going from one vehicle to another from 2009 until 2018.

Asset Flows To (From) Active and Index Funds ($ Billions).

	Active Funds	*Index Funds*			*Total*
		Mutual Funds	*ETFs*	*Total*	
2009	259.8	62.9	126.5	189.4	449.2
2010	234.5	65.4	127.1	192.5	427.0
2011	27.8	58.4	121.1	179.4	207.2
2012	186.5	80.4	165.4	245.8	432.3
2013	154.1	104.8	195.7	300.4	454.5
Total (2009-2013)	862.7	371.7	735.8	1,107.5	1,970.2
2014	104.2	148.8	207.6	356.3	460.5
2015	(180.9)	175.8	239.8	415.6	234.6
2016	(344.1)	192.1	261.8	453.9	109.9
2017	(63.9)	237.3	463.7	701.0	637.2
2018	(185.3)	172.1	280.5	452.6	267.3
Total (2014-2018)	(669.9)	926.1	1,453.3	2,379.4	1,709.5
Total (2009-2018)	192.7	1,297.8	2,189.1	3,486.9	3,679.6

Exhibit 7: Bebchuk & Hirst, (2019). *The Specter of the Three.*

This table is just a way to show the increase in popularity that index funds and ETFs have had in the past few years, becoming one of the most important investment vehicles currently.

However, there is something all investors should think about before investing. Not all index funds are great and none of them will guarantee future returns. Thousands of new index funds have appeared with the raise in popularity they experienced, but investors should choose wisely which ones they want to put their money in.

There are more disadvantages, but I will present them more in-depth in the following sections of the paper, when I dive into the existing debate between active management and passive management of funds.

2.4.2. The ETF

In the past few decades, the dominance of traditional index funds has been challenged by a new investment vehicle that offers some interesting advantages, the ETF.

ETFs are index funds which can be traded in the equity market. It behaves as a normal stock and investors can easily trade it. Therefore, ETFs have the best from both sides;

investors get to invest in a well-diversified portfolio of companies and can trade them easily at any time (Bogle, 2017).

The first ETF was created by Nathan Most in 1993 and it was called “Standard and Poor’s Depositary Receipts” (SPDR) which now is typically called “Spider”. From there, more and more ETFs started to appear, growing in number to become thousands of them (Bogle, 2017).

There are many types of ETFs, and with the increase in popularity that they have experienced, thematic ETFs have also appeared. It allows investors to invest in many different areas and sectors specifically. We could put the example of Energy ETFs, clean technology ETFs and many others. Just like that, investors have the choice to invest in whichever industry they believe will grow the most.

A well-known company for their thematic ETF’s is ARK Invest directed by their CEO, the controversial Cathie Wood. The company provides several ETFs called ARK Thematic ETFs. These are made to give exposure to disruptive innovations and modern technology including electric cars, blockchain, and genomics. They are based on an investment strategy that is driven by research and tries to find and invest in the businesses that are setting the pace in those quickly expanding areas (ARK Invest, 2022).

The ARK Genomic Revolution ETF is one example of these ETF’s. Companies engaged in the research, development, and commercialization of genomic-based products and therapies are exposed through this ETF. The fund has invested in a wide variety of businesses in the pharmaceutical, biotech, and healthcare industries, including famous brands and companies like CRISPR Therapeutics, Illumina, or Regeneron (ARK Invest, 2022).

Investors who want to be exposed to the businesses and technology that are fuelling innovation and growth in the current economy may find that investing in ARK Thematic ETFs is a very interesting and appealing alternative. These ETFs are overseen by a group of skilled and informed investment professionals that continuously track the market and make required adjustments to the portfolio to keep it in line with its investment goal (ARK Invest, 2022).

In conclusion, ARK Thematic ETFs provide a special chance for investors to become exposed to the businesses and technology that are fuelling today's economy's disruptive

innovation and growth. These ETFs provide a practical and affordable method to participate in the cutting-edge businesses and trends that are reshaping the future. They are managed by knowledgeable investing professionals. However, investors must keep in mind that investing in ETFs has risks, so before making any investment decisions, it's crucial to take into account their unique investment objectives and risk tolerance.

Just as any other investment vehicle, amongst ETFs we can also find different types depending on what they track. On the one hand, we can find direct ETFs which are the ones which precisely track an index and if the markets go up, they will also go up (Gomendio de Elejabeitia, 2018).

On the other hand, we can find inverted ETFs, which are those that go opposite to the index they follow. This would be similar to being short in a stock, the difference is that in the case of an ETF you are going against the market instead of just one company, which is way riskier (Gomendio de Elejabeitia, 2018).

ETFs can be tricky for new, unprofessional investors. As they can be traded like a stock in any broker, they might be tempted to constantly trade the ETF. This will diminish the whole purpose of an ETF, which is to hold it for a long period of time to profit from compounding interests. Moreover, for every transaction, investors will be charged brokerage fees, which will also reduce their returns (Bogle, 2017).

ETFs can be very useful as they have many advantages, but investors should think and establish their investment approach before entering an ETF. They must think of it as a long-term investment and avoid being tempted by market conditions.

The risks associated with investing in ETFs is an important topic to think about. Just as with any other investments, market conditions and other elements like changing economic conditions, fluctuating interest rates, and shifting geopolitical events can and certainly will have an impact on an ETF's performance. Especially thematic ETF’s, which are less diversified can have higher risks than traditional ETFs with a wider diversification.

