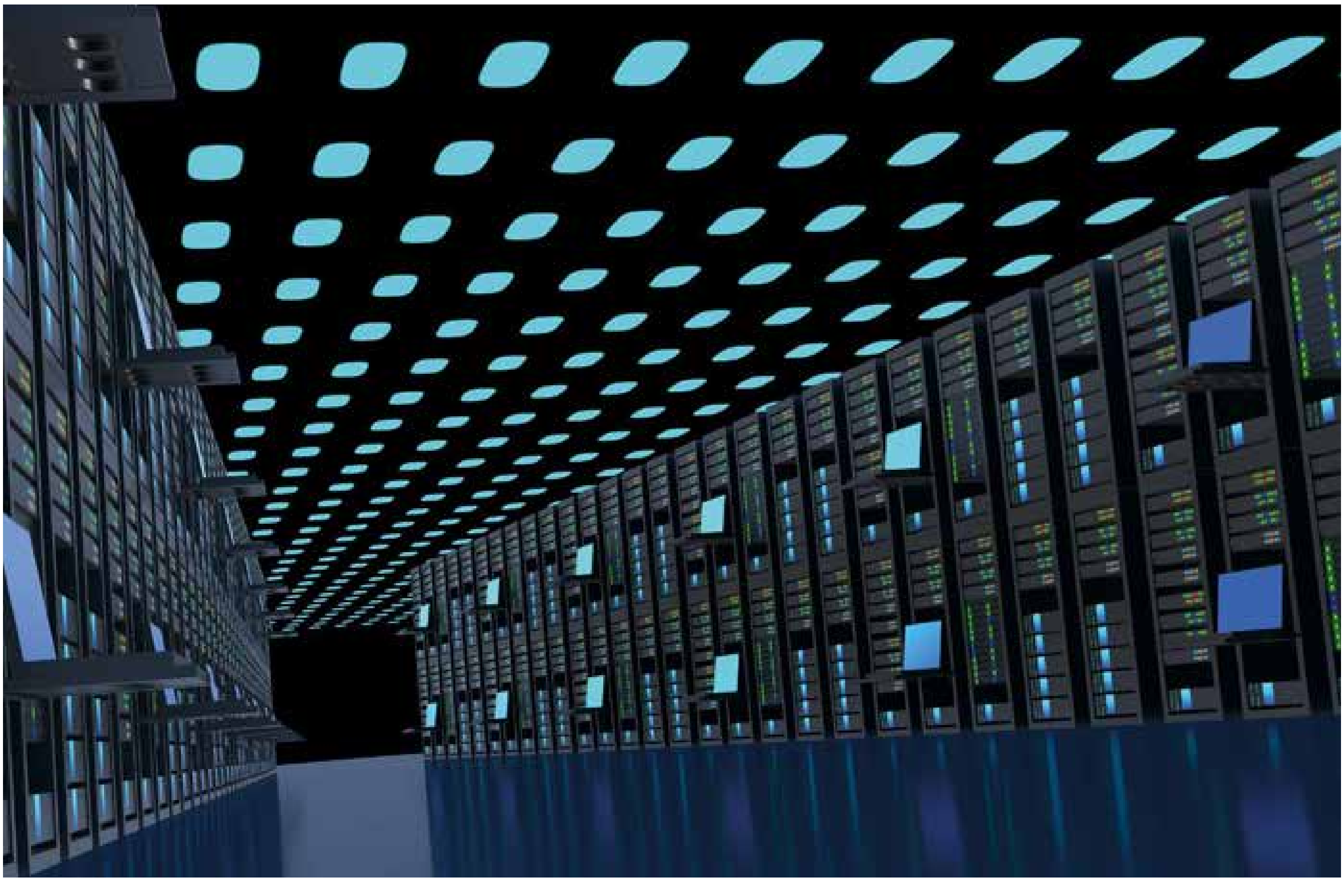
Factor investing: the third pillar of investing alongside active and passive

By Stephen Quance



In brief

This article examines what it means to be active or passive in today's complex investment landscape. As factor strategies increasingly become mainstream, investors face more choices than ever. Adding to the confusion is terminology that is commonly misused when trying to distinguish between strategies. We propose an inclusive framework to help comprehend terms like active, passive and factor investing in a way that aids decision making.

