

Comparative analysis of active and passive portfolio management: A theoretical approach

Analyse comparative de la gestion active et passive des portefeuilles : Une approche théorique

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Abstract:

The crises that the world has experienced in the last few years are deeply changing the structure of the world economy and therefore of finance. Human being is probably at the end of 40 years of big deflation and may be at the beginning of a great reflation. This evolution will strongly impact the winning investment strategies, and will push investors to experiment with other methods in order to preserve their income and minimize risks. To achieve this, they must implement effective portfolio management by deploying tools and rigorous processes to manage priorities. Portfolio management can be achieved through either active or passive management. Active management aims to outperform the reference market of the managed portfolio. The manager, using various analytical tools, will select in a discretionary way the products, securities or sectors most likely to grow faster than the market. Conversely, passive or index management aims to faithfully replicate the performance of a benchmark market. There are several reasons why investors may choose between the two methods. Using a traditional literature review, this paper aims to outline the characteristics of each form of portfolio management by highlighting the key differences between active and passive management. This paper also emphasizes that personal preferences, investment objectives and risk tolerance play a crucial role in this decision. The main lessons of this article are that active management has the ability to provide higher returns, but is also accompanied by high fees and greater uncertainties regarding future performance. Passive management, by contrast, offers a more cost-effective approach, but can limit the opportunities for outperformance.

Keywords: active management, passive management, investment, literature review, comparative study.

JEL Classification: G11, G14.

Paper type: Theoretical Research.

Résumé :

Les crises que le monde a connues ces dernières années modifient profondément la structure de l'économie mondiale et par conséquent de la finance. L'humanité est probablement à la fin de 40 ans de déflation importante, qu'elle se trouve potentiellement aux prémices d'une phase de grande reflation. Cette évolution aura un impact important sur les stratégies d'investissement gagnantes et poussera les investisseurs à expérimenter d'autres méthodes afin de préserver leurs revenus et de minimiser les risques. Pour y parvenir, ils doivent mettre en œuvre une gestion de portefeuille efficace en déployant des outils et des processus rigoureux pour gérer les priorités. La gestion de portefeuille peut être réalisée par le biais d'une gestion active ou passive. La gestion active vise à surperformer le marché de référence du portefeuille géré. Le gestionnaire, à l'aide de divers outils analytiques, sélectionnera de manière discrétionnaire les produits, les titres ou les secteurs les plus susceptibles de croître plus rapidement que le marché. À l'inverse, la gestion passive ou indicielle vise à reproduire avec fidélité la performance d'un marché de référence. Plusieurs raisons poussent les investisseurs à choisir entre les deux méthodes. À l'aide d'une revue de littérature traditionnelle, ce document vise à présenter les caractéristiques de chaque forme de gestion de portefeuille en soulignant les principales différences entre la gestion active et la gestion passive. Cet article souligne également que les préférences personnelles, les objectifs d'investissement et la tolérance au risque jouent un rôle crucial dans cette décision. Les principaux constats de cet article sont notamment que la gestion active permet d'obtenir des rendements plus élevés, mais qu'elle s'accompagne également de frais élevés et d'une plus grande incertitude quant à la performance à venir. La gestion passive, en revanche, offre une approche plus rentable, mais peut limiter les possibilités de surperformance.

Mots-clés: gestion active, gestion passive, investissement, revue de la littérature, étude comparative.

Classification JEL: G11, G14.

Type d'article: Article de recherche

1. Introduction

Portfolio management is the activity of making strategic investment decisions to maximize returns on a portfolio of assets (Cooper et al., 1999). This management is based mainly on two streams of thought: the first is modern finance, at this level we talk about modern portfolio theory and market efficiency, and the second is behavioural finance, based on investor behaviour and the adoption of a new portfolio management strategy. In the literature, there are several ways and techniques of portfolio management, which mainly start from quantitative investment. These methods are derived from modern portfolio theory to the traditional methods of financial analysis (Amenc and Le Sourd, 2003). In this context, managers have the choice between different approaches or styles of portfolio management, which can vary according to different factors such as investment objectives, risk profile and risk tolerance (Bender et al., 2009). Investors may take a passive or active approach, a sector-oriented approach, or a fundamental or quantitative approach (Bulkley & Hashim, 2019). Each method has its own advantages and disadvantages, which have significant implications for portfolio performance, costs, and risk management, and can be adapted to the needs of each investor.