To finish off with this theoretical framework, and before getting into the debate I wanted to introduce some of the key performance indicators which investors use and will help us understand some concepts afterward.

2.5. Performance ratios and indicators

In the following section, I am going to briefly explain some performance indicators and ratios typically used when investing. They all serve different purposes but all of them are important in some way when investing. By explaining them briefly we will be able to understand some concepts which will be mentioned in the debate. I am going to talk about 4 ratios and indicators: Sharpe Ratio, Beta, Treynor Ratio and Tracking Error.

2.5.1. Sharpe Ratio

When investors are trying to define where to put their money, they typically measure the performance of different funds to find out which ones have had the best performance over the years. However, there is an important factor that should be considered, risk (Amédée & Barthélémy, 2022).

Some funds might have obtained better returns because they have incurred more risk than the market. If an investor takes more risk, he "should" obtain better returns. Therefore, to measure risk-adjusted returns we should use a special ratio, the Sharpe Ratio (Amédée & Barthélémy, 2022).

The formula of this ratio is the following:

$$SR = \frac{Rp - Rf}{\sigma p} \quad (1)$$

Where Rp stands for portfolio returns, Rf stands for risk-free rate and σp stands for standard deviation of the portfolio. Thanks to this ratio investors can measure the performance of different funds adjusted to the amount of risk that their managers are taking. A higher Sharpe Ratio will indicate that an investment has a higher return for a given level of risk. (Amédée & Barthélémy, 2022).

2.5.2. Beta

Beta is just a measure of the volatility of an investment. It represents the systematic risk that a stock or portfolio has. I have already explained what systematic risk is, so I will not explain it again. Just briefly, a Beta of 1 indicates that the security's price will move exactly like the market. However, if the Beta is greater than 1, it will mean that the security is more volatile than the market (Vokata, 2022).

Beta is used in the Capital Asset Pricing Model (CAPM) to calculate the expected returns of an asset. This model is used to try to calculate the intrinsic value of a stock or asset and that way find out if it is overvalued or undervalued in the market (Vokata, 2022).

It is key to correctly understand beta because it is an important difference between active and passive investors. Beta also measures the risk that a certain portfolio has, and typically, what active investors do is incur more risk to try to achieve higher returns. Sometimes, the only way to obtain higher returns than the market is by taking on more risk than the market itself, meaning a higher beta of the portfolio. That is why portfolios of active investors have higher betas than the benchmark (which typically is the market).

2.5.3. Treynor Ratio

The Treynor ratio is very similar to the Sharpe ratio, so I will not dwell on this for too long. Treynor ratio, just as the Sharpe ratio, measures the risk-adjusted return of a certain portfolio. However, the main difference, as you will see in the formula, is that instead of adjusting the risk with the standard deviation of the portfolio it adjusts it with the Beta (CFI Team, 2022).

$$Treynor\ Ratio = \frac{Portfolio\ return - Risk\ Free\ Rate}{Portfolio\ Beta} \quad (2)$$

2.5.4. Tracking Error

Tracking Error is very important when comparing the returns obtained by an active manager with the returns of a benchmark such as the S&P 500. In essence, the Tracking Error is a measure of the deviation between the returns of a particular investment portfolio and the returns of a chosen benchmark. It provides investors with a clear understanding of how closely their portfolio is tracking the performance of the mentioned benchmark. In the case of equities, the most used benchmark is the S&P500 as it includes the top 500 companies by market cap in the US economy (Vokata, 2022).

The formula for the Tracking Error is the following:

$$\omega = \sqrt{Var(Rp} - Rb) \quad (3)$$

The formula presents the variation of returns presented by a certain portfolio and the benchmark. It is very useful for investors so that they know if their manager (if he/she is

active) is outperforming the market or not. A smaller Tracking Error is generally viewed as a positive sign for investors, indicating that their portfolio is tracking the benchmark closely and that there is less variation between the fund and the market. A low Tracking Error means that the returns or performance of the portfolio is similar to the one obtained by the market (CFI Team, 2022).

However, active investors use tracking error differently from passive investors. They use tracking error to evaluate whether the deviation of the returns of their fund and the benchmark index is the result of successful security selection or poor risk management.

When the tracking error is low, the manager is likely using a more conservative investment strategy and the fund is closely tracking the benchmark index. When the tracking error is high, the fund is significantly diverging from the benchmark index and the manager is choosing securities at a higher risk. Active managers can utilize this data to modify their investment strategy and decide when to buy and sell (Vokata, 2022).

Passive investors use it differently. As they seek to replicate the market, if their tracking error ratio is small, it will mean that replication is working correctly. On the other hand, if it is high, it will mean that their investments are not replicating the market correctly and they should make some changes (Vokata, 2022).

2.5.5. Jensen's alpha

Lastly, I am going to dive into an interesting measure of investment performance. The difference between a security's actual return and its projected return, given the level of risk indicated by beta, is used to compute alpha, which serves as a benchmark for how well a security has performed in relation to other securities (Vokata, 2022).

This term is used a lot by active investors which "seek alpha". Seeking alpha refers to using active investment strategies, such as stock selection or market timing, to try to produce returns that are higher than the market's performance or benchmark (basically what active investors try to do) (Vokata, 2022).

