Active or Passive?
The Great Financial Debate

ESSAYS

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About

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ABSTRACT

Active or passive? Is an investor better off buying a diversified pool of assets that tracks the average market return, or trying to beat the market through skill and ingenuity? This great debate has reached its zenith, as the widespread uptake of passive index funds has become the defining feature of today’s financial markets. No shortage of pundits have had their say. But alas, the average retail investor is arguably no closer to understanding the true differences of each approach, or the best means of approaching their own investment endeavours. What follows is an overview of our attempt to change that situation. In a four-part series, we hope to provide a more thoughtful and tangible answer to the question of which strategy – active or passive – is more effective for building wealth. We seek to educate readers of important investing concepts and ideas, rather than provide bland and superficial commentary of recent financial events. Overall, our work is intended for both a general and professional readership, but in order to stem any incidence of boredom, we will guide readers to the most relevant sections.

In Part I: A Dynamic Theory of Financial Markets we explore the theoretical foundations of this tension between active and passive. Namely, whether financial markets are inherently efficient or inefficient allocators of capital. We begin with a primer on index funds, including their history, nature and different structures. We then explore the arguments in favour of efficient and inefficient markets, before outlining our own dynamic theory of capital allocation. We find that this intellectual divide is somewhat of a red herring. Not only is it more accurately described as a division between value or fundamental-driven investing, on the one hand, and momentum or price-driven investing, on the other. But the relationship itself is more akin to the economic balance between supply and demand. Both bottom-up processes draw on tacit individual knowledge to create spontaneous economic and financial orders. In other words, rather than a struggle between two opposing ideologies, active and passive are dynamic and complementary forces. Together they discover the average return on assets and allocate capital efficiently through time.

In Part II: Are Index Funds Creating a Bubble? we show that the uptake of increasingly exotic Exchange Traded Funds (ETFs) is a sign that investors have become overly complacent. We find that such products are a manifestation of speculative behaviour, rather than a cause of it. However, we also find that many of these funds offer the same false promises of liquidity and diversification as the infamous Collateralised Debt Obligations, which predominated prior to the global financial crisis.

In Part III: A Wealth Management Playbook we aim to translate these findings into a framework for assessing the suitability of different investment approaches. In particular, we grapple with the question: if both active and passive are legitimate investment strategies, how is an investor to choose between them? We begin by cataloguing the entire universe of investment opportunities according to strategy, product and asset class. We then outline some of the challenges of active management and how it does not guarantee outperformance – only the prospect of outperformance. Most importantly, we show that the only people who are truly capable of identifying a quality active manager (one who will consistently beat the market over time) are the active managers themselves. We then devise a needs-based framework to show that the best approach to capital allocation is intrinsically tied to the unique circumstances and ability of every investor. In other words, there is no such thing as one superior strategy. Rather, there is a spectrum of potential approaches that cater to the particular needs and competencies of every investor. We then define four investor categories according to their preference for absolute or relative performance and high or low-cost access to returns. We show that, even within the current high-risk environment, the majority of people are ideally suited to passive management. Finally, in Part IV: How to Succeed as a Retail Investor we conclude with a broad how-to-guide for executing this approach.
PART I: A Dynamic Theory of Financial Markets

1. The Active vs. Passive Debate

Introduction

How often have you asked yourself the question: is it worth me holding onto these Telstra shares my parents gave me? Is there a better option to earning such a paltry return on my savings? Does anyone know a good fund manager? Or what the hell are people talking about when they refer to “index funds” and “ETFs”? These questions are not only common, but reflect a deeper tension that underpins every facet of wealth management. Namely, whether an investor should be an active or passive manager of their capital. What follows is part one of our four-part exposé on the debate between active and passive management; a subject upon which no shortage of professionals have had their say.1 Passive management, in this sense, refers to the buying and holding of a diversified pool of assets that tracks the average market return. Active management, in contrast, denotes the effort to “beat the market” through skilled selection of financial securities. In brief, we are bullish on capital allocation – be it active or passive – but bearish on the “fake divide” being propagated at the heart of financial markets. This contest may serve as good fodder for journalists, but we believe it relies on an artificially static view of the investment world. Instead, we seek to outline a dynamic theory of capital allocation. To underpin this thesis, we begin with a broad survey of the nature, history and intellectual foundations of both passive and active management.

A Primer on Index Funds

Active management is well known, having been popularised by the riches and exploits of financial titans like George Soros and Warren Buffet. Passive investing, however, is less well understood, having only originated with index funds in the 70s and propelled by ETFs in the 90s.2 In brief, an index fund is an investment portfolio constructed to mirror the average return of a specific basket of assets.3 It achieves this goal by weighing ownership of each underlying security according to its total market capitalisation.4 The fund then periodically adjusts its holdings according to the ever-changing market share of each financial asset. For example, say the listed shares of Xero Limited (XRO) were to increase over the course of this quarter, then so too would its proportionate share of the S&P/ASX 300 index or the All Ordinaries index. By adjusting its portfolio in this manner, an index fund inherently responds to movements in price rather than the underlying economic performance of an asset. Which means that index funds are prone to participating in financial bubbles and speculative euphoria, such as the dot-com boom of the late 90s and the sub-prime real estate bonanza of the 2000s. Index funds, nonetheless, require no professional effort to identify securities according to their investment merit. This means that management fees are much lower than active or professionally managed products. Index funds ultimately enable one to invest in a manner that eliminates the risk of underperforming the market, but also outperforming it. Instead, investors capture the average market return, at the price of a very low management fee.

Passive investors have two options. First, they may purchase units in an investment trust (also known as a managed investment scheme), which pools together investor capital to build a portfolio of an index.5 Alternatively, an investor may purchase shares in a publicly traded Exchange Traded Fund (ETF). Both vehicles seek to track the performance of a predefined basket of assets. The key difference is that ETF investors trade with other market participants if they wish to increase or decrease their holding of the index. While a unit trust investor will transact solely with the fund manager, who then buys (or sells) a relevant number of securities to satisfy the desired contribution (or withdrawal) from the fund. ETFs also have a creation and redemption feature, which ensures that the ETF share price does not stray too far from the underlying market value of the portfolio (also known as the Net Asset Value or ‘NAV’).6 As a result, the ETF capital structure is not strictly “closed”, as is the case with many other publically listed funds.7 ETFs have become particularly popular among institutional investors, who wish to bet on broad market movements, while unit trusts have been the preferred choice of traditional retail investors.8 Both structures have unique operational attributes and offer different things to different investors.9 But for the purposes of this investigation, the most important thing to remember is that the performance of

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3 For an excellent and more complete primer on index funds and practical advice for the average retail investor, see: John C. Bogle, The Little Book of Common Sense Investing: the Only Way To Guarantee Your Fair Share of Market Returns, Wiley, 2007.

4 A firm’s total market capitalisation is equal to the total number of publically issued shares multiplied by their current market price.

5 Managed investment schemes are also known as ‘managed funds’, ‘pooled investments’ or ‘collective investments’. For more information see: http://asic.gov.au/for-finance-professionals/managed-investment-scheme-operators/starting-a-managed-investments-scheme/what-is-a-managed-investment-scheme/

6 If an investor goes to sell their ETF unit on the market, but no other investors are willing to buy it from them, then the ETF provider is required to be the market maker or counterparty to the transaction, at a price relative to the fund’s net asset value (NAV). Such market makers are also authorised to redeem or create units in the ETF. Creation or redemption of units is not a common occurrence for the most actively traded and popular ETFs. Nonetheless, it is still an important consideration for all investors, especially for those investing in thinly traded and smaller ETFs. See the ASX website for more information about buying, holding and selling ETFs, including the role of market makers and other counterparties: http://www.asx.com.au/education/etfs-etcg-courses.htm

7 The shares of a closed end fund also trade on an exchange, like ETFs, but the fund manager is under no obligations to redeem or create shares at a price equal to NAV. Investor contributions or withdrawals may only occur through other willing market participants. As a result, closed end fund shares often trade at premiums and discounts to NAV. For a more complete breakdown of the differences between ETFs, closed end funds and traditional index funds see: https://www.fidelity.com/learning-center/investment-products/closed-end-funds/cefs-mutual-funds-etfs

8 Jack Bogle, “The Lessons We Must Take from ETFs”, December 12, 2016. https://www.ft.com/content/f406d50c-8b45-bb8b1dd5d080

9 A full breakdown of these differences, as well as the relative merits and drawbacks of each structure, is beyond the scope of this essay. However, interested readers should note that there is still much debate around which vehicle is best suited to a particular investor. And we encourage readers to consult the website of any major index fund provider to learn more about the practicalities of each investment structure.
each vehicle is inherently tied to the return of the underlying basket or index of securities. In other words, they are different means of tracking the average return of a pre-defined asset class.