The efficient market theory by Fama (1970) suggests that portfolio management can adopt a passive approach, also known as index management. According to this theory, asset prices quickly incorporate any new information introduced to the market, making it impossible to achieve superior performance compared to the market. The passive approach is based on the idea of passively following a benchmark. Passive portfolio managers seek to replicate the performance of the index without seeking to outperform, as they adopt a long-term investment strategy. Diversification is a key component of passive management to reduce risk. However, several studies conducted by economists specializing in portfolio management have re-examined the theory of market efficiency, particularly through the famous puzzle of mutual funds (Aaron et al. 2004). To overcome the limitations of passive management, a new approach called active portfolio management has been developed. This approach involves selecting securities based on fundamental analysis with the aim of outperforming the benchmark index. Managers adopting this approach must conduct a thorough analysis of financial markets and financial instruments, as well as consider economic trends that may affect the financial market. So the active approach requires the involvement of the portfolio manager as opposed to the passive approach where the involvement of managers is minimal (Christine Brentani, 2004).

The choice between the two strategies depends on several criteria, including the investor's objectives, liquidity availability, the costs involved, investment horizon, and others. The aim of this article is to shed light on these two approaches by presenting the methods specific to each form of asset management, as well as their respective characteristics. Finally, this article aims to provide a global perspective on the comparison between active and passive portfolio management, highlighting the main convergences and divergences between the two methods, to help investors and finance professionals make informed decisions and design portfolio management strategies tailored to their specific needs and objectives. To this end, the paper will be divided into three sections. The first section outlines the concept of active portfolio management. The second section presents the conceptual framework of passive management. The last section will serve as a comparative tool between the two methods while pointing out the main differences.

2. Active portfolio management

2.1 The concept of active portfolio management

Active management is an asset management approach in which investment decisions are made based on analyses and forecasts of financial markets and individual assets (Kahn and Grinold,

1999). Active portfolio managers are constantly searching for investment opportunities to maximize returns for their clients (Alexander & Baptista, 2008). They may frequently buy and sell stocks, bonds, and other assets based on their market forecasts (Ammann et al. 2001). Active portfolio management is often considered a more intensive approach and generally involves a greater tolerance for risk (Engstrom, 2004). However, several authors have defined active portfolio management differently. For Lynch and Rothchild (2000), active management is defined as an investment approach in which investment decisions are based on analysis and forecasts of both financial markets and individual assets. Active portfolio managers aim to maximize returns for their clients by buying and selling assets based on their future projections. This approach is often contrasted with passive portfolio management, where investments are mainly based on indexing a market or a sector. The authors highlight that active portfolio management can be intensive and generally involves greater risk tolerance, as investment decisions are based on forecasts and analysis, which can sometimes be uncertain or inaccurate. Similarly, Grinold and Kahn (2000), define active portfolio management as an approach that aims to maximize returns for investors by using quantitative analysis to make investment decisions. They present a quantified methodology for active portfolio management that relies on rigorous analysis of firm fundamentals and financial market forecasts. This approach aims to identify undervalued or overvalued assets and to include or exclude them from the relevant portfolio.

Correspondingly, Bogle (2017) considers active portfolio management as an approach that aims to beat the market by using active trading strategies and market forecasts to make investment choices. Moreover, this form of portfolio management involves a high level of monitoring and involvement by the portfolio manager (Graham and Dodd, 1934). Thus, Graham and Dodd (1934) identify five key characteristics of this approach:

Rigorous security analysis: Active portfolio management involves a thorough analysis of securities to evaluate their potential return and risk. Portfolio managers may also use quantitative and qualitative methods to evaluate companies and securities.