We should take into account, and it is important to know that seeking alpha involves taking on more risk than simply investing in a passive index fund, and not all investors are successful in their pursuit of alpha (Vokata, 2022).

The formula to get alpha is the following:

$$Jensen'sAlpha = Rp - [Rf + \beta * (Rm - Rf)] \qquad (4)$$

There, Rp stands for portfolio return and the rest is the CAPM model formula. Therefore, if we get a positive alpha, it will mean that we have outperformed the market. The bigger the alpha the better we would have performed compared to an index (Vokata, 2022).

On the other hand, when we obtain a negative alpha, it would mean that we would have done better in the market, taking into account the extra risk that we jumped into by not investing in an index fund (Vokata, 2022).

After the explanation of all these ratios and performance measures, I am going to dive into the existing debate between both investment strategies.

3. Passive investing vs active investing

The debate between active and passive investing has been a topic of discussion among investors and financial experts for many years. There are some economists which are highly in favour of passively managing funds, arguing that it offers a more reliable and consistent strategy for generating long-term returns. On the other hand, others support active investing, arguing that it offers the potential for higher returns by allowing investors to identify individual securities or assets that are likely to outperform the overall market. Both parties have their arguments and consider their strategy to be the best way to increase your wealth.

There is not one solution that is suitable for all investors in the complicated debate between active and passive investment. The ideal investment plan is determined by an investor's unique financial goals, investment horizon, and risk tolerance. Each strategy has benefits and drawbacks.

Investors must be aware of the advantages and hazards of both active and passive investing in this continuing discussion in order to make smart investment choices that take into account their unique situations. Investors can create a thorough investing strategy that is suited to their particular needs and objectives by taking into account the available facts.

Throughout this part of the paper, I will present the different points of view and the arguments that professionals have in favour of both positions and will try to get to a conclusion on which strategy is better and why.

3.1. Arguments in favor of passively managed funds

As it has been shown through many graphs in the text, historically active managers have not been able to consistently beat the market, which is something that we should take into account when considering both strategies. When investors are to decide if they want to passively manage their funds or actively do so, they need to think and take into consideration many different factors. Additionally, if we focus on the current situation of the market, we see something interesting about actively managed funds.

2022 was not a great year for investors, high inflation, bottlenecks, the war in Ukraine, and many other factors caused the markets to be very volatile. But the cherry on top were the interest rate hikes made by the Fed first, and afterwards by the ECB and other central

banks. As this quantitative tightening period started, investors feared that a recession would come because of the macroeconomic situation. This obviously affected the markets, which drastically fell.

The period when money was almost free, companies were growing, and everyone was winning money from investing having little to no knowledge ended. Investors were in pain during this period, and curiously the ones that suffered from this situation the most were active managers. Thanks to a Financial Times article by Clear Barrett (2022), we can exactly know how active managers did in relation to the market. Only 12% of actively managed funds outperformed the market in the first 6 months of the year. Not only that, but the average return of the UK's actively managed funds was of -13,5% whereas the average of passively managed funds was -4,4%. Both types of funds lost money, obviously, but the amount lost by active managers was substantially higher.

Investors are paying a team of professionals, with experience in the sector to manage their money and they are being outperformed by the market. So, in addition to being better off in a passive fund, investors will have to pay fees to those managers at the end of the year for managing their money. These kinds of stories are not the ones we see in the media, the ones which are more of interest to the public are the big active managers, those who outperform the market, but the truth is that the situation in 2022 showed us again that you cannot be beating the market consistently over time (Barret, 2022).

Stephen Yiu, one of the founders of Blue Whale, an important investment fund in the UK and an active manager, even mentioned that all active managers should disappear from the market. He has achieved some great performance in one of their most known funds, the LF Blue Whale Growth Fund, which has obtained the following returns:

	To Date 2023	2022	2021	2020	2019	2018	Since Launch	Annualised
Blue Whale[1]	**+7.5%**	**-27.6%**	**+20.8%**	**+26.4%**	**+27.6%**	**+8.6%**	**+69.4%**	**+10.1%**
IA Global Average[2]	+4.6%	-11.1%	+18.0%	+14.8%	+22.1%	-5.6%	+51.4%	+7.9%
Outperformance	**+2.9%**	**-16.5%**	**+2.8%**	**+11.6%**	**+5.5%**	**+14.2%**	**+18.0%**	**+2.2%**

Exhibit 8: Blue Whale, (2023). *LF Blue Whale Growth Fund Factsheet.*

It is definitely a strong statement, and even more coming from an active manager who has obtained such great results, but we should not take it word by word. He stated that only those with a small portfolio of companies that have been carefully chosen should stay (Oliver, 2022)

Even though it sounds harsh, if we think about it, it makes complete sense. There was a time in which active investing was very popular, and thousands of active investors appeared to try to profit from the situation. Amongst them, there were good investors and others that were not that good but tried to get their piece of the cake anyway. Most of them do not have the personnel nor the knowledge to pick or choose the right companies to invest in. They just pick a large number of stocks and put them in their portfolio to try to hedge against their bets. That might also be one of the reasons why active investors in general are performing poorly. We should not generalise, I am sure there are many great managers with a lot of knowledge about the market that that are proficient in their roles yet may not be achieving the returns they were expecting (Oliver, 2022).