The Shift from Active to Passive

The first index funds were born out of theoretical models and ideas advanced during the 1950s and 1960s. This research was made available to a public audience in the 1970s, with the publication of Burton Malkiel’s landmark book: A Random Walk Down Wall Street. Malkiel’s underlying thesis was that, rather than picking professional fund managers or stocks, the average investor was better off just holding a portfolio of securities that tracks the market return. Around the same time, a man named John Bogle launched the first ever index fund and founded the Vanguard Group, which is now one of the largest passive fund managers in the world. If the case for passively managed index funds has been around for decades, then why the sudden uptick in debate? The reason is that, since the global financial crisis, all asset classes have been enjoying steady and increasing returns – from corporate bonds and equities, to sovereign debt and even Australian real estate. As a result, passive fund managers, such as Vanguard, have attracted record inflows and uptake of their indexing products. At the other end of the spectrum, active managers have suffered record outflows, as they struggle to outperform even the market index. Over the last 12 months alone, $US34 billion has flowed out of actively managed funds and $US442 billion has flowed into passive equity funds, globally. Even the world’s greatest active investor, Warren Buffett, has seemingly run out of ideas, as Berkshire Hathaway – his investment conglomerate – continues to amass an ever-growing pile of excess cash (around 100 billion USD). This broad and seismic shift of capital, from active to passive management, is the defining feature of today’s financial markets.

So why should this be of any concern to the average punter? It matters because if regular investors can achieve stellar investment returns without the helping hand of a professional (via a low-cost index fund) then it raises the legitimate question of what those active managers are getting paid for? Such professionals typically charge very generous fees for outperforming the market and even just for showing up to work. But if most of them can’t even outperform the market, how can they justify such lucrative fees? Accordingly, index funds have not only revolutionised the ability to access returns, they threaten the underlying value proposition of the entire wealth management industry. This includes everything from superannuation funds and private equity managers, to non-profit endowments and investment consultants. Needless to say, the community of active managers has been scrambling to defend their craft and professional fees. Some of the country’s most respected investors have disparaged the entire notion of passive management as “investing for dummies” and “lobotomised investing”. While others have warned the proliferation of index funds is inflating a new financial bubble. So, where does this leave the average investor? Should they steer clear of such “lobotomised” investing products? Or is passive management the preferred option? To answer these questions, we must delve into the theoretical foundations of both active and passive management.

2. Are Financial Markets Efficient or Inefficient?

The Efficient Market Hypothesis

The contest between active and passive is rooted in a deeper intellectual debate about whether financial markets are efficient or inefficient. Namely, whether asset prices inherently reflect or depart from the underlying economic value of an asset. Those arguing that financial markets are efficient, subscribe to a passive management approach. While those claiming that markets are inefficient adopt an active management approach. Even the Nobel Prize Committee appears to have split on this issue, having awarded the prestigious 2013 Sveriges Riksbank Prize in Economic Sciences to both Eugene Fama, the intellectual forefather of the efficient market hypothesis, and Robert Schiller, a key proponent of inefficient markets. Efficient market theorists contend that asset prices always reflect the underlying economic value of an asset, which makes it impossible for any investor to consistently beat the market return. They argue that asset prices always reflect the totality of available information and rational expectations of investors. In this sense, asset prices may only depart from value because of barriers to information or the cost of information gathering and analysis. One only has to observe the instantaneous movement of public equity prices to see proof of just how promptly investors react to every earnings release, industry statistic, or movement in interest rates. The implication of this theory is that investors may only seek to track the average market return; not outperform it.

11 See supra note 10.
12 According to Bloomberg, a little more than a third of all assets in the U.S. are in passively managed funds, up from about a fifth a decade ago. In the first half of 2017, flows out of active into passive funds reached $500 billion: https://www.bloomberg.com/quicktake/active-vs-passive-investing
15 Readers should note that this sum denotes effective cash reserves of around 100 billion USD, with the majority of such funds currently invested in short term Treasury securities. See Berkshire Hathaway quarterly report for more details: http://www.berkshirehathaway.com/qrqfy/2qpdf/17.pdf
16 For instance, the infamous ‘2 and 20’ compensation structure for hedge fund managers, which awarded the asset manager a 2% fee on all assets under, regardless of any performance. Admittedly, this generous remuneration scheme has become much less common since the GFC.
20 https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2013/
Active managers, on the other hand, argue that investors are inherently emotional creatures and susceptible to herd-like behaviour. Asset prices, therefore, often depart from underlying value – sometimes dramatically – which creates opportunities to beat the market return. Such inefficient prices, they argue, stem from the inherent fluidity and subjective nature of economic value. Value is often defined as the sum of an asset’s discounted future cash flows – the key word being future. Since value is derived from events that are yet to happen, and which are inherently uncertain, valuation is necessarily tied to the imperfect assessments of investors. No matter how prepared, skilled or educated an investor may be, they can never be endowed with perfect knowledge of the future. Instead, they must draw upon their unique knowledge and skills to estimate a probabilistic range of potential cash flows over the life of an asset. Such judgments are gleaned from all of the available information, both past and present. But each investor, they argue, necessarily interprets the same pieces of information differently, and thereby assign varying degrees of probability to each potential outcome. In this sense, information is not simply a commodity, but a means of forming an opinion or expectation about the future.

And, therefore, it is the way that investors interpret such information that matters and which can often lead to irrational prices and opportunities for profit. Ultimately, active managers believe that asset prices are an amalgamation of competing views and opinions about the future and that those endowed with superior insight and judgment can in fact beat the average market return.

The Case for Active Management

A common argument against the efficient market hypothesis is that many investors have been able to consistently beat the market over time. If financial markets were truly efficient, they say, then it would be impossible for investors like Buffett to have amassed such staggering wealth. But in the early 1980s, Michael Jenson, an esteemed professor of corporate finance, argued that such performance could be chalked up to a simple coin tossing experiment. Imagine a very large population of coin flippers, he said, who agree to wager on the correct toss of a coin, each and every day. An incorrect wager would force that person out of the game, while a correct wager would allow them to proceed to the next coin toss. If you started with a population of 225 million people, then after 10 days, you would be left with about 220,000. And after 20 days, you would be down to about 215. The most successful investors, Jenson argued, are analogous to this crop of surviving coin flippers. They are the statistically necessary outcome of a simple probabilistic experiment. In other words, they are just plain old lucky. Jenson’s coin tossing analogy inspired a response from none other than the Oracle of Omaha himself. In a now famous lecture, Buffett cheekily noted that 225 million coin flipping orang-utans would also produce the same result. But at the end of the 20 days, if you found that the majority of those orang-utans hailed from the same zoo, then you might want to find out what they were eating! Buffett proceeded to show that a disproportional share of the most successful “coin flippers”, in the investing world, also hailed from the same “zoo”. Namely, an investment tradition inspired by the teachings of Benjamin Graham and David Dodd. These “Super Investors of Graham and Doddsville”, Buffett said, reflect a concentration of winners that could not be explained by a simple probabilistic game of chance or luck.