Frequent portfolio composition adjustments: Portfolio managers may frequently adjust the composition of their portfolio based on market opportunities and performance of securities.

Fundamental-based investment decisions: Active portfolio management focuses on company fundamentals to make investment decisions rather than short-term market movements.

Active market monitoring: Portfolio managers actively monitor market conditions to identify potential opportunities and risks.

Use of specific investment strategies: Portfolio managers may use specific investment strategies such as overweighting certain sectors or selecting undervalued securities to maximize potential portfolio returns.

2.2. Active portfolio management methods

Active portfolio management involves selecting stocks and bonds based on their performance potential, rather than simply following a market index (Lynch and Rothchild, 2000). It involves a comprehensive analysis of investment opportunities and constant monitoring of the markets to make investment decisions (Cooper, 1999). Common methods of active portfolio management include fundamental analysis, technical analysis, and quantitative management (Gregory-Allen et al., 2009).

2.2.1 Fundamental analysis

Fundamental analysis is considered one of the simplest and most popular methods of evaluating firms (Thomaidis, 2010; Wermers et al., 2012). The main objective of fundamental analysis is to reveal the current real value of the company (Dechow et al., 2001). One of the key goals of fundamental analysis is to predict future earnings, dividends, and risk to calculate the true value of stocks (Anderson et al., 2007). It is not enough to find a prosperous firm; it is necessary to

find firms that are worth more than what other investors estimate (Fabozzi, 1999). Financial ratios play an important role in fundamental financial analysis. They are often used to compare companies that operate in the same or similar industries and are of roughly the same size (Richardson, 2010). Following Abarbanell and Bushee (1997), it is economically justified to rely on many fundamental indicators. Their work shows that macroeconomic variables such as inflation, GDP, etc. determine the relationship between fundamentals and future earnings. The authors demonstrated that fundamental analysis could be used to predict future returns. Similarly, Reinganum (1988) examined 222 companies whose stock prices had increased significantly and proved that it is possible, using nine combinations of fundamental and technical variables, to identify those with superprofits.

Thus, fundamental analysis uses future and present data to estimate fair market value and predict future value (Abarbanell and Bushee, 1998). It usually begins with an analysis of the macroeconomic environment, sector analysis, and financial statement analysis to determine the true value of the company (Srivastava and Kulshrestha, 2020). The goal of the analysis is not just to find a high-performing organization, but to find those that are worth more than what other investors estimate. In the market, investors have the same information, but only the most fearful are rewarded for finding the best opportunities (Harris & Piwowar, 2006). Many studies have shown that traders do not trade simply based on economic fundamentals, but they certainly consider them when making decisions (Grinold and Kahn, 2000; Giese et al., 2019; Nikbakht et al., 2020). Fundamental analysis does not guarantee that the investor will earn high profits on stocks, but it certainly plays an important role in achieving that goal (Baresa et al., 2013).

Fundamental analysis in active portfolio management involves examining the financial fundamentals of a company, such as its balance sheet, income statement, and cash flows, to evaluate its financial performance and economic health (Graham and Zweig, 2003). The two authors also emphasized the importance of understanding economic and industry trends in making informed investment decisions. Furthermore, using a value approach, Graham recommended buying stocks at prices below their actual value, which allowed investors to realize long-term gains by ensuring that companies are financially healthy and performing well. Moreover, Greenwald et al. (2020) state that fundamental analysis in active portfolio management involves identifying organizations with sustainable growth potential and acquiring them at attractive prices using a value approach. The authors focus their analyses on the financial fundamentals of a company, such as the balance sheet and income statement, to evaluate its financial performance and economic health. Finally, fundamental analysis of active portfolio management involves using quantitative data to evaluate the financial health of institutions and make informed investment decisions. To do so, indicators such as earnings growth, profitability, and valuations need to be introduced to select stocks to add to a portfolio (O'Shaughnessy, 1998).