It is interesting the fact that it was Stephen Yiu the one who said that, mainly because he is an active manager himself. This shows that even between active managers they know the difficulties and issues that actively managing funds entails. It is also an important declaration because these "not so great" investors are diminishing the overall image of active investing as a strategy.

Something which really makes passive investing very attractive are the costs. I have already discussed this topic when talking about active investing and how high costs diminish investors' returns, so I will not dive deep into it. Costs are a key factor to think about when choosing an investment strategy. It might seem that they are not important, as maybe for little amounts of money they are not as perceivable as for bigger accounts with bigger investments. Once investors start operating with more and more money, they will realize the threat that they pose to your overall returns (Bogle, 2017).

Moreover, when investing in a passive fund, a fairly consistent return is achieved. By investing in (take the example of the S&P500) the 500 largest U.S. companies, you are also investing in the U.S. economy as a whole. As mentioned quite a few times throughout this paper, and it is something we should never forget, past returns do not guarantee future returns, but we can be almost sure that the US economy will keep existing and growing in the future. We can never say that we are completely "safe" investing in the US economy, but it is one of the safest places to be at (Bogle, 2017).

Additionally, the simplicity fact is key. Most average investors will not have time to get the right amount of knowledge needed to pick the best performers. This is certainly a challenge that not everyone should jump into. If an investor starts investing in stocks that

he thinks will be good and then they turn out not to be so, he will not only lose the money he invested, or part of it, but he will also be charged certain fees for each of the transactions he makes, making his loss even worse (Bogle, 2017).

Overall, I could give a lot of reasons and arguments to convince investors to pursue a passive investment strategy, but in the end, the numbers speak for themselves. I have been explaining via different graphs throughout the text the poor performance of active investors relative to passive investors. However, I will give one last source, a well-known one and very well-recognized internationally, the SPIVA report made by S&P Global. For the following table, I will take data from three important regions all over the world and will compare the performance of different funds relative to their benchmark during different periods of time. All the information in the table was published in June 2022, so it is from that time that we need to start subtracting the number of years in each column.

			% of active funds that underperformed their benchmark				
Type of funds	**Benchmark**	**Region**	**1 Year (%)**	**3 Years (%)**	**5 Years (%)**	**10 Years (%)**	**15 Years (%)**
All Large-Cap	S&P 500	U.S.	55,43	85,88	84,47	90,03	89,38
Europe Equity	S&P Europe 350	Europe	88.84	79.81	87.77	87.81	N/A
All Japanese Equity	S&P Japan 500	Japan	75.43	69.87	74.14	75.32	N/A

Exhibit 9: Own elaboration with information from the SPIVA report.

As we can clearly see, no matter the region in the world, the underperformance of funds compared to their benchmark of reference is obvious. It is not that some residual funds are not performing as they should, but that three out of every four funds in Japan are obtaining worst results than the benchmark. Continuing with Japan's example, and as you might deduct, if only one-fourth of the funds outperform their benchmark, the possibility of an investor choosing the right one is very low. There are thousands of active funds, therefore choosing the one that will outperform the market is not an easy task, and honestly, you will never be able to predict which ones will perform exceptionally as luck will play a key role.

As we have seen, more and more funds are flowing from active managers to passive funds, which shows that people are realising the number of benefits of passive investing and the long-term returns that it generates.

3.2. Arguments in favor of actively managed funds

On the other hand, we have arguments and experts who support active investing. As I have mentioned before, there are thousands of actively managed funds and many active managers behind them. Some are very successful and others not so much, but the fact is that people have traditionally invested in actively managed funds and will continue to do so. It is a good way for investors who do not have enough knowledge to manage their funds but are not happy with the returns that bonds or index funds can provide them.

There are some periods of time and moments in history where maybe it is not great to invest passively, and that might be one of the reasons to put your money in active funds. As explained by Mohamed El-Erian (2023) (a prominent economist, investor and author) in one of his articles in the Financial Times, periods of time where the overall returns are being determined by a macroeconomic situation are the best for passively managed funds. An example would clearly be the past decade, where interest rates were low, the economies all over the world were growing and everything was booming. Thanks to the quantitative easing measures taken by central banks to get out of the 2008 financial crisis, the macroeconomic situation had been fairly stable and "safe". However, the issue comes when times are not so great anymore.

In the following graph we can appreciate the cyclicality of active and passive investing. As we can see there are some periods of time in which passive investing has worked better and other in which investor's money would have been better off in an active manager's hands.

Active and Passive Outperformance Trends Are Cyclical
Rolling Monthly 3-Year Periods (1986 to 2019)

Exhibit 10: Turner. (2020). *Active vs. passive investing in a COVID-19 world.*

Currently, many things have disrupted the steady and safe growth experienced in the past. Geopolitical tension (such as the war in Ukraine), game-changing technological

innovation or the interest rate hikes are just some examples of disrupting events taking place currently. All these have provoked uncertainty and a deceleration in growth. Together, all these factors have caused the prices of some stocks to climb substantially and others to collapse dramatically (El-Erian, 2023).

El-Erian bases his statements on real figures. As we can see in the following graph, interest rates are being raised by the Fed, and as we can clearly see, these interest rate hikes typically have taken place before moments of recession and the Fed had had to lower them again. Just a few examples, Interest rates going up before the 2008 financial crisis, before the dot-com bubble in 2000… In recessions the overall market goes down, therefore it is in those moments that active investing should have more traction as it allows investors to pick the best-performing stocks.