Factor investing is emerging as a third pillar of investing alongside traditional alpha strategies and market cap-weighted indexing. By focusing on the components of portfolio returns that can be controlled, we can distinguish between the three investment options with clarity and purpose. The point is not to dictate which one is best, but instead to aid in understanding of how they differ so that investors can make more informed decisions.

As indexing and factor investing increase in popularity, there has been confusion about what these terms actually mean and whether the strategies are active or passive. A natural first question might be: why does this matter? It matters because factor investing is emerging as a third pillar of investing alongside traditional alpha sources and market cap-weighted indexing. At its core, factor investing represents a breakthrough in fundamental elements of investing, like price discovery and risk and return – and could mark a permanent shift in asset management.

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How we think about and then apply these pillars should fundamentally change our perceptions. But they are often misunderstood, leading some investors to incorrectly dismiss them or solely focus on one over the other. Such misconceptions limit investors' flexibility and capacity to improve their overall investment experience.

The point is not to dictate which option is best, but to provide information that enables investors to choose what's right for them. Each of the three pillars of investing – market cap-weighted indexing, factor investing and alpha strategies – offer distinct advantages and disadvantages (table 1). Each plays a valuable role in the investment ecosystem, and each can therefore be an attractive option given the right set of circumstances. Equipped with this framework to focus on what is possible to control and a proper perspective on what it means to be active and passive, investors can make better decisions and improve their overall investment outcomes.

Components of portfolio returns as criteria for comparison

We can simplify the discussion by dissecting portfolio returns into four components: (1) market returns (2) asset allocation returns (3) return from active management (or alpha) and (4) drag from fees. From these four components, we must also identify what can be controlled and understand what cannot. Individual investors cannot control market returns. No matter how badly we want to, we can't force German bunds up or down tomorrow. This simple fact frees us to think about market returns only in the context of what might happen and how our portfolio will react. On the other hand, we do have control over asset allocation, active management and fees. Thus, much of our decision making should focus on these areas.

As Brinson, Hood and Beebower (1986) first documented, asset allocation explains quite a lot of long-term performance variation. Luckily, there is valuable and publicly available information we can use to help decide on an allocation – the market portfolio.

The market portfolio is a theoretical collection of all listed assets, weighted according to size. It is completely diversified and only vulnerable to systematic risk, whereby new developments affect different segments differently. In liquid, publicly traded markets, the current price is the clearing price between all buyers and sellers, reflecting the aggregate assessment of every investor.

If a preponderance of investors think US stock markets are overpriced compared to others, for example, they will tend to sell in the US and purchase

Table 1
The three pillars of investing

		Active or passive: vs. market	Active or passive: vs. benchmark	Control points: Active performance drivers	Costs
Market cap-weighted indexing		Passive	Passive	Market (none)	Lowest
Factor investing	– Indexing (Smart Beta)	Active	Passive	Factor allocation	Low
	– Managed/Customized Factor Strategy	Active	Active	Factor allocation and/or implementation	Moderate
Alpha seeking strategy		Active	Active	Active allocations and/or active management	High

Source: Invesco. For illustrative purposes only.

somewhere else, thus putting downward pressure on US equity prices. So even though there is much more to the story, the market portfolio is an informed starting point.

Passive investing
We now have the start of a robust definition of a passive investment. In passive investing, key decisions are made not by individuals, but by aggregate market participants using, and benefitting from, competitive buying and selling forces. Most passive investors have decided, whether implicitly or explicitly, that the market portfolio is good enough. Perhaps market returns suffice to help them meet their investment goals, or maybe the investors don't have the appetite to risk underperforming the market. So, they opt to accept what the market dictates.

Allowing the market to set asset allocation
Referring back to the three components within our control – asset allocation, active management and fees – passive investors allow the market to set their allocation for them and employ no active management. What's left? Fees. For passive investors, fees are the only thing left within their control. This is why fee levels are such a particular focus for them. Warren Buffet famously advised his wife to invest in low-cost passive funds in the event of his death. So why would one of the world's most accomplished active investors would say this? Even after committing the vast majority of his multi-billion US dollar fortune to charity, Buffet's wife is at no risk of running out of money unless she makes foolish decisions. Market returns seem good enough, with any deviation simply adding risk.