2.2.2 Technical analysis

Technical analysis is a method of forecasting price movements based on past pricing, volume, and open interest (Park and Irwin, 2004). Sewell (2008) provides a more specific definition: « The technical approach to investment essentially reflects the idea that prices move in trends determined by the evolving attitudes of investors towards various economic, monetary, political, and psychological forces. The art of technical analysis, for it is an art, consists of identifying a trend reversal at a relatively early stage and following that trend until the weight of evidence shows or proves that the trend has reversed». Technical analysis encompasses a variety of forecasting methods such as chart analysis, pattern recognition analysis, seasonality and cyclical analysis, and computerized technical trading systems (Schwager, 1995). However, academic research on technical analysis generally focuses on techniques that can be expressed in mathematical form, namely technical trading systems (Achelis, 2001); although some recent

studies attempt to test, visual chart patterns using pattern recognition algorithms (Park & Irwin, 2007). A technical trading system consists of a set of rules that result from parameter settings, where each trading rule generates trading signals (long, short, or out of the market) based on the values of their parameters (Brown & Jennings, 1989).

In a similar vein, Murphy (1999) believes that technical analysis can help portfolio managers better understand the dynamics of financial markets and evaluate investment opportunities. He notes that technical analysis can provide additional information on market trends, support and resistance levels, and technical indicators that can provide buy or sell signals. Murphy (1999) also recommends combining technical analysis with other methods, such as fundamental analysis, to obtain a complete view of investment opportunities. He also states that technical analysis can be a valuable tool for active portfolio management, but must be used with caution and in conjunction with other methods to make informed investment decisions. Bulkowski (2003) believes that technical analysis can provide valuable information on market trends and chart patterns that can help portfolio managers make more informed investment decisions. He also considers that technical analysis can help portfolio managers better understand the dynamics of financial markets and determine support and resistance levels that can influence prices. Finally, Rockefeller (2019) suggests that technical analysis can offer a deeper understanding of market psychology and how traders react to economic events. She also notes that technical analysis can help portfolio managers better understand market trends and determine support and resistance levels that can influence the prices of financial assets.

2.2.3 Quantitative management

Quantitative management is an approach to portfolio management that uses mathematical algorithms to make investment decisions (Maillard et al., 2010). This approach relies on rigorous quantitative analysis and the use of historical financial data to develop predictive models (Brugière, 2020). Quantitative portfolio managers often use statistical analysis and data processing techniques to evaluate investment opportunities. They may use algorithms to assess financial assets, determine potential risks and opportunities, and make automated investment decisions (Verhoef, 2002). This approach has gained popularity in recent years due to its ability to quickly process vast amounts of data and make investment decisions based on objective data (Qian et al., 2007). However, it can also present risks, particularly in the case of misinterpretation of data or unforeseen market conditions (Ceria et al., 2012). In the current literature, there are numerous concepts of the term active portfolio management.

Following Blyth (2013), quantitative management in active portfolio management focuses on the quantitative analysis of vast amounts of data to optimize portfolio composition and maximize returns for investors. He also emphasizes the importance of risk management in quantitative management, as algorithms may not take into account all factors that can affect portfolio performance. For Esposito (2011), quantitative management focuses on analyzing vast amounts of data, including financial and economic data, to construct optimized portfolios in terms of risk and return. He also highlights the importance of risk management in this quantitative approach, as algorithms may not consider all factors that can affect portfolio performance. Esposito (2011) also notes that quantitative management can be used for different investment strategies, such as long-term investment, market-neutral strategies, and algorithmic trading. He also highlights the advantages of quantitative management, such as increased efficiency and objectivity in decision-making, as well as the ability to process large amounts of data to make informed investment decisions.