Interest rate levels from 1972 until 2023

Exhibit 11: Trading Economics, (2023). *United States Fed funds rate*

In this type of situation and moment, active managers come into action and could potentially make good asset allocation choices. Good selectivity and smart choices, as well as having a good portfolio structure can generate better returns than the market even after taking into account the higher fees that investors will have to pay to managers. Taking advantage of low valuations, arbitraging or picking small-cap companies whose stock has fallen could potentially be some ways for these investors to increase their returns (El-Erian, 2023).

We could therefore determine that there are some situations in which active investing could be a better choice. Investors could put their money in the hands of well-prepared

professionals with experience and with the right data so that they would choose the "winning" stocks for the period. Navigating periods of market uncertainty is not easy for non-professional investors, emotions get in the way, they see their money being wiped away from the market, and many other things that draw these beginner investors out of the market.

It is at those moments that investors might consider giving their money to someone with expertise that could navigate those periods for them so that they can hopefully achieve the best results possible.

Continuing with that same idea, in moments of turmoil, due to the possibility to sell stocks that are losing a lot of value and buy those which are gaining it, active investors can manage or at least should try to minimize their losses. In order to do so they need a team, which has to be paid and therefore costs arise, making it more difficult for them to beat the market (Witz & Zemon, 2017).

This is precisely one of the arguments that active investors used to justify their underperformance. In easy periods of time, when there are no major events that make the markets move and the macro-economic situation is stable, passive investors tend to perform very well, but when the time comes for the stock to fall and changes need to be made, only active managers will be able to operate in the market to sell the stocks which are performing the worst and buy the ones which are doing better. As explained before this is the situation that has been taking place for the past decade. Therefore, if active investors are right, they should start outperforming the market by the moment this text is being written, March 2023 (Wigglesworth, 2023).

From an active investor's point of view, there are pieces of evidence supported by numerous events that markets are not efficient. Very strange things have happened in the markets in recent years, such as the 2021 and 2022 meme stocks and many others. This is another important factor to take into account when considering active investing. If this type of events take place, it necessarily means that some people, mainly active managers, are profiting or at least could profit from them. However, it is up to investors to decide whether those profits come from skill or pure luck (Wigglesworth, 2023).

What typically happens is that the best investors are the ones that profit from the anomalies and the different scenarios that might take place and the worst investors are the ones losing the money, leaving them with nothing to do and making them run out of the

market. This means that every year, better and better investors (on average) are left in the market (Wigglesworth, 2023)

This leads to a very interesting idea, the "paradox of skill" by Mike Mauboussin. He explains that when two or more players have more or less the same level of skill, luck is the determinant cause of success. In the case of investing, we can clearly see some similarities. Every year better and better investors are left in the market, making the field more competitive and achieving superior profits arduous (Wigglesworth, 2023).

This gives us a very interesting point to think about. Moments in which investors are jumping into the stock market should be the best for professional active managers. They can profit from the inexperience of all those new investors jumping into the market to improve their returns. As I will show in the following graph, in the past few years investors have been jumping into the market, making active investor's activity easy, or at least that is what should happen.

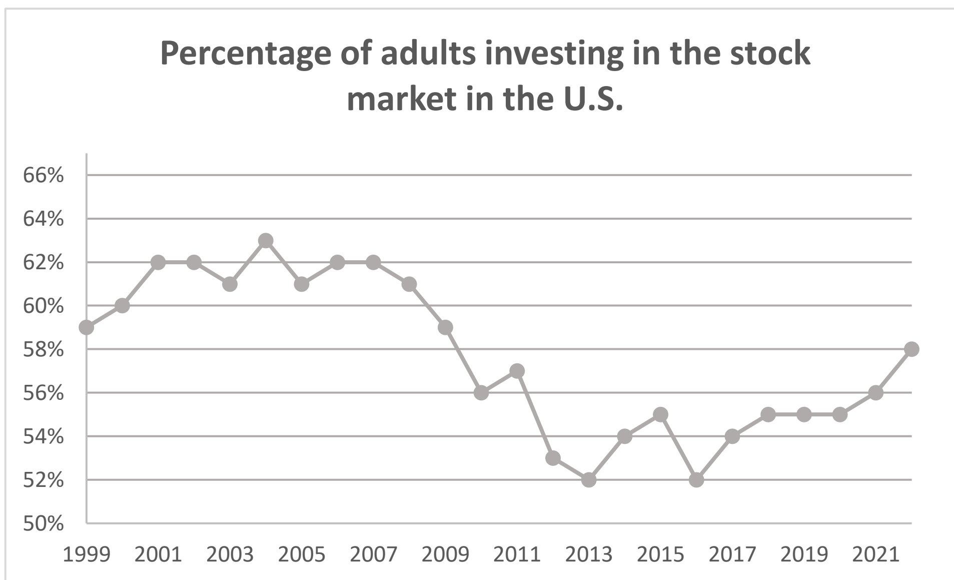

Exhibit 12: Own elaboration with information from Gallup.

We can see that the number of investors in the U.S. is growing, therefore active investor's returns are expected to grow in the next few years as professionals will start profiting from the inexperience of the new investors (Saad & Jones, 2022).