But, for everyone who has less than an extreme overabundance of resources, making the decision to invest passively might not be so straightforward. A little extra gain over time could make the difference between a pension fulfilling its promises or telling workers that it cannot hold up its end of the bargain. Due to the power of compounding, seemingly small differences add up over time. Consider, a 1% difference in return (from 5% to 6%) over an investment lifetime of 25 years ultimately leads to 33% more wealth. Of course, this cuts both ways, so fees matter and risk control is critical as well. For most investors, the stakes are high.

From the above discussion we understand the passive investor's focus on fees. But low fees alone do not define passive investing. Under this definition, holding a single stock in a portfolio would be passive. It ignores the asset allocation component, which we know has a major impact on return variation, and ignores risk.

How then do we further define passive investing in a way that can be helpful?

Is passive only against the index?
When it comes to passive investing, we must have context. Remember, the market portfolio is the asset allocation of aggregate investors, rather than just a random group of securities. This means that, if a portfolio deviates from the market portfolio, it has an active component, whether intentional or not.

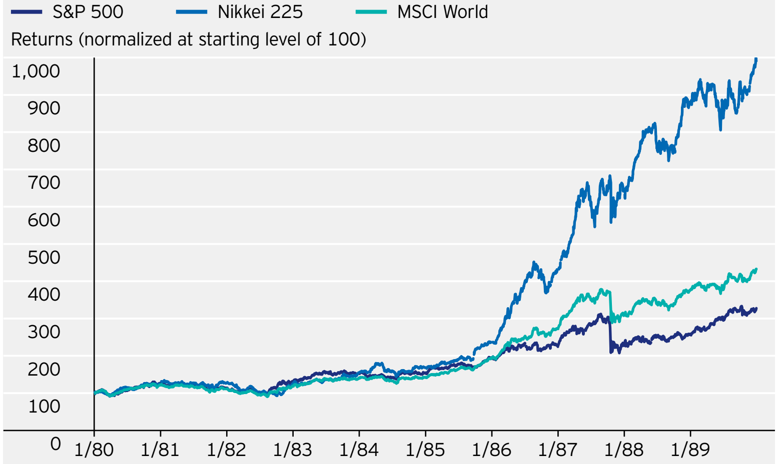
For instance, a fund with the objective of tracking the S&P 500 Index is passive only with respect to

Box
Historic example: Comparing passive strategies by asset allocation
Allocation has a major impact on returns, which gets magnified over time. From 1990 to 2017, the S&P 500 Index returned an annualized 9.8%, for a cumulative return of 1,270%. If you instead invested in the MSCI World Index, opting for global exposure, your total return would be significantly less – an annualized 6.8% or 529% cumulatively.*

Let's suppose you had opted to invest in the Nikkei 225 Index. It is easy with hindsight to caution against such an investment, but by the end of 1989 the Nikkei had dominated both US and global returns for many years, much the way the US has dominated more recently. In the 10 years ending 1989, the Nikkei was up 891%, dwarfing the returns of the MSCI World Index (333%) and the S&P 500 Index (407%) (figure A). The passive investor tracking the Nikkei 225 from that point onward would be sorely disappointed, however, as the index dropped 25% in price and delivered a total return of just 1% over an almost 30-year period (figure B).

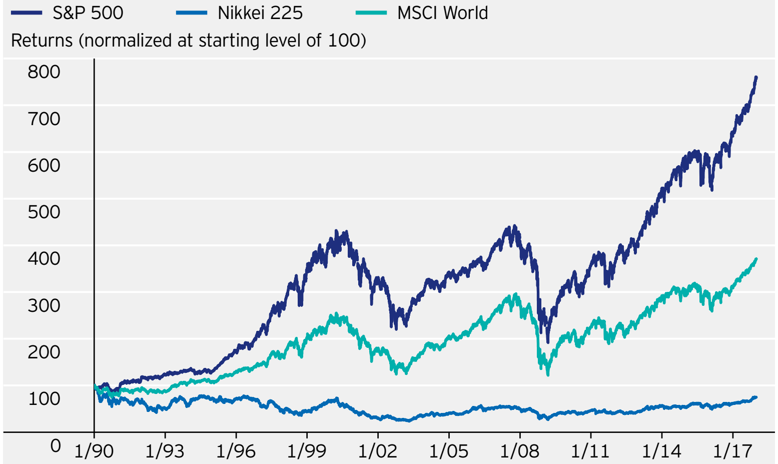
Many core investment principles are at work in these examples. First, asset allocation really does matter a lot. An S&P 500 index fund may be passive with respect to the index but is active when considering the full opportunity set. We are also reminded that past performance may not be predictive of future performance, and, as seen in the case of Japan, even long-term trends can change.