3. Passive portfolio management

3.1 The notion of passive portfolio management

Passive management is an investment approach that involves tracking the performance of a market index without attempting to beat it through active security selection (Derigs and Nickel, 2003). This style of management typically involves buying and holding exchange-traded funds or other financial products that mimic the underlying index, with the goal of replicating its returns as closely as possible (Cox, 2017). Passive management is considered a cost-effective and simple approach to investing in financial markets (Al-Arabi and Jaimungal, 2021). Passive or index management has been the subject of much debate in financial literature over time (Cox, 2017). Some studies show that passive management can offer similar or superior returns to active management, while reducing the costs and complexity associated with security selection (García et al., 2013). Other studies highlight that passive management can result in systematic biases in portfolios and underperformance compared to well-executed active management strategies (Shukla, 2004).

As stated by Bogle (1999), passive management provides a simple and cost-effective way for investors to access financial markets. He notes that active management strategies are often expensive, complex, and underperforming due to their tendency to follow market trends rather than make wise investment decisions. Bogle adds that passive management reduces investment costs for investors, as it requires fewer resources for security research and selection. Additionally, he believes that passive management offers a more equitable exposure to the overall market rather than overexposing investors to certain industries or regions. For Malkiel (2003), passive management offers a more efficient way for investors to access financial markets by simply tracking market returns instead of trying to outperform them. He notes that investment costs are often lower for index funds than for actively managed funds, which can help maximize returns for investors. Malkiel advocates that passive management can reduce the risks associated with relying on a single active management strategy or specific stock selection. Finally, the author believes that the diversification offered by passive management can help minimize risks for investors.

Similarly, for Fama and French (1993), passive management offers an effective way for investors to access market returns by following long-term trends rather than trying to outperform them. They point out that most active management strategies are not consistently able to outperform the market in the end due to the difficulty of predicting future trends and the need to spend significant resources on research and stock selection. Fama and French also argue that passive management can offer significant diversification for investors, as it will follow market trends without focusing on specific sectors or regions. Additionally, they consider that investment costs are often lower for index funds than for actively managed funds. In line with other authors, Carhart (1997) mentions that passive management offers an effective way for investors to access market returns without taking unnecessary risks. He adds that most active management strategies are not consistently able to outperform the market in the end due to the difficulty of predicting future trends and the need to spend significant resources on research and stock selection. Carhart specifies that passive management can offer significant diversification for investors, as it will follow market trends without focusing on specific sectors or regions.

3.2 History of passive portfolio management

Wells Fargo Bank of San Francisco undertook the first implementation of an explicit passive strategy in the early 1970s. This development was largely the result of academic research on efficient markets, which suggested that much of the effort then devoted to security analysis was unnecessary (Grinold and Kahn, 2000). By the mid-1970s, the concept of index funds and their useful role in investment management were so widely accepted that by the end of 1976, the

value of assets indexed in the United States was about \$1.6 billion. Two years later, this value was about \$7.6 billion (Aliaga-Diaz et al., 2020). By the end of 1985, US equity assets indexed and managed by external managers for pension plan sponsors were valued at approximately \$70 billion, a 70% increase from the previous year (Admati and Pfleiderer, 1997). If one includes the value of internally managed index funds by pension plan sponsors, indexed mutual funds, and other passive portfolios, the US total at the end of 1985 likely exceeded \$100 billion. The total US market available for purchase, after adjusting for intercompany holdings, is about \$2 trillions. Therefore, passive investments represent about 5% of the market (Kahn, 2018).