As I mentioned when discussing the arguments in favour of passive investing in the previous section, Stephen Yiu, an active investor himself was criticising active investing. Yet, most of the best investors in the world, even those supporting passive investing (we could think of Warren Buffet, Peter Lynch, and many others) are active managers themselves.

They are recommending passive investing to the vast majority of investors, those who do not have the time, nor the experience and skill needed for them to actively manage funds, theirs or from other people. But Buffett himself has been actively managing funds for almost his whole life, picking the best-performing stocks and trying to outperform the market every year, not even him, considered one of the best investors of all time, if not the best, has managed to always beat the market. I could however argue that actively managing funds is a great strategy for some investors with the required knowledge.

There is a very interesting article by Lisbon and Parchomovsky called *Reversing the Fortunes of Active Funds* that explains why active investing is better and how could we reverse this trend of passive investing. The authors explain that the decline of active funds popularity is very alarming due to their important market effects.

Active managers, through their knowledge and engagements with firm managers, get to have significant effects on returns obtained by individual investors, passive funds, and overall society. Through their trading decisions, and the relationship that they have with CEOs and managers they improve and enhance the value of firms, creating overall value for passive investors (Libson & Parchomovsky, 2021).

By this argument, we could basically conclude that passive investors need active investors to generate returns. Active investors are the ones who make companies produce their highest value and help them grow to their optimum point (Libson & Parchomovsky, 2021)

They even benefit people who do not invest in the stock market. We might ask ourselves, how is that possible? Well, easy, through tax revenues. Society will benefit from establishing better governance standards for an entire industry, which will lift other companies to grow. Gains earned by companies will translate into benefits for society (Libson & Parchomovsky, 2021).

The current tax situation in the US is key to understand why funds are flowing into passive investing instead of active investing. As Lisbon and Parchomovsky (2021) explain,

> "The existing tax regime only exacerbates the plight of active funds. Perversely, passive funds enjoy a more lenient effective tax burden than active funds. The turnover ratio of active funds is over 300% higher than that of passive funds. As a consequence, active funds are taxed more frequently and their effective tax rate is higher by nearly 40%, relative to passive funds."

What they propose would be highly beneficial for active investors. They mentioned the idea of having effort-based tax reductions for investors who are active in the market and can demonstrate that they are doing good to the companies they invest in and that they incur expenses associated with corporate activism and also result-based tax benefits when those active investors are successful in the companies in which they invest. Both of these tax benefits are not mutually exclusive, which means that they could both be applied at some point to try to improve the situation of active investors (Libson & Parchomovsky, 2021).

To be able to afford these tax cuts, they could increase the rates of non-active players in the market, which, as we have seen, are highly benefited from active investors. This is just an idea proposed by active investors and something that would actually make sense, in the end, they are assuming more risk by actively managing their funds and operating constantly in the market.

This change could potentially change the game in many ways. This would possibly provoke an outflow from passive funds and would directly go to active funds. This is just an example of some of the benefits that active investing has, not only for the people who manage their funds this way but also for the rest of the investors and the overall society.

I should conclude this part of the paper knowing that active investors are necessary for the economy and the market, so there should be some type of advantage for them and the way they invest, growing companies and making them better for society.

3.3. A combined strategy?

Some doubts may arise after having analysed both investment strategies. Which strategy should I, as an investor, use? If I am not convinced by any strategy, what can I do? Well, this has an easy explanation. Investors could combine both strategies to try to create a diversified portfolio getting the best from both parts, the easiness to react to changes in the market, and pick what they believe will be successful stocks from an active investing perspective and also profit from the long-term benefits of passive investing.

As I have mentioned throughout the paper, active investors tend to outperform the market in moments of turmoil and instability because you can find more opportunities ad profit from arbitrage. On the other hand, in the long term and in stable moments, investors should bet on a passive investment strategy that has proven to be more successful in those periods of time (Hunt, 2022).

Not only that but there are certain asset classes in which active investors have proven to perform better overall, such as stocks from small companies (small caps) and international stocks from emerging markets. Therefore, an investor who wants to combine both strategies and pursue a mixed one could take this into consideration and not actively invest in the S&P500 companies, where outperforming the market has proven to be way more difficult (Hunt, 2022).

Traditionally active investing was thought to be an individual security selection, but currently, due to the significant amount of investment vehicles and all the investment tools, active investors can create very well-diversified portfolios where they minimize their expenses but still try to seek alpha and obtain exceptional returns. These investors can, thanks to all the different investment tools create a combined portfolio adapted to their risk tolerance, depending on how risk-averse they are, their taste for different sectors, and their personal interest in any sector or idea (State Street Global Advisors, 2022).

Overall, a mixed investment approach that combines passive and active investing can offer investors several advantages, such as flexibility, cost-effectiveness, risk control, and diversification. But before choosing a mixed investment plan, investors should carefully assess their investment objectives, risk tolerance, and time horizon (State Street Global Advisors, 2022).