The Case for Passive Management

Buffett’s rationale is often touted in support of active management and the idea that financial markets are inefficient. Investors can in fact beat the market, they say, by applying the tried and tested investing principles of Graham and Dodd. But at this year’s annual meeting of Berkshire Hathaway shareholders, Buffett opened his usual remarks by acknowledging a certain attends to their contribution to the wealth management industry. That person was none other than Jack Bogle (creator of the world’s first index fund and founder of the Vanguard Group). What is Buffett doing raising a toast to the world’s preeminent passive fund manager? Well, it gets even more confusing from there. He then told the near 40,000 Berkshire devotees that the vast majority of investors should avoid trying to beat the market and instead put their hard-earned capital in a broad index fund. He also noted in a 2014 letter to shareholders that, upon his death, the trustees of his estate have been instructed to invest in a S&P 500 index fund for his wife’s benefit. Buffett said that the “long-term results from this policy will be superior to those attained by most investors – whether pension funds, institutions or individuals – who employ high-fee managers”.

But just as Buffett’s endorsement of passive investing contradicts his earlier response to the Jensen coin flipping experiment? What about the Super Investors of Graham and Doddsville? Moreover, if financial markets can in fact be beaten (and ergo are inefficient), then surely index investing makes no logical sense? How do we reconcile this apparent contradiction?

3. Capital Allocation as a Discovery Process

Momentum & Value Investing

Our answer is that financial markets are neither efficient nor inefficient; they are a combination of both. In other words, both passive and active management are viable and legitimate investment strategies. This apparent contradiction stems from a false dichotomy at the heart of financial markets: that passive and active management are mutually exclusive. The problem with this idea is that each approach necessarily relies on the prevalence of the other in order for it to succeed. Passive investing inherently relies on the rational effort of others to ensure that asset prices remain efficient, and thereby generate the average market return. On the other hand, active investing relies on irrational and uninformed investors to create inefficient markets and, therefore, opportunities to beat the market return. To put it more simply, because passive investors are motivated by price rather than value, they are dependent on active investors to ensure that prices do not detract from value. Similarly, because active investors are motivated by value rather than price, they are dependent on passive investors to create disparities between price and value. Hence, active management is impossible without passive, and passive is impossible without active.


21 This tradition of value investing began with the publication of Security Analysis by Benjamin Graham and David Dodd in 1934.

Accordingly, we view the tension between active and passive management, not as a contest between two conflicting ideologies, but as a marriage between two complementary forces of capital allocation. Between momentum or price-driven investing, on the one hand, and value or fundamental-driven investing, on the other. This relationship is also borne out of the academic literature, which shows that value and momentum based returns are negatively correlated both within and across asset classes. Furthermore, the relationship makes intuitive sense if we consider the fact that expected returns on an asset class are likely to decline as a market becomes populated with more passive investors, while expected returns are likely to increase with more active investors. In other words, as more price-motivated (momentum) investors enter a financial market, they are inherently compelled to purchase more and more of the same securities and thereby reduce the prospect of being adequately compensated for the risk borne. On the other hand, as more fundamental-driven (value) investors populate a market, the prospect of returns is likely to increase for the level of risk borne, as more and more investors insist on buying assets at a discount to intrinsic value.

**Key Drivers of the Return on Capital**

*Dear reader, the rest of this section is highly technical (and rather dry). We encourage the non-professional reader to skip through to Part I.IV*

We believe the complementary forces of active and passive may be modelled in a manner akin to that of economic supply and demand (See Figure 1). The relationship between expected return on assets (E) and the total number (Q) of passive investors in a financial market, may be modelled by a downward sloping curve (Momentum), while the relationship between expected returns (E) and the number (Q) of active investors may be modelled by an upward sloping curve (Value). The point at which these curves intersect denotes a financial equilibrium, whereby the total number of active and passive investors (QE) is such that asset prices equate to underlying economic value and expect to yield the average return on assets (E).

We posit that the slope of the Momentum curve is determined by the size of an asset class, whilst the slope of the Value curve is a function of profitability. Given that smaller businesses tend to generate higher returns than larger companies, expected returns will be lower in a financial market comprised by larger assets (as represented by a more rightward point along the Momentum curve), whilst a smaller asset class would expect larger returns on capital (as represented by a more leftward point along the Momentum curve). Similarly, a more profitable asset class would expect higher returns on capital (as denoted by a more rightward point along the Value curve), while a less profitable asset class would expect lower returns (as represented by a more leftward point along the Value curve).

![Figure 1: A Mental Model of Financial Markets](image)

Asset size and profitability determine the expected return on assets by way of movements along the Value and Momentum curves. But an entirely new point of equilibrium, from a shift of the Value or Momentum curves, would only be possible through a change in the overarching investment patterns of an asset class. For example, an increase in the number of new business entrants would result in a rightward shift of the value curve, as prospective returns are competed away by the presence of additional profit seeking entrepreneurs. Similarly, an exodus of businesses would cause a leftward shift of the value curve, as fewer market participants and less competitive pressures would expect to yield higher returns for investors. On the other hand, a change in the aggregate time preferences of investors would cause a shift of the Momentum curve. Thus, an effort by central bankers to decrease the supply of money or raise interest rates would cause a rightward shift of the Momentum curve, as investor time preferences are pushed back to the future. In this sense, higher interest rates would actually stimulate, rather than depress, risk taking behaviour, because a

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24 Risk, in this sense, is the likelihood that an investor will suffer a permanent loss or impairment of their capital. Risk is not a function of volatile asset prices – as it is commonly defined – but the fact that more things can happen than will happen in the world of investing. We revisit this notion of risk in further detail in Part II.I

25 Similarly, a decline in the number of momentum investors is likely to cause asset prices to decrease and expected returns to increase, while a decline in the number of value investors is likely to cause asset prices to rise and expected returns to fall.

26 Note that this model may explain why recent interventions by developed nation central banks to increase the money supply and depress interest rates have actually failed to generate meaningful capital investment activities – as opposed to rising asset prices.

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smaller portion of capital is needed to satisfy investor demand for savings.27 The purported impact of asset size, profitability and investment patterns on the expected return of assets is also borne out by the academic literature.28 Overall, we believe that this mental model accurately reflects the true economic character and trade-off between active and passive management, as well as the underlying causes of the return on capital.

Cycles: Short & Long Term Efficiency

"I think it’s essential to remember that just about everything is cyclical…. Nothing goes in one direction forever. Trees don’t grow to the sky. Few things go to zero" – Howard Marks.29

Our characterisation of active and passive, as an equilibrium or balance between momentum and value investing, is reminiscent of an idea expounded by Benjamin Graham – the father of value investing. Graham observed that in the short term, financial markets are voting machines, but in the long run they are weighing machines.30 In other words, asset prices often diverge from economic value because of the irrational behaviour of investors. Human nature and psychology cause investors to overreact and underreact in their capital allocation decisions, which then leads to fluctuations in asset prices and inefficient market outcomes. Over the long run, however, asset prices tend to revert back toward underlying economic value, as relevant information is dispersed, digested and acted upon by rational individuals. In this sense, financial markets are inefficient and irrational over the short term, but they are efficient and rational over the long term (as opposed to being one or the other). Therefore, just like economics, everything in investing moves in cycles. Financial markets innately swing from boom to bust, peak to trough, and euphoria to depression. These cycles are akin to the swinging movement of a pendulum,31 whereby the midpoint represents a moment when asset prices reflect underlying economic value, and expect to yield the average return on assets.

The best hallmark of an investment cycle is the propensity for risk. Risk, in this sense, is the likelihood that an investor will suffer a permanent loss or impairment of their capital.32 Risk (and safety), therefore, are not a function of asset quality, but of the price paid. The prevailing appetite for risk is what drives the level of irrational market behaviour and the extent of inefficient market outcomes over the near term. For example, an increase in risk appetite would invoke a movement below the point of equilibrium; while an increase in risk aversion would reflect a movement above the long run expected return. In the former case, higher risk appetites would encourage investors to buy up assets at higher prices, as denoted by an increase in the number of momentum investors. It could also denote a decline in the number of value investors, caused by the impact of prejudice or bias on their decision making. On the other hand, increased risk aversion would encourage investors to demand a greater divergence between price and value (a margin of safety), as reflected by a movement up the value curve. It could also denote a movement up the momentum curve, as a result of an unwillingness of investors to buy any assets at all, due to fear or panic about the future.