The first passive British equity portfolios built for British investors were set up in the early 1980s (Busse et al., 2010). Even a small investment bank, Schlesingers, launched a unit trust for individual investors and small pension funds. However, until the beginning of 1984, the total value of passively invested stocks in the UK was probably only about 250 million euros. With British promoters' realization that passive management was a justifiable strategy and the availability of necessary investment technology, subsequent growth was rapid (Reilly and Brown, 2011). By early 1986, two British clearing banks were the largest passive managers in the UK and together managed around 1.5 billion euros. In addition, investment management groups of several brokers, large insurance companies, and a few investment banks all managed index funds, totaling at least 750 million francs (Beasley et al., 2003). If self-managed funds by major pension scheme promoters are included, the total value of passively managed portfolios in the UK domestic market must exceed 2.5 billion francs. The value of available stocks to purchase in the UK is estimated at around 200 billion euros. Thus, within two years, passive investment went from nearly zero to around 1.25% of the available market (Petry et al., 2021). Japan was a little slower to adopt passive management (Holsapple et al., 2006). Kokusai Securities launched the first index fund in June 1985, using the Nikkei 500. Daiwa and Asahi followed in September and October, respectively, with funds indexed to the Nikkei 225. Then in February 1986, Nikko Investment Trust launched the first broad-based index fund designed to track the entire first section of the Tokyo Stock Exchange (Sushko and Turner, 2018). In less than nine months, the value of indexed assets went from nothing to the equivalent of about \$1 billion. It is interesting to note that individuals invested the majority of this money (Petry et al., 2021). In addition to these passive index funds, there was over \$1 billion indexed to various international equity indices. The most popular was the Morgan Stanley Capital International Perspectives index. A group of four or five passive managers in the United States invested most of these funds, with the largest being State Street Bank in Boston, on behalf of US pension plan sponsors (Holsapple et al., 2006).

Growth was not only in equity funds. In addition to the many billions of dollars invested in fixed-income dedication and immunization strategies, which are generally passive, there were some \$11 billion in fixed-income indexed portfolios in the United States by the end of 1985 (Sushko and Turner, 2018). Most of this growth occurred over the past three years and was so rapid that in 1985, Salomon Brothers developed a new index, the Broad Index, to compete with the Shearson Lehman Government/Corporate Bond index, which had become the standard benchmark for fixed-income performance. Finally, in 1985, Wells Fargo Bank, in cooperation with Lombard, Odier & Cie of Geneva, developed an international bond index fund (Gandolfi et al., 2012).

3.3 Passive portfolio management methods

Passive or index management methods generally involve tracking a market index, such as the S&P 500 index in the United States or the FTSE 100 index in the United Kingdom (Black, 1971). Passive fund managers use these indices as a basis for constructing their portfolios by buying stocks that represent the market as a whole (Obeidat et al., 2018). According to Baker and Filbeck (2013), there are several methods of passive management:

Pure passive management: in this case, the index fund buys the stocks in the same order and proportion as the benchmark index.

Physical replication: the fund buys a representative sample of stocks from the benchmark index while minimizing differences between the fund and the index.

Synthetic replication: the fund uses derivative financial instruments to mimic the returns of the benchmark index without having to buy individual stocks.

Index optimization strategy: the fund may slightly adjust the composition of the benchmark index to minimize costs and measurement errors.

4. Difference between active management and passive management

Active and passive management are two different approaches to portfolio management. Below, we present the main differences between these approaches, focusing on different aspects:

Table 1: comparison between active and passive portfolio management

	Active management	Passive management
On the research aspect	It is a practical approach where investors who choose active management can rely on themselves to investigate the market and verify the performance of their investments, because active management requires significant knowledge.	This is a less practical approach, investors who adopt passive management are limited in their research, they rarely negotiate the products they invest in.
On the strategic aspect	The objective of active management is to outperform the market.	In passive management, the objective is to reflect, track, and approximate the performance of the benchmark index.
On the theoretical side	The active approach is based on market inefficiency, i.e. information is not always reflected in asset prices, so we try to profit from price movements.	Passive management believes in the efficient market hypothesis (Fama, 1970).
On the investment time period plan	Actively managed investment strategies can be used at any investment horizon.	Passive management strategies are used only when the time horizon is a long-term (beyond 5 years).
On the diversification aspect	The investor who adopts an active management strategy is limited to the choice of individual stocks.	Passive management offers its user a wide choice that allows them to ensure diversification.
In terms of risk	In addition to market risk, which is also supported by passive management, active management also faces idiosyncratic risk.	The market risk.
In terms of return	Actively managed investments tend to generate higher returns since they take on more risk.	Passively managed investments have an average and stable return.
In terms of cost	Costs are high for active management strategies because the level of order placement is relatively frequent.	Index funds have lower costs than other funds.