To do a brief recap of the advantages and disadvantages of both investment strategies, I have created a simple table that will quickly show all the elements that we have presented throughout the text. All of the following have been explained and/or graphically shown in the previous sections, but this will give us an overview of everything:

	Advantages	Disadvantages
Active Investing	1) Possibility to navigate the market. 2) Putting your money in the hands of experts. 3) Potential of higher returns than the market. 4) Opportunity of personalised investment strategies.	1) Higher fees and associated costs 2) Inconsistency of returns over time. 3) High risk, specially suffered by unprofessional investors. 4) Difficulty to select a good investor.
Passive Investing	1) Low costs 2) Good and consistent returns profiting from compounding interests. 3) Low risk in the long run (as we invest in a whole economy) 4) Simple to invest, no additional knowledge required.	1) Lack of flexibility 2) Exposure to market fluctuations 3) Miss out on opportunities

Exhibit 13: Own elaboration.

4. The future of passive investing

Passive investing has been publicised as the inevitable future of markets, with its low fees and transaction costs attracting the share of active investors. However, the extent to which the US market has adopted passive investing is still underestimated and could be potentially dangerous. Looking at regulatory bits by institutional fund managers, it is estimated that the asset-weighted active share across the Russell 1000 has fallen to 35%, meaning that only one in three dollars deviates from a cap-weighted benchmark. The real figure for passive investment in the U.S. may, therefore, be as high as two-thirds, meaning that 66,6% of all investments in the U.S. is managed passively, creating an important opportunity for investors. The author explains that this fact does not necessarily mean that the trend towards passive investing will change, but it is true that there is an opportunity for active investors to gain an edge as the playing field levels off (Taylor, 2023).

We should also take into account and seriously consider the fact that the advantage of passive investing over active has recently been increased by the wave of money that has moved from active to passive funds. The advantage gained thanks to the scale in the past decade, which according to Morningstar meant an increase in returns of around 2% yearly for passive investors, is unlikely to be repeated over the next decade, given that the market is effectively already two-thirds passive (Taylor, 2023).

The popularity of passive investing has also led to concerns about market cyclicality. As certain equities become overvalued, passive funds become more exposed to them. The author explains that investors may need to exercise more diversification in a different environment. Active managers, thanks to the possibility of a quick reaction, may be prepared for a rebound after struggling for a decade. They could potentially profit from this cyclicality (Taylor, 2023).

Passive investing will continue to enjoy a low-fee advantage over active investment, but this may become smaller as the competition drives active fees down. In the following graph by Bryan Armour, from Morningstar, (2022) we can see the decrease in fund fees from 2017-2021.

Fund Fees Charged by Asset Managers as Represented by Equal-Weighted Fees

	Equal-Weighted Average Fees (%)				
	Active				
	2017	2018	2019	2020	2021
U.S. Equity	1.17	1.12	1.11	1.08	1.05
Sector Equity	1.40	1.36	1.32	1.29	1.26
International Equity	1.31	1.24	1.22	1.19	1.15
Taxable Bond	0.94	0.91	0.89	0.87	0.84
Muni Bond	0.88	0.85	0.83	0.80	0.78
Allocation	1.17	1.13	1.11	1.07	1.05
Alternative	1.88	1.80	1.74	1.60	1.48
Commodities	1.22	1.21	1.20	1.23	1.13
All Funds	**1.17**	**1.13**	**1.10**	**1.06**	**1.03**

Exhibit 14: Armour, (2022). *Fund Fees Continued decline is a Win for investors.*

We could conclude that while passive investing has been a blessing for the typical investor, as the market approaches peak passive, the playing field looks a lot more levelled going forward, offering active investors a potential opportunity (Taylor, 2023).

If we consider this option viable, and it certainly looks plausible, there might be a switch again, but the other way around, where we might see funds flowing from passive investment strategies to active strategies again.

On the other hand, we have those who are strong believers that passive investing will still be the way to go in the future. As they consider it, investing is not about predicting the future of a particular company or sector, but rather, it is about making informed decisions based on the historical performance of the stock market. There was a study made by Professor Hendrick Bessembinder, from Arizona University where he analysed the returns of all companies listed on the NYSE, Amex, and Nasdaq exchanges from 1926 to 2016. He found that only 4% of the 26,000 stocks created the total net wealth of the market (Kirk, 2023).

That is just another example of why investing in passive funds that track the performance of the stock market rather than investing in individual stocks will most probably be more beneficial to the average investor. While passive funds may include some underperforming stocks, the handful of stocks that outperform the market will more than compensate for the losses (Kirk, 2023).

Lastly, and once again, investors should focus on making well-studied decisions based on historical market performance rather than trying to predict the future of individual

companies or sectors. In reality, investing is not about knowing the inner workings of companies but rather understanding the broader trends in the stock market. While companies and sectors may come and go, investors can view the action from far away and be confident in their investment decisions, knowing that they will become richer whatever the outcome (Kirk, 2023).

He puts a very clear example which is the AI. With the current boom that AI is experiencing and the change that it is provoking, investors should be worried if they are invested in a specific company. Certain companies are in danger, especially if they do not adapt to the situation and try to include all new technologies in their way of working.

The following graph shows some evidence of the importance of what Kirk argues. McKinsey did a report in which they showed the average tenure of companies on the S&P 500. We can clearly see how the number has been steadily decreasing going from almost 35 years in 1965 to around 20 in 2019. This just shows in another way the dangers of owning single stocks instead of the market as a whole.