Figure A
Comparing index returns (1980-1989)



Source: Bloomberg, Invesco. Data from 1 January 1980 to 31 December 1989.

Figure B
Comparing index returns (1990-2017)



Source: Bloomberg, Invesco. Data from 1 January 1990 to 31 December 2017.

* Source: Bloomberg. Indexes cannot be invested in directly; all returns in USD and excluding any fees.

that specific benchmark. The index is essentially the 500 largest stocks in the US, weighted by market cap. There is no active management component. Instead, index returns drive the fund's return and the asset allocation tracks any constituent or weighting changes in the S&P. But the same investment could not be considered passive when compared to a global opportunity set. In that scenario, it is in fact very active. US stocks were 52% of the MSCI ACWI IMI Index, for instance, so the S&P fund ignores half of a global equity opportunity set.[1]

An investment designed to track an index is passive only against that index, but the index itself may be very active in certain respects.

A helpful understanding is emerging from our discussion. The first point is to focus on elements of an investment that can be controlled: asset allocation, active/passive decisions and fees. The second point is recognition that what is active and what is passive requires some context. An investment designed to track an index is passive only against that index, but the index itself may be very active in certain respects. Only by understanding the ways in which an investment is active can we identify the applicable risk and return opportunities. Crucially for investors, this unlocks new insights into what could potentially go right, or wrong, with an investment.

Active investing
Moving on from the asset allocation discussion, we now address the next item within our control: active management. Active management is the opposite of passive. Rather than passively accepting market returns or a market-dictated asset allocation, investors can actively pursue their own unique strategies. Historically, this is what was expected from professional money managers: to use skill, experience, knowledge, or some sort of advantage to produce a better outcome.

A zero-sum game
The term alpha is used to describe excess return generated versus a benchmark. It simply refers to the positive performance not explained by the other three elements of returns: market returns, asset allocation and fees. Alpha could come in the form of higher returns, lower risk or some combination of the two.[2]

A key reality of alpha-seeking active managers is that, if there are winners, there must also be losers. If one manager produces a return stream that demonstrates positive alpha, someone else must have inferior returns, because the market incorporates all investors. This is what is meant when people say active management is a zero-sum game. All above benchmark returns must, by definition, be balanced by below benchmark returns somewhere else. And this is before accounting for any fees. With that in mind, it should not be surprising to anyone that capturing alpha is difficult – though that has not stopped investors from trying. In the United States alone, active management accounts for more than three-quarters (or USD 11.3 trillion) of open-ended funds, excluding money market and fund of funds.[3]

Seeking to exploit an advantage
Understanding the role of active management helps investors select and evaluate potential managers. What investors should want from alpha-seeking managers is for them to actively exploit advantages for their benefit. What they should not want is unnecessary barriers that reduce the manager's ability to do so. For instance, if there is a manager that can add alpha in Korean equities, investors should not want that manager to invest outside this area of expertise, e.g. to suddenly consider the entire global equity market.

Put another way, think about firefighters. If you have a group of highly trained, highly skilled firefighters, you do not want them doing other jobs, even if that means spending a lot of time waiting around between fires. Instead, we want them to focus on what they are good at, and we evaluate them in this light.

An understanding of the sources of alpha also improves one's ability to monitor and evaluate the manager. Scalability of the alpha, for example, can be estimated. If the manager captures alpha by dynamically changing the asset allocation across markets, this strategy will have a much different capacity than a manager who invests in small companies of a single country, or illiquid high-yield bonds. While reviewing investment performance, managers should relate the outcome drivers to the process – elements which they control – rather than elements completely out of their control. In short, the manager owes a candid explanation identifying the active elements of the strategy and the impact the active management had on performance.