As noted by Howard Marks, “cycles are self-correcting, and their reversal is not necessarily dependent on exogenous events. They reverse (rather than going on forever) because trends create the reasons for their own reversal”.33 Therefore, over the long term, financial markets will inherently revert back toward equilibrium. The duration and extent of the cycle (or inefficiency) will depend on barriers to access and interpretation of information by investors. But so long as investors remain irrational, conformist, insecure, and inherently flawed, so too will cycles and inefficiencies continue to dominate the investment landscape. This understanding of the capital allocation process reveals a clear culprit in the false debate over active and passive management: the ignorance of time. Without time, it is impossible to understand the dynamic nature of financial markets. The process by which momentum and value investors interactively discover prices that approximate value and expect to yield the average return on assets. Such long run efficiency is akin to the economic balance of supply and demand. In the latter case, producers engage in a competitive process to yield the most efficient allocation of resources in an economy. In the former, value investors engage in a competitive research and analysis process to allocate capital efficiently through time.34 Both bottom-up processes innately draw on the tacit knowledge of individual circumstance to create spontaneous economic and financial orders.35

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29 Howard Marks, The Most Important Thing Illuminated, Columbia Business School, 2013, pg. 81
31 See supra note 29, Chapter 9.
33 See supra note 29, pg. 82
PART II: Are Index Funds Creating a Bubble?

Proliferation of Unconventional ETFs

A seismic shift of capital from active to passive management is eviscerating financial markets. This trend is no more obvious than in the widespread uptake of publicly listed Exchange Traded Funds (ETF). The topic up for consideration in part two of this four-part study of active vs. passive is whether ETFs are making financial markets more efficient or less efficient. More simply, do ETFs improve our ability to gain exposure to market returns, or are they encouraging undue risky behaviour and a new financial bubble? To jump to the punch line, we conclude that ETFs are less a cause of irrational exuberance, than a manifestation of it. Nonetheless, we also believe that investors should be increasingly wary of the risks inherent to certain niche ETFs.

After their conception in the early 90s, ETFs remained relatively dormant in the financial world until the late 2000s. Today, around $5 trillion is invested in these vehicles globally with about 70 per cent of them in the US. In Australia, ETF assets have grown to almost $30 billion or 15-fold over the last decade. Such robust demand has propelled the creation of increasingly esoteric indices and products. For instance, consider the $3m Obesity ETF, which invests in pharmaceutical companies, weight-loss products, and plus-size clothing retailers. Or the $38m Inspire Global Hope Large Cap ETF, aimed at Evangelical investors, which screens out companies involved in gambling, alcohol, pornography or that support LGBT rights. The US securities regulator has even granted approval of a quadruple leveraged ETF (the Force Shares Daily 4X US Market Futures Long Fund), which aims to produce four times the daily performance of the S&P 500 futures index. Industry leader Vanguard has also joined the party, recently seeking approval of a new Total Corporate Bond ETF, which would wrap up a number of their other passive debt funds into one convenient product (in other words, it would be an ETF of ETFs)! According to Strategas Research Partners, there are now more indexing products in the world than there are stocks themselves.

False Promises of Diversification

“Risk cannot be eliminated: it just gets transferred and spread. And developments that make the world look less risky usually are illusory, and thus in presenting a rosy picture they tend to make the world more risky” — Howard Marks.

In 1952, future Noble prize winner, Harry Markowitz, had a celebrated insight. He discovered that the risk of investing in any type of financial security is not a function of its volatility, but the extent to which that volatility may be diversified away by holding a portfolio of securities. In other words, he discovered that investors could reduce risk by holding a diversified pool of assets. This seemingly obvious insight is just another way of saying: “don’t put all your eggs in one basket.” We take umbrage with Markowitz’s idea that risk is a function of asset price volatility, rather than the likelihood of suffering a permanent loss or impairment of capital (we are not alone in this regard). But even within our own definition of risk, the principle of diversification and its purported benefits still hold. An investor may reduce their risk by holding a portfolio of securities in which the economic drivers of asset performance are not perfectly correlated. The key point is that assets must be uncorrelated in an economic sense, rather than a volatility sense, in order to yield the intended benefits of diversification. In fact, believing that a portfolio is less risky because asset prices are uncorrelated has proven to be one of the greatest tragedies of modern finance.

Such false diversification was exemplified by the proliferation of Collateralised Debt Obligations (CDOs) prior to the global financial crisis. CDOs are a type of structured finance vehicle that seek to bundle up other debt products into a single income stream. During the US housing boom, investment banks used CDOs to repackgate income or repayments from subprime mortgage bonds. They then marketed these “safe” products to institutional investors, along with a stamp of approval from the US ratings agencies. Such CDOs would pick out a certain tranche (or portion) of home loans from a large pool of mortgage bonds and then repackgate those tranches into a new “diversified” pool of assets. The problem was that such tranches all had the same underlying risk profile, which meant that if one home loan went bad, it was likely that all the others would too. By bundling up subprime loans from Florida, California and Texas all into one product, CDOs didn’t make those loans any safer; they merely concentrated the risk. The situation is analogous to selling flood insurance to thousands of people living in the same flood plain. Although the insurer’s risk is spread across a number of households, each policyholder is likely to lodge a claim for damages at the exact same time. Both the CDO investor and the flood insurer have the illusion of safety because their risk is not truly diversified in an economic sense.

Exotic ETFs purvey the same false promise of diversification as the CDOs of subprime mortgages. Rather than alleviate risk, they concentrate it. Consider a typical high-yield corporate bond ETF, which is comprised of a large pool of low investment grade debt. Although the risk is spread across a large number of assets, in the event of a recession or rising interest rate environment, many of these underlying companies are likely to incur operating stress and potential default at the same time. The same thing may be said about an ETF of ETFs, (akin to the old “CDO squared”) which re-slices and repackages the same assets over and over again, but does not change their underlying risk profile. But the most startling and potentially dangerous innovation in this area is the

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37 See supra note 36.


39 Nicole Bullock and Joe Rennison, "SEC approves 4X leveraged ETFs”, Financial Times, May 4, 2017. https://www.ft.com/content/a5af4864-3053-11e7-9555-23ef663eef8a


41 See supra note 38.

42 See supra note 29, pg. 61.

43 Stephen Penman, Accounting for Value, Columbia Business School, 2011, pg. 19

leveraged ETF. A product akin to the infamous “synthetic CDO”. The key difference between a normal CDO and a synthetic CDO is that the latter bundles up derivative bets that resemble a pool of asset-backed securities (say mortgage bonds), rather than the underlying assets themselves (hence “synthetic”). In other words, leveraged ETFs don’t actually own the relevant assets, but a series of side contracts that seek to replicate their performance. The situation is analogous to an insurer that sells you flood insurance on your house, but then allows a hundred-other people to insure your house as well (because they want to bet on a storm). The insurer then bundles up those extra premiums into a new security and calls it diversified! Such synthetic or leveraged ETFs are nothing more than convoluted tools for outright speculation and gambling.

Evidence of A High-Risk Environment

“The more risk we take because we believe the environment is low-risk in character, the less the environment continues to be low-risk in character” – Peter Bernstein.

The comparison of ETFs with CDOs is not to purvey either product as inherently evil. Every financial innovation serves a useful albeit limited purpose in the smooth functioning of financial markets (they are not the first to suffer at the hands of speculative and irrational investors). Rather, the proliferation of unconventional ETFs are an indication that financial markets have become riskier and that asset prices have diverged from the long-run average return on capital. In other words, the uptake of such speculative products is less a cause of irrational exuberance than a manifestation of it. Investors have become complacent and hungry for returns, which has led them into more complex products at higher prices. When investors are unworried and risk-tolerant, they buy assets with low yields and at high valuations. Such optimism and absence of caution is the true source of investment risk, not the underlying assets themselves. In other words, high quality assets can be risky, and low quality assets can be safe. Ultimately, it depends on the price paid. The current perception that ETFs are less risky, therefore, is also what makes them more risky. And the general shift toward index funds and ETFs, which allocate capital according to price rather than value, is what makes the current investing environment likely to deliver lower returns (not higher returns) over the long run.