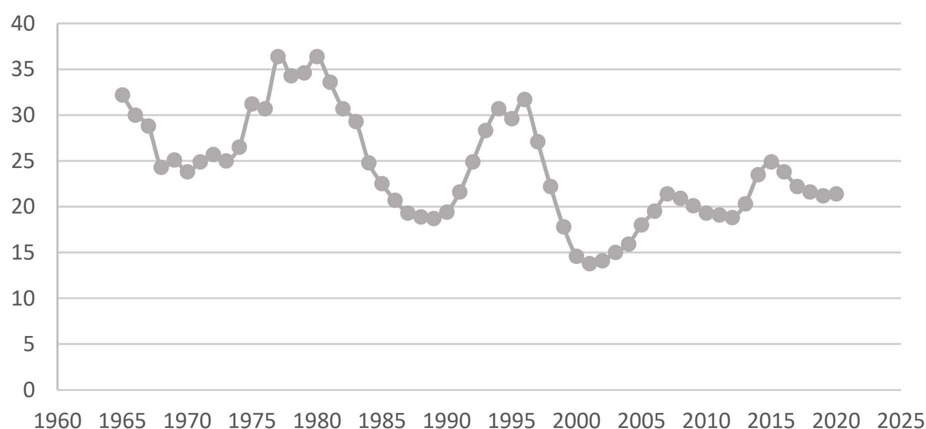

Exhibit 15: Own elaboration with information from McKinsey's report.

In conclusion, there is no clear future of where will passively investing stand in the next years, but what is true is that there will always be advocates for passive investing and advocates for active investing. Trends might change, and in the next few years, we might see active managers rise again, or maybe the trend will continue to go on and passive investors will keep winning market share, only the future can tell.

5. Conclusion

Throughout this paper, I have introduced many key concepts to help understand the differences between active and passive investment strategies. After establishing the theoretical framework, I have identified important concepts to keep in mind when discussing the debate. I have also provided an in-depth explanation of various investment vehicles that allow investors to pursue a passive investment strategy, such as index funds and ETFs. I have demonstrated their historical performance and highlighted key aspects that set them apart from active investing tools.

Moreover, I have explained some key financial metrics and performance ratios which have been used throughout the whole text and are very useful to understand the comparison between the different investment strategies.

Now diving deeper into the debate about which strategy works best, I have presented various arguments that support each strategy. I have even proposed the possibility of a combined strategy that could leverage the best of both worlds, creating a portfolio with active management to take advantage of market timing and abnormal situations, while also adopting a passive strategy to reduce risk and profit in the long run from compounding growth.

Having understood both strategies, and after deeply analysing both, we cannot think of one without the other. I have explained and seen the importance of active investors as well as the importance of passive investors. The market would not work without both of them, making them key players in the ecosystem. Both have got their advantages, which make them different and unique, yet non-exclusive. On the one hand, we have active investing strategy where we can benefit from having more reactivity, the possibility to profit from market timing, and the possibility to invest in specific sectors of your interest, amongst others. On the other hand, we have passive investing which involves investing in an index fund or exchange-traded fund (ETF) that tracks a specific market index, such as the S&P 500. As we have explained, the theory behind passive investing is that it is nearly impossible for active managers to consistently beat the market, and therefore, investors should simply track the market by investing in low-cost index funds.

To choose between both strategies we should take into consideration several factors amongst which we can find the time horizon, investment goals, risk tolerance, and level

of involvement. For younger people who do not want to take on much risk, it makes total sense to invest passively so that they could profit in the long run without risking too much. As we have seen in exhibit 4, the growth of returns is exponential, therefore the longer we have our money invested the higher our returns would be. However, we should also take into consideration the fact that some people might be less risk-averse or want to try to outperform the market.

For this second group of people, those who do not have enough with market returns and think that the market is inefficient and can outperform it, an active investment strategy would be their go-to strategy.

Nevertheless, and as I have been proving throughout the text, there is growing evidence that passive investing is generally a better strategy. I have shown many studies that prove that active large-cap investment funds have not been able to outperform the market during long periods of time. Another study that keeps proving the difference in returns between both strategies is the one made by the S&P Global, the SPIVA report (S&P Indices Versus Active). We have shown a table with the information of this report previously in this paper. It is very commonly used for academic papers and has a great and large sample of mutual funds, which makes it a reliable source to look at. The report shows that after 5 years, the percentage of large-cap active funds which underperform the market is 84%, and that number keeps increasing as years pass by, jumping to 90% after 10 years. This number just keeps increasing to the point where we see that in the long run, it makes no sense to invest in actively managed funds, as they might outperform the market for some periods of time but would not be doing it in the long term (Sheidlower, 2022).

As investors have been realising this, passive investing has gained traction and adepts, growing in popularity to the point where more capital is being invested in passive funds than in active ones, reversing a trend that had been active for many years.

Overall, the research implies that passive investment is a more consistent and reliable method of producing long-term returns than active investing. Investors can participate in the returns of the general market without incurring the expenses and issues related to active trading by purchasing low-cost index funds or ETFs that follow the performance of a certain market segment or index. This can be especially helpful for individual investors who are trying to put together a diverse portfolio that will enable them to reach their long-term financial objectives.

To conclude, as a personal suggestion, investors should not try to look for the next booming stock which will make them rich in a few years, mainly because those are very hard to find, and sometimes the only factor that determines your success is luck. Therefore, as a last piece of advice, I would quote the great John C. Bogle for one last time and say, “Don’t look for the needle, buy the haystack”.

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