Source: Authors

Given that there are several differences between the two approaches whether technical or theoretical, the choice between them remains difficult. Each has advantages that are disadvantages for the other. As for the active approach, the investor who chooses this option does not need an intermediary since he chooses to invest directly in stocks, which makes him a partial owner of the capital. In addition, the investor always has an open mind and in-depth knowledge of the various companies attached to different sectors, which allows him to be more selective in terms of stocks and to time the market better. On the other hand, the passive approach also has advantages in terms of diversification and lower management fees, as the management team is often small since the management is often automated. In addition, practitioners of this strategy are not afraid to select suboptimal securities, as the goal is simply to track the index.

Though, a study conducted in 2018 by the Bank for International Settlements revealed that the use of passive strategies could have implications for the prices of securities as well as for issuers. In terms of security prices, investment decisions do not concern individual securities but the portfolio as a whole, therefore passive managers do not focus on the specific factors of each security in an index, and they do not deploy any clear effort to research specific characteristics of securities for better performance evaluation. In addition, changes in the share of passively managed portfolios could affect security prices due to the trading of the portfolio as a whole on the market. On the issuer side, the increasing popularity of passive management can indirectly influence the relationship between issuers and investors. Indeed, passive funds are intended to invest in all the securities of the index they track, so they are not able to sell their holdings to express their disapproval of certain choices made by individual issuers, unlike active investors. As a result, an increase in passive funds could weaken market discipline and alter the motivation of private issuers to act in the interest of investors.

Choosing one approach or the other generally depends on each investor's wealth strategy, objectives, and the time they are willing to invest. Active management is a time-consuming approach, as it requires a significant amount of time, unlike passive management. The choice also depends on the investment horizon: active management generates higher returns in the short term, while passive management has very strong arguments in the long term.

5. Conclusion

The article has provided a comprehensive overview of the active and passive portfolio management approaches, and the benefits and drawbacks associated with each. The active approach involves a more hands-on approach, where portfolio managers make individual security selections with the goal of outperforming a benchmark index. This approach requires extensive research and analysis, and can result in higher management fees and transaction costs. On the other hand, the passive approach is more straightforward, involving the tracking and replication of a benchmark index. This approach is often associated with lower fees and transaction costs, and is generally easier to manage. However, passive management can result in underperformance compared to the benchmark index, especially during volatile market conditions.

The article suggests that a combination of both approaches can be used through a Core-Satellite approach. This involves integrating the passive approach in the core part of the portfolio, which captures the average market performance, reduces risk and costs, and integrates the active approach in the satellite part of the portfolio, which invests in different securities with strong potential for performance. This approach allows for a personalized portfolio management strategy that takes into account the investor's goals and risk tolerance. The article emphasizes that investors should consider their investment goals, time horizon, and risk tolerance when selecting a portfolio management approach. By adopting a Core-Satellite approach, investors

can potentially benefit from the strengths of both active and passive management and achieve a more efficient and customized portfolio management strategy.

Conversely, it is important to note that these two approaches are not mutually exclusive. Instead of choosing one approach to adopt, it is preferable to mix between the two through another approach called "Core-Satellite". In the core part, one can integrate the passive approach, and in the satellite part, one can integrate the active approach composed of different securities. The advantage of this approach is that it allows for playing on both aspects, on the one hand, capturing the average market performance (through its index), reducing risk and costs, and, on the other hand, seeking to increase returns by investing in different securities with strong potential for performance. By understanding the differences and adopting a Core-Satellite approach, investors can potentially benefit from a more effective and personalized portfolio management.

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