An important lesson of financial history is that nothing lasts forever. Every investment cycle sows the seeds of it’s own destruction. The investor psychology that drives current market behaviour will eventually self-correct and drive investors with the same energy and momentum back in the opposite direction. The question, therefore, is how will those unconventional ETFs fare in an inevitable downturn? Such products have never been tested in challenging market conditions. And the presumption of liquidity may turn out to be illusory in a full-fledged bear market. This is especially true of the thinly traded and smaller ETFs in which the fund manager is obligated to create or redeem units at a price close to NAV. For instance, what happens when the share price strays too far below NAV, but there is no one willing to buy the underlying assets? Who is responsible for redeeming investors then? Is it the market maker, the authorised participant or the ETF manager itself? In such a downturn, a potential run on an illiquid asset class could leave an ETF manager with no other option but to redeem investors below NAV, or even put a complete freeze on all redemptions. Such an event could trigger a run on other ETFs and perhaps a wider panic. Either way, it’s clear that when the investment cycle does eventually turn, many ETFs will be exposed for their false promises of liquidity and diversification. The more interesting question is which underlying asset class will prompt the eventual turn of sentiment? Or in other words, what will be the US subprime loan of the next financial reckoning? If we had to put a bet on it, our money would be on long-term government bonds (off the back of rising inflation). But that’s a story for another day.

46 ibid.
50 See supra note 29, pg. 68
51 Howard Marks has also pointed out that “It is not clear where ETFs and index mutual funds will find buyers for their holdings if they have to sell in a crunch”. See Chris Flood, “Record ETF inflows fuel price bubble fears”, AFR, August 14, 2017: http://www.afr.com/news/world/record-etf-inflows-fuel-price-bubble-fears-20170813-pxqgi5
52 See supra note 6, for a more complete discussion of the redemption/creation feature of ETFs. Also see Matthew Tucker and Stephen Laipply, Fixed Income ETFs and the Corporate Bond Liquidity Challenge, iShares, Black Rock, pg. 5. https://www.ishares.com/us/literature/brochure/fixed-income-etfs-and-corporate-bond-liquidity-challenge-en-us.pdf
53 As noted by Raphael Dieterlen, head of ETFs and index investing at Lyxor, “Whether you have a conventional mutual fund or an ETF that invests in high-yield bonds, in a crisis you may face a challenge selling the fund’s assets,” …“ETFs are just tracker funds that provide exposure to an underlying asset class. You cannot assess the ETF without assessing the underlying.” https://www.thetradenews.com/Regulation/Does-ETF--Bottleneck-Risk-exist/?fullstory=true
54 Even Jack Bogle has said: “it is high time both the ETF industry and policymakers re-examine the entire ETF ecosystem. Why? Because of its sheer size and fragility in times of market stress.” https://www.ft.com/content/5973b53a-bd60-11e6-8b45-b8b811dd5d080
PART III: A Wealth Management Playbook

1. The Universe of Investments

If there is no such thing as one superior investment strategy – neither active nor passive – then this begs the question: how is an investor to choose between them? Up now is part three of our four-part dissertation on the contest between active and passive. In it, we propose a practical framework for investors to identify an approach that is ideally suited to their unique investment needs and abilities. To summarise, we believe that every investor’s individual circle of competency should be the ultimate arbiter of capital allocation. We begin with a survey of the asset classes, strategies and products that are available to all investors. We then traverse some of the most common myths, misconceptions and misgivings of active investing.

Strategies & Asset Classes

All investors are confronted with a choice between active or passive management, on the one hand, and high or low-risk assets, on the other. High-risk assets offer investors the prospect of high investment returns, while low-risk assets promise lower returns. An investor that is willing to venture into high-risk assets may be characterised as aggressive, while an investor that prefers the safety of low-risk assets may be described as defensive. As noted earlier, risk, in this sense, is the likelihood an investor will suffer a permanent loss or impairment of their capital (not the volatility of asset prices). Therefore, a decision to invest in high-risk assets, or to take on more risk, does not guarantee higher returns; it only guarantees the prospect of higher returns. If high returns were a foregone conclusion, then they wouldn’t be riskier. In other words, high-risk assets are those in which the outcome is less certain, but the prospect of both high returns and low returns (and even losses) are more likely. This probabilistic relationship is described as the “risk-adjusted return” on investment and is depicted by something known as the “capital market line” (See Figure 2).

Every investable asset class is characterised by its own unique risk-adjusted return and is represented by a specific point along the capital market line. Asset classes found at the lower end, include cash, term deposits, and other money market instruments, which today yield around 0-2%.65 Higher risk-adjusted returns are found in fixed income assets, such as short-term government bonds, high-grade corporate bonds, and even longer term sovereign debt, which yield between 3-5%. Further along are large capitalisation public equities, real estate, low investment-grade corporate debt and small capitalisation or emerging market equities, which yield 6-8%. And finally, the highest risk-adjusted returns are found in alternative asset classes, such as private equity and venture capital, which yield anywhere between 8-20%.66 Both active and passive strategies span across these asset classes, but the difference is that passive investors adjust their preference along the capital market line, while active investors aim to move above the line. In other words, active investors seek to achieve above average returns for a given level of risk, or the same return, while bearing less risk.67 Such outcomes denote their ability to add value through superior skill, insight, and judgment (or “Alpha”). In contrast, an irrational or unskilled active investor will end up below the capital line. Ultimately, the entire investment landscape may be defined by this choice between active or passive strategies, and high or low risk assets.

Figure 2: The Capital Market Line

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64 As outlined in Part I, active strategies seek to exploit inefficient markets, or discrepancies between price and value, to generate above average returns, while passive strategies, seek to track efficient markets, or the tendency for prices to converge on value, to achieve the average return.
65 The greater uncertainty or distribution of outcomes, which are associated with higher risk assets, is denoted by the ever-widening bell curve. Note that the inclusion of this bell-curve may be attributed to the hard work and insight of Howard Marks, see supra note 29, pg. 42.
66 See supra note 10, pg. 308-309 (All expected yield figures are derived from the latest edition).
67 Note that current expected returns across all asset classes are below their long term historical average, as a result of central bank efforts to reduce the cost of capital across all financial markets (i.e. the capital market line has been pushed downward).
68 See supra note 29, pg. 74.
Wealth Management Products

The wealth management industry offers a wide range of investment products that cater to every combination of risk appetite and investment strategy. Term deposits, money market funds, broad-based index funds and ETFs are designed for passive strategies, which seek to track the average return of low-risk asset classes. Exotic ETFs, smart-beta funds, and “quant” or technical funds, cater to passive strategies that seek to track the average return of high-risk asset classes. This includes the performance of more speculative “assets”, such as hard commodities and exotic artwork. The defining feature of both product ranges is that they allocate capital according to price rather than value, to achieve average market returns. On the other hand, a range of managed funds, listed investment companies (LICs) and investment trusts cater to active strategies that seek above average returns on low-risk assets (including some equities, bonds and real estate). Whilst hedge funds and limited investment partnerships cater to active strategies that seek above average returns on high-risk and alternative asset classes. The defining feature of both these product ranges is that they allocate capital according to fundamentals, rather than price, and thereby hope to beat the market. Given this broad selection of investment opportunities, all investors – theoretically – have the ability to achieve stellar returns. So, why don’t they? In other words, why do investors bother with passive management at all, if active strategies always promise to outperform the market?

2. Active Investing is a Zero-Sum Game

The Risk of Underperformance

“There is one important fact about investing and it’s the most important fact that you can never forget...The average performance of all managers before fees has to be the average performance of all assets” – Bruce Greenwald.