Always assess in context
Similar to passive investing, it is often helpful to add context to active management. Take the example of the Korean equity manager. We would naturally benchmark the achieved performance to a Korean equity index. Why? Because the allocation decision to focus on Korean equities was not made by the manager, it was made beforehand when the decision to hire a Korean equity expert was made. If Korean markets outperform other markets, the Korean manager doesn't get credit – much as he should not be blamed if the Korean won declines against other currencies. Therefore, the alpha generated is most appropriately evaluated in the context of Korean equities generally.

In this situation, we are clear as to whether we have an active or passive asset allocation to Korean equities and whether or not active management within Korean equities is doing what we hoped. We control both the asset allocation and the active/passive decision.

Factor investing
We are now ready to address factor investing. A brief definition is warranted to ensure a common understanding. Factor investing is a systematic, evidence-based approach that targets certain

characteristics of an asset, called factors, which tell us something useful about the security's expected return or risk.

We can specifically structure a portfolio around an investment factor. Some of the most common investment factors are value, momentum, quality and size. Meanwhile, macroeconomic factors, like unemployment and inflation, enable investors to assess how exposed their portfolios are to different stages of the economic cycle, similar to a doctor collecting information to diagnose a patient's condition (figure 1).

> Factor investing unlocks an improved understanding of markets and asset allocation, and might thus be considered a third pillar of investing.

Factor investing unlocks an improved understanding of markets and asset allocation, and might thus be considered a third pillar of investing. Previously, we looked primarily at asset classes – like stocks, bonds, cash – and also at sectors and other characteristics to understand the expected risk and return sources of the portfolio. Rigorous academic research has pushed the understanding further, illustrating how factor exposures help explain more of historically observed security returns. Factors, at least the ones that we have confidence are worth monitoring and pursuing in a portfolio, also have a solid economic rationale. Because factor investing is based on improved understanding, its increasing adoption throughout the world likely marks a permanent change in how assets are managed.

Utilizing active asset allocations

How do we fit factor investing into our active/passive framework? To a degree, factor performance is like market performance. Just as nobody can control whether European stocks go up or down today, there is no way to say for sure whether a premium on value or size will persist. Banz (1981) documented that small-cap stocks historically generated higher risk-adjusted returns, for example, and while the research tells us we should expect the size premium to be material and positive in the long run, it is less predictable in the short term. Factor returns are therefore out of our control in the same way that market returns are out of our control.

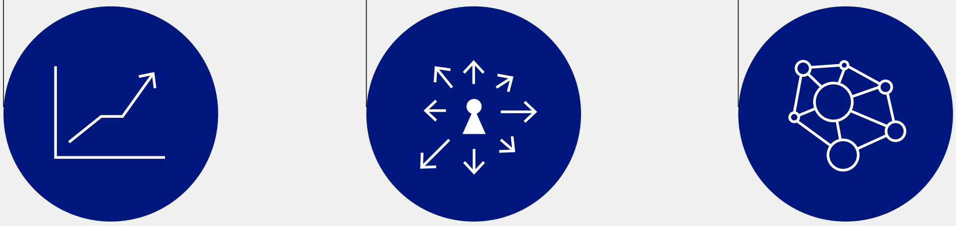
But we still have control over asset allocation, active management and fees. Since investment factors help us improve our risk and return expectations, our allocation to them is important. Most investors still don't monitor the factor exposures of their portfolio, nor do they deploy factor-specific strategies. This is changing quickly, however.[4] Someday it may be as common for investors to monitor their investment factor exposures as it is currently for them to monitor their equity, bond and cash allocations.

The market portfolio has an allocation to factors in much the same way that it has an allocation to different countries. We can use our understanding of the risk and return opportunities of factor investing to adjust our allocation, increasing or decreasing the exposure to one or more investment factors. This is an active asset allocation decision, just as it is an active decision when we reweight country exposures.

Figure 1
Common investment and diagnostic factors

Source: Invesco. For illustrative purposes only.

