KNUFF & CO.
YOUR FAMILY OFFICE

On Passive Investing

By William G. Knuff, III

(Excerpted and republished from a quarterly report originally published in 2016)

Much recent attention has been drawn to the unprecedented flow of investor capital from "active" investment funds (e.g. mutual funds, hedge funds) to "passive" or index investment funds (e.g. index funds, index ETFs). The Wall Street Journal alone published at least nine separately authored stories on the subject during the week of October 17. While the historical "active versus passive" debate among leading professionals and academicians remains stalemated to this day given known behavioral and empirical flaws on both sides, the pendulum is presently swinging passive investing's way. Further context and caution are warranted.

Setting aside these traditional academic, behavioral, and empirical arguments, some of which have been highlighted in recent stories and most of which are ignored or scarcely understood by investors, I would like to focus instead on certain motivational, structural, and systemic aspects of this trend.

***

It is often valuable to understand what motivates people. For example, I would imagine, and certainly hope, that most if not all registered U.S. voters have attempted to understand and incorporate into their voting decision, what motivates the current raft of candidates running for president of the United States. Similarly, before deciding or "voting" where to invest one's savings, it might be valuable to understand why investors are attracted to passive investing in record numbers today. A brief look at some relevant data and history might help.

According to Morningstar data, an estimated 30% of all U.S. investment assets are invested passively in index funds today. Based on data cited in an October 16 Wall Street Journal story, approximately $1.3 trillion of investment assets have migrated to passive index funds from actively managed funds in the past three years. Another Wall Street Journal story, published on October 17, reported that Blackrock, founded just 28 years ago and now the world's largest money manager, just surpassed $5 trillion in assets under management. Blackrock shrewdly acquired Barclays Global Investors (creator of *iShares* ETFs) in 2009. Although about 70% of assets are still actively managed, the tide is going out due to several factors.

One factor is that most actively managed funds underperform their benchmarks. Historically, the two primary reasons for this underperformance are: (1) most active fund managers are actually "closet indexers" or "index huggers", closely matching index performance *before* fees and expenses, but trailing index performance *after* such fees and expenses; and (2) generations of investors have lost confidence in the market, in asset managers, and in economic growth due to behavior altering events. The latter reason has certainly been on display since the 2008 financial crisis, the vestiges of which (e.g. financial pain, fear, lack of liquidity, lack of trust, anemic global recovery) have created strong anchoring biases and negative halo effects. Such side effects have caused many investors to either invest more conservatively (e.g. bonds), or delay investment, or abstain from investing altogether. In any case, these investors have largely missed out on the market's recovery. Capital that otherwise would have returned predominantly to actively managed funds flowed elsewhere.

What is motivating this kind of investment behavior? Investors are neither confident nor trusting of the global economy, in large measure, due to the 2008 financial crisis. At the height of the crisis in the U.S., the Fed's (and Treasury's) only option was to be the lender of last resort – to provide liquidity, stability and confidence through direct investments, asset purchases, and the hyperextension of credit. Holding accountable bad actors, drafting new regulations, and curbing moral hazard were not only beyond their purview but also too costly, slow and immeasurable to effect immediate relief. Unfortunately, some actions taken to provide what was intended to be short-term relief have become longer-term challenges. Artificially low interest rates fit this category. On the one hand, low interest rates make borrowing easier and cheaper. On the other hand, they discourage saving/investment and encourage consumption. Low interest rates also make it disproportionately easier for *all* companies, regardless of creditworthiness, to borrow more cheaply which, in turn, makes it more difficult for investors to readily distinguish companies that are able to raise and deploy capital efficiently and profitably from those that aren't. Consequently, stock picking has gotten harder in the near term. This situation has motivated investors to seek an easier solution – passive index funds – one that essentially reduces multiple difficult choices down to a single easy choice.

One can hardly blame these investors. The bursting of the tech bubble in 2000, the events of 9/11, the accounting frauds at Enron, Worldcom, and elsewhere that brought about the Sarbanes-Oxley Act of 2002, the unprecedented Ponzi schemes perpetrated