Just as taking on greater risk does not guarantee higher returns (only the prospect of higher returns), so too an actively managed fund does not guarantee outperformance, only the prospect of outperformance. If above average returns were a foregone conclusion then they wouldn’t be above average! And, therefore, only those who are willing to suffer the cost of underperforming the market should be willing to risk their capital on beating the market. The key point is that active management is always a zero sum game (i.e. whenever one manager outperforms the market, there is another that underperforms the market). As a result, active managers, as a whole, actually underperform the market, after taking their fees into account. In fact, most professional investors perform worse than the average low-cost index fund. Only a small group of talented investors, such as the Super Investors of Graham and Doddsville, consistently outperform the market and even they are usually only identifiable in hindsight. Moreover, their performance tends to decline as assets under management increase. The average or non-professional investor, therefore, usually jumps on board too late and ends up missing the best returns (as the famous adage says: past performance is no indication of future returns). So, unless one has the necessary skill and judgment to identify a quality manager in advance, outsourcing the wealth management process to a professional can be treacherous for your wealth. To use a football analogy, it is akin to a local football hobbyist taking on the role of Collingwood Senior Coach on selection night. Not only are they completely unfamiliar with the team’s experience and ability, but they will be unable to differentiate the incidence of luck and skill in each player’s performance. The inconvenient truth is that the only people who are truly capable of identifying a quality active manager, in advance, are the active managers themselves!

Contrarian or Second Level Thinking

“The problem is that extraordinary performance comes only from correct non-consensus forecasts, but non-consensus forecasts are hard to make, hard to make correctly, and hard to act on” – Howard Marks.

The problem with active management, and the reason it does not guarantee outperformance, is that beating the market return requires contrarian or second level thinking. Many investors falsely believe that being “right” about a company’s prospects is the only prerequisite for superior returns. But if all other market participants are also “right”, then the asset’s price will already reflect its underlying value (and thereby expect to yield the average market return). In order to achieve above average returns an investor must instead identify and then exploit discrepancies between price and value. In other words, superior returns are not a function of buying good assets, but of buying those assets well. Such opportunities will only arise in markets filled with irrational and misinformed investors. But if all active investors believe that they are acting rationally, how is one to find instances in which they are acting irrationally? The only way is to reach an unconventional but more accurate understanding of the economic future. Being contrarian for the sake of being contrarian is not enough (and just as perilous as following the crowd). Instead, an active investor must be able to derive a correct non-consensus forecast from deep and complex insights. Such second level thinking requires a competitive or intellectual edge, the capacity for independent thought, and willingness to ignore the crowd. True contrarian thinking, therefore, is an inherently lonely and difficult task (if everyone could achieve unconventional insights, then they wouldn’t be unconventional). It also makes the active management game a zero-sum endeavour. One in which only a few uniquely talented investors are likely to attain the requisite knowledge, intuition and psychological awareness to achieve above average returns.

59 “Smart-beta" refers to the use of alternative index construction rules to that of traditional market capitalization based indices.

60 The reader should note that this catalogue is not intended to be an exhaustive summary of potential products. Furthermore, the segmentation of asset classes and vehicles is not a binary phenomenon. Some securities, such as corporate equities, may fall within any subset of products.

61 See supra note 10.

62 Ibid. Chapter 1.
Illusion of the Part-Time Investor

“It’s not supposed to be easy. Anyone who finds [investing] easy is stupid” – Charlie Munger.65

Despite these challenges many people still fall victim to the idea that it is relatively easy to outperform the market. Moreover, the notion is encouraged by all manner of do-it-yourself investment books and how-to guides. All you have to do, they say, is a little bit of first-hand research and analysis, filter out the most promising “blue-chip” companies, and then hold them for the long-term. Piece of cake, right? In fact, this seemingly simple path to wealth and prosperity is a complete and utter illusion. As the author painfully discovered in his own early days of investing, working a full-time job and picking stocks in your spare time is like kicking the footy once a week and then playing for Collingwood on the weekend. Not only are you woefully underprepared, but you’re going to get killed out there! Any full-time chef, public servant, or teacher, who is unable to decipher the delicate nuances of a corporate balance sheet, shouldn’t trade mining stocks in their spare time. Investing (like sport) is a professional’s game with professional players. To consistently outperform the market is incredibly hard and requires huge dedication. This is not to say that any ordinary person does not have the capacity to develop the necessary skills and knowledge to achieve stellar returns. They certainly do. The point is that they must first be willing to make that goal a full-time endeavour. Only those who are willing to dedicate the same level of time, energy and professionalism as that of any other full-time fund manager, will be able to compete and ultimately survive the jungle of financial markets. This alludes to the final and most crucial point of our essay: the best method for allocating one’s capital is intrinsically tied to the unique circumstances and ability of every investor.

3. Choosing an Investment Approach

The Personal Anatomy of Wealth

“There are no solutions, only trade-offs” – Thomas Sowell.66

All capital, by definition, is owned and deployed by an individual with certain capabilities and risk preferences. The typical active vs. passive debate ignores this fundamental truth and instead focuses on the relative performance of investment strategies, without the necessary context of the investor. It is akin to your local grocer outlining the relative merits of cooking with tomato puree vs. canned tomatoes, after you expressed an interest in pre-packaged meals! The list of advantages and disadvantages is ultimately irrelevant given your particular needs. In this sense, the most appropriate investment method is not a function of the best performing asset class, highest return strategy, or the most decorated fund manager. Rather, it is a question of whether active or passive strategies align with an investor’s circle of competency. In this sense, the starting consideration for every investor is their unique financial needs, objectives and understanding of the investment process. This is, arguably, the most crucial element of investing. Without a clear grasp of one’s capabilities or goals, any foray into the world of capital allocation is fraught with danger (for there is no quicker way to part with one’s capital than to invest in products you do not understand or are ill suited to your particular needs). Such preferences are deeply intertwined with one’s personal situation, income capacity, expenses, timeframe, skills, and knowledge. As such, we believe that there are two key questions for every investor to consider. Firstly, are they willing to pay a premium or budget price for accessing investment returns? And secondly, are they more interested in relative or absolute performance? Only then may an investor select the most appropriate investment strategy (active or passive) and asset classes (high or low risk).

An absolute performance benchmark is a a targeted rate of return, which is independent of the market environment. In contrast, relative performance benchmarks are derived from the average market return. An investor’s preference for absolute or relative returns is dependent on their understanding of the capital allocation process and tacit economic knowledge. Individuals with unique insight and superior skill will prefer an absolute return, as they seek to profit from their accrued wisdom. Alternatively, an investor with no apparent skill or insight will desire a relative performance benchmark, as their lack of understanding creates the need for protection from loss or underperformance, rather than opportunity to generate above average returns.57 The second consideration for every investor is their willingness to incur cost or fees in the pursuit of returns. This choice is often defined by an investor’s tastes or economic circumstances. An investor with the economic capacity to incur higher fees, or a desire to outsource the investment process, will prefer a professional or premium wealth management service. Alternatively, an investor who is unable to incur such cost, or is willing to exercise some responsibility over the wealth management process, will opt for a budget-conscious solution. Such considerations are analogous to the trade-offs confronted by any ordinary consumer in their everyday purchasing decisions. For example, consider the man who is willing to substitute a more expensive but premium quality steak from his local butcher, for a cheaper but lower quality alternative at a nearby supermarket. Neither steak is necessarily better than the other; they just satisfy a different type of need or value to the consumer. Ultimately, all investors may be defined by their desire for high or low cost access to returns, and absolute or relative performance.

Investor Types According to Need

This leaves us with four categories of investor: the average retail investor; the institutional investor; the high net-worth individual and the entrepreneur. The average retail investor may be described as relatively uninformed and with limited knowledge of the capital allocation process. They are budget conscious and in need of an investment method that will not only protect them from what they do not know, but also provision for their retirement. In other words, they value low-cost access to returns and a relative

65 See supra note 29, pg. 1.
67 An investor that seeks to be fully invested, at all times, as well as maintain a certain degree of purchasing power, will also prefer a relative rather than absolute performance benchmark. See: supra note 32.
performance benchmark. Despite our innate propensity for over-confidence, most people fall into this category. Institutional investors also lack any discernible economic insights from which they may derive a profit, but usually hold a broader understanding of the investment process and are beholden to a relative performance benchmark (either by charter or law). Given their size and economic resources, institutional investors are willing to pay higher fees for the sake of a professional service. In contrast, high net-worth individuals are usually endowed with specialist economic knowledge or expertise, which they have accrued in the process of building such wealth. Accordingly, they are either capable of identifying a quality active manager, or are willing to bear the extra cost of a professional service. Finally, the entrepreneurial investor seeks to profit from their tacit knowledge and create a self-sustained economic existence. They hold deep technical expertise or understanding of a certain trade or industry. Accordingly, they seek low-cost access to absolute returns and are uninterested in bearing the high cost of a professional fund manager. Rather than wealth accumulation, they seek long-term wealth creation. The final question, then, is what strategies, asset classes and products are most aligned with each investor’s needs and competencies?

When to Be Active or Passive

“If you play games where other people have the aptitudes and you don’t, you’re going to lose. And that’s as close to certain as any prediction that you can make. You have to figure out where you’ve got an edge. And you’ve got to play within your own circle of competence” – Charlie Munger.

The average retail investor is ideally suited to a passive management approach. This means adopting a selection of broad-based index funds and ETFs, which offer the lowest cost access to average market returns. By holding an extremely diversified portfolio of liquid public assets, such products protect the average investor from individual corporate failures, as well as individual corporate gains. In other words, they allow an uninformed person to avoid underperforming the market, as well as outperforming it. The retail investor benefits from the rational effort of other investors to ensure asset prices – and returns – do not stray too far from the long run productivity of capital. Such average performance is perfectly aligned with the retail investor’s need for long-term wealth preservation, rather than accumulation. However, the approach is not completely divorced of any conscious decision-making. An inherent by-product of rock-bottom management fees is that the retail investor must still exercise some discretion over the selection of assets (also known as tactical asset allocation). As highlighted earlier, every investor is presented with a choice between high and low risk asset classes. The most appropriate selection of cash, bonds, equities, or real estate will ultimately depend on the investment time frame and income requirements of each investor.

Institutional investors are also ideally suited to a passive management approach i.e. a professionally managed product that utilises a diversified portfolio of assets to outperform a relative return benchmark. Such managers generate above average returns through superior indexing methods, weighting of asset classes or hedging techniques. They both benefit from, and incur the cost of, rational effort by other investors to ensure that prices tend toward value. This premium service usually incurs high management and performance fees. Institutional investors are, therefore, at risk of both underperforming the market and outperforming it (once fees are taken into account) and must exercise a degree of second level thinking. The reality, however, is that most institutional investors are usually incapable of telling whether a particular asset manager is endowed with the skills, talent or process to consistently beat the market. In contrast, high net-worth individuals are ideally suited to an active and collaborative investment approach. Namely, the retention of alternative asset managers through a limited partnership structure. High net-worth investors are able to identify a quality investment manager by virtue of their accrued economic knowledge and competency. Chosen managers then seek to exploit discrepancies between price and value through special situations and direct asset intervention. The concentrated and illiquid nature of their portfolio, as well as the labour-intensive process, is what leads to uncorrelated returns and the highest professional fees. Nonetheless, this approach satisfies both the investor’s desire to outsource the wealth management process and profit from their accrued knowledge.

Finally, entrepreneurs are (obviously) suited to being the founder or majority shareholder of a proprietary limited company. Rather than profit from inefficient markets, they seek to create wealth by building or entering entirely new markets. More specifically, they work to devise new technologies, business models and organisations that may satisfy a variety of unmet customer needs. For their ingenuity, entrepreneurs are rewarded with the prospect of abnormal and absolute returns. Such wealth is a by-product of their concentrated ownership and close proximity to the business process. This approach satisfies both the desire for low cost access to returns and economic independence. However, the method also comes with significant risk, such as bankruptcy, and few people usually have the requisite skills, knowledge and resourcefulness to succeed. Entrepreneurship requires an ability to view the world in unconventional ways, or to “see what everyone else can see, but then think what no one else has ever said”. These investors are not speculators or gamblers, but innovators. And in this sense, they are the ultimate value investors! In conclusion, each type of investor is compelled to exercise some form of responsibility or judgment over the wealth management process (albeit minor in some cases). The most important thing is for such decisions to be strictly confined to an investor’s defined circle of competency, in order to reduce the likelihood of permanent loss or impairment of capital (See Table 1).

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68 This is not to say that there is something unseemly about this type of investor. It simply denotes the fact that not everyone can be above average and that most people prefer to spend their time pursuing other professional endeavours.
70 Note that capital allocation decisions by the average retail investor are represented by movements along the momentum curve in Figure 1.
71 Institutional investor efforts are depicted by movements along either the value or momentum curves in Figure 1.
72 As long as certain entities remain legislatively entrusted to serve as permanent intermediaries in the investment process (such as industry super funds or sovereign wealth funds), so too will this misallocation of resources prevail.
73 High net-worth investor efforts are depicted by movements along the value curve in Figure 1.
74 Entrepreneurial investment endeavours are represented by movements of the value curve, as depicted by Figure 1.
# Table 1: Comparative Investment Methods

<table>
<thead>
<tr>
<th>Average Retail Investor</th>
<th>Institutional Investor</th>
<th>High Net-Worth Individual</th>
<th>Entrepreneur / Founder</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETFs, Index Funds</td>
<td>Managed Funds</td>
<td>Investment Partnerships</td>
<td>Proprietary Limited Company</td>
</tr>
<tr>
<td>Vanguard, Black Rock</td>
<td>AQR, Bridgewater</td>
<td>Oaktree, Founders Fund</td>
<td>Apple, Microsoft</td>
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<tr>
<td>Self-Directed / Low-Cost</td>
<td>Premium Service</td>
<td>Premium Service</td>
<td>Self-Directed / Low-Cost</td>
</tr>
<tr>
<td>Passive (Momentum)</td>
<td>Passive (Momentum)</td>
<td>Active (Value)</td>
<td>Active (Value)</td>
</tr>
<tr>
<td>Defensive</td>
<td>Aggressive or Defensive</td>
<td>Aggressive or Defensive</td>
<td>Very Aggressive</td>
</tr>
<tr>
<td>Wealth Preservation</td>
<td>Wealth Management</td>
<td>Wealth Accumulation</td>
<td>Wealth Creation</td>
</tr>
<tr>
<td>Average Risk-Adjusted Return</td>
<td>Above / Below Average Returns</td>
<td>Uncorrelated Returns</td>
<td>Abnormal Returns / Bankruptcy</td>
</tr>
<tr>
<td>Management Fee</td>
<td>Relative Performance Fee</td>
<td>Absolute Performance Fee</td>
<td>Cost of Capital</td>
</tr>
<tr>
<td>Silent Shareholder</td>
<td>Minor Shareholder</td>
<td>Major Shareholder</td>
<td>Majority Shareholder</td>
</tr>
<tr>
<td>Agnostic</td>
<td>Rational / Irrational</td>
<td>Rational / Irrational</td>
<td>Genius / Insane</td>
</tr>
<tr>
<td>Quantitatively Driven</td>
<td>Quantitative &amp; Qualitative</td>
<td>Quantitative &amp; Qualitative</td>
<td>Qualitatively Driven</td>
</tr>
<tr>
<td>Algorithmic Trading</td>
<td>Investment Team</td>
<td>Collaborative Investors</td>
<td>Hierarchical Organisation</td>
</tr>
<tr>
<td>Long Term</td>
<td>Medium to Long Term</td>
<td>Medium to Long Term</td>
<td>Long Term</td>
</tr>
<tr>
<td>Tactical Asset Allocation</td>
<td>Irrational Behaviour</td>
<td>Special Situations</td>
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<td>Productivity of Capital</td>
<td>Under or Overvalued Securities</td>
<td>Catalysts for Change</td>
<td>Customer Satisfaction</td>
</tr>
<tr>
<td>Tracks Value</td>
<td>Uncovers / Captures Value</td>
<td>Unlocks / Builds Value</td>
<td>Creates Value</td>
</tr>
<tr>
<td>Very Liquid Holdings</td>
<td>Liquid Holdings</td>
<td>Illiquid Holdings</td>
<td>Very Illiquid Holdings</td>
</tr>
<tr>
<td>Extreme Diversification</td>
<td>Diversified Portfolio</td>
<td>Concentrated Portfolio</td>
<td>Extreme Concentration</td>
</tr>
<tr>
<td>Market Entry &amp; Exit Risk</td>
<td>Systemic Tail Risk</td>
<td>Liquidity Risk</td>
<td>Business &amp; Industry Risk</td>
</tr>
<tr>
<td>Bears Incremental Risk</td>
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<td>Public &amp; Alternative Assets</td>
<td>Alternative Assets</td>
<td>Private Assets</td>
</tr>
<tr>
<td>Efficient Markets</td>
<td>Efficient &amp; Inefficient Markets</td>
<td>Inefficient Markets</td>
<td>Builds / Enters New Markets</td>
</tr>
</tbody>
</table>

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PART IV: How to Succeed as a Retail Investor

The majority of people – by definition – are average retail investors. This includes the many high net worth individuals who inherit a large portion of their wealth.\(^{76}\) What follows is the final edition of our four-part elucidation on active vs. passive management. In it, we offer a broad how-to guide for the average retail investor, including some timeless wisdom from the investment greats.

Planning with Index Funds

“I think the desire to get rich fast is pretty dangerous. My own system was to get rich slow… …After all, if you get rich fast all you can do is be robbed by your own employees and your yacht and so forth. Whereas, if you get rich slow, you amuse yourself over a lifetime” – Charlie Munger.\(^{77}\)

As noted in Part III: A Wealth Management Playbook, the average retail investor is ideally suited to low-cost and broadly diversified index funds, or ETFs, which promise average market returns. Although that may seem like a dull and boring prospect, over the long run such returns can do much more than secure one’s financial future. To demonstrate, let us consider a 25-year-old artisan from Melbourne – named Manu – who one day inherits a very generous sum of money from his great-aunt. Rather than spending the $100,000 on a journey of self-discovery through South-East Asia, Manu decides to invest that money in a global equities index fund, which has historically averaged a 7% annualised return after fees. Assuming that the fund continues to deliver the average historical return, upon retirement at age 65, Manu will be worth just shy of $1.5 million. Not a bad feat, considering that he exhibits no apparent skill for capital allocation. Such utility of index investing is derived from one simple yet powerful economic force. One that Einstein dubbed ‘the eighth wonder of the world’. Compound interest. The ability to earn interest on the interest is what drives the underlying snowball of wealth accumulation.

In the early years of indexing, investors were limited to a few broad market indices, such as the famous S&P 500 Index. But today, they are presented with all manner of indexing options, spanning broad asset classes, countries and industries. Trying to navigate these options can be completely overwhelming. As outlined in Part II: Are Index Funds Creating a Bubble? many of these indices are so focused that they actually lose many of their intended diversification and liquidity benefits. Even something as innocent as an S&P/ASX 300 index may not be truly diversified, if one considers that Australia’s equity market only constitutes about 2-3% of the global landscape.\(^{78}\) In other words, betting on the economic fortune of a particular country can be just as perilous as picking stocks outright. Accordingly, we believe that the best option for any retail investor is to be as broadly diversified as possible across a relevant selection of asset classes. The most appropriate weighting of high or low risk assets will depend on the investment time frame and income requirements of each investor. And after that, the wealth management process becomes a matter of personal financial planning. Such as: when to make contributions or withdrawals from a fund; rebalancing asset classes; and setting long-term objectives, like buying a house or provisioning for retirement.

Avoiding Mistakes


One great misnomer of investing is the idea that it is okay to take big risks when you are young, because you have plenty of time to make up for any losses. To demonstrate the falsity of this logic, let us return to our young artisan friend. Now at age 30, Manu has recently noticed that many of his colleagues are talking about something called “crypto currency”. Some of them claim to have doubled, tripled, even quadrupled their money, in a matter of months. Growing restless with his frugal lifestyle – and watching his friends splurge on expensive cocktails with little umbrellas – Manu decides to boldly invest some of his own capital in this “sure thing”. Not to be outdone, he decides to reallocate his entire “winnings” from the index fund (about $40,000) into the latest cryptocurrency offering. Unfortunately for our curious friend, this particular digital currency turns out not to be the next Bitcoin. Instead, it falls victim to a group of Russian hackers, which leads to the complete evisceration of his capital.

You might say that this is not a complete calamity for our hero, given that he still has $100,000 invested and 35 good working years ahead of him. However, if we assume that the remaining capital is left to compound at a 7% annualised return, Manu will now only have about $1.067 million upon his retirement. So that brief but highly fraught $40,000 speculation has actually ended up costing him around $440,000! The crucial lesson is that the downside of any investment decision is not just the potential for immediate loss, but also the opportunity to compound that capital over a long period of time.\(^{80}\) And if there is one resource in the world that you cannot get any more of, it is time! Losing money in your early years – or any other time – can dramatically setback the powerful benefits of compound interest. This example demonstrates that young people actually have the most to gain (and lose) from their investment decisions. For the earlier that one begins to accrue and invest capital, the greater the effects on long-term wealth.

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\(^{76}\) For example, consider a wealthy heiress from Toorak who opts to drive a Maserati convertible over say the humble Toyota Camry. So too, she may also decide to invest in a multi-strategy hedge fund, as opposed to a much less glamorous Vanguard S&P/ASX 300 index fund. The chosen fund manager may certainly manage to outperform the market, but the heiress has no capacity to determine, in advance, whether that will be the case. Although she might value the *premium* status of that service, the fact remains that she is ill-suited to such an active management approach.

\(^{77}\) Charlie Munger, Q&A response at the 2015 Annual Meeting of Berkshire Hathaway Shareholders.


\(^{80}\) This phenomenon is also known as the opportunity cost of capital. Namely, the benefit that a person could have received, but gave up, in order to take an alternative course of action.
Saving & Investing

"If you consistently spend less than you earn and invest it in index funds, [and] dollar cost average, because you're putting money in every pay check; in 20, 30, or 40 years, you can't help but be rich" – Charlie Munger.

One important feature of index investing, which we have so far ignored, is the risk of timing. Let’s say that Manu had invested his $100,000 in early 2007, right before the financial crisis. By 2009 his net worth would have almost halved. Moreover, the annualised return on his investment, to date, would be much less than the average return of the asset class. Such an eventuality is also possible today, given the high level of asset prices and investor complacency. This timing challenge is also known as market entry and exit risk. The only way for Manu to avoid such risk is to spread his initial investment over a number of periods. There is no hard and fast rule for this process. Manu could do monthly instalments over say 5 years, or even annual instalments over 10 years. But the more time he takes to spread his deployment of capital (and lower the risk of a poorly timed entry) the higher the opportunity cost. This is because a larger portion of capital must remain on the sidelines for longer and markets can always go up as well as down in the interim. In other words, a passive investor must not only deal with the risk of losing money, but also the risk of missing out on opportunities. The balancing of these factors is a matter of personal financial planning and risk appetite.

The process of making regular and even contributions to an index fund – also known as dollar cost averaging – is fundamental to the success of any retail investor. To demonstrate, let’s again revisit our artistic friend. But this time let’s assume that his great-aunt had not been so generous. Instead, at age 25, Manu only has $10,000 to invest, which he scrambled away from a series of part time jobs and birthday donations. However, Manu has also managed to convince an unsuspecting local art gallery to employ him as a full-time curator. As before, he decides to invest the $10,000 in a broad global equities index fund, which has historically averaged a 7% annualised return after fees. But after a stern lecture on the dangers of materialism from his overbearing mother, Manu also decides to contribute $1,000 of his monthly income to the fund. Assuming that the fund continues to deliver the average historical return, and Manu sticks to his assigned contributions for the rest of his career, upon retirement he will have amassed just over $2.5 million! That’s $1 million more than what he accrued by investing the large inheritance. Dollar cost averaging, therefore, not only alleviates the risk of market timing, it also highlights an important and rarely appreciated fact about capital allocation: that investing and saving are two sides of the same coin. Building wealth, in other words, is not about the occasional striking of riches; it is a slow and gradual process of accumulation. One that is impossible without a penchant for frugality, prudence and delayed gratification. In conclusion, no matter how large or rapidly rising your income may be, if you do not have the discipline to spend less than you earn, then you will never be wealthy.

82 For the sake of simplicity, compound interest has been calculated on an annualised rather than a monthly basis.