Figure 2
Three groups of factor rationales



Risk premiums — For bearing additional risk over the broader market e.g. an undesirable return pattern

Behavioral rationales — Markets are inefficient due to behavioral biases of participants

Market structure — Markets may be distorted because of restrictions and limitations

Source: Invesco. For illustrative purposes only.

Accommodating unique objectives without winners or losers
However, it is different than alpha-seeking strategies. Unlike active investing, factor investing is not necessarily a zero-sum game. The reason is simple: whereas in tradtional active investing, everybody pursues the same goal of beating the index, factor investing can cater for different investors' needs and preferences. Factor strategies can be easily customized to an investor's individual goals and risk tolerance.

There are three groups of factor rationales: risk, behavioural and market structure (figure 2). If a factor premium exists because of some element of risk, then an investor's desire to bear or avoid this particular risk is a matter of choice. Investors who achieve higher returns for bearing this risk do not do so at the expense of other investors who may well be happy with lower returns because it was their choice to follow a less risky approach. We have riskier and more conservative portfolios. Similarly, if a factor premium is believed to be available due to a market structure impediment, investors who are not subject to the impediment can benefit. In these ways, among others, factor investing is distinct from traditional active management, and certainly distinct from passive.

Providing advantages through flexibility
With these distinctions, we can make informed choices: to be active or passive in asset allocation and/or portfolio management, and at what cost. Once we decide whether to actively or passively allocate across factors, we can decide whether to actively or passively manage the allocation. Most smart beta strategies are passive exchange traded fund (ETF) applications relating to a single or multi-factor index. Remember, the index construction is making active factor bets that should be understood, as these bets are likely to be a driver of performance. These ETF applications might be attractive because of transparency. The index construction methodology is usually available and straightforward. A more active application allows for unique factors, differentiated definitions of factors, ongoing trade-offs between factor exposures and/or evolution of the process as new techniques are developed. We know the world is constantly changing, so there might be real advantages to having flexibility available to achieve active implementations.

Last, but certainly not least, are fees. There is no question that fees directly impact performance in a negative way. But, do not be fooled into thinking cheaper is always better. Nor should we accept that higher cost always means better outcomes. All we can do is consider both the costs and the benefits of any investment. True alpha is a relatively scarce resource and, as mentioned above, requires some sort of advantage. We should not expect this valuable benefit to be given away. There should be a balance between alpha and the cost to capture it. Factor strategies can potentially add returns and/or control risk in ways pure indexing cannot. Therefore, the optimum should be somewhere between pure alpha and indexing. Traditional passive indexing involves no added value, so it is mostly about low cost.

Conclusion
Whether we classify a strategy as passive or active requires context. There is an active element in any strategy that materially differs from a market portfolio, because the market portfolio is determined largely by competitive buying and selling of all market participants, particularly in equities. Asset allocation explains a lot about risk and return, so it should be determined deliberately.

Taking an active or passive approach to asset allocation is likely to make a big impact on results in the long term. Active management can be used in an attempt to supplement returns or as the basis of alpha-seeking strategies. Finally, fees are important and should be judged in relation to the benefits offered by a particular approach. Skill is very valuable and should be priced appropriately. Market exposure should be relatively inexpensive. Factor investing, is a third distinct approach with its own advantages and disadvantages. Depending on the application and complexity of approach, it usually lies somewhere between the other two options in both expected value-add and cost.

References

- Banz, R. W. (1981): The relationship between return and market value of common stocks.
- Brinson, G., Hood, R., Beebower, G. (1986,): Determinants of Portfolio Performance.

About the author

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Stephen Quance promotes the global factor initiative by supporting clients, aiding research, setting strategy, refining operations and increasing education both internally and externally, primarily in the Asia Pacific region.

Notes
1 As at 29 December 2017. Source: MSCI. MSCI ACWI IMI Index is designed to cover approximately 99% of the global equity investment opportunity set.
2 These examples are intended to be illustrative and are not an exhaustive list of objectives.
3 Source: Morningstar data as of 15 December 2017.
4 Invesco's Global Factor Investing Study 2017 examined the change in factor allocations globally. In 2017, institutional investors increased allocations in North America (16% AUM to 19%), Europe (17% to 19%) and Asia Pacific (7% to 10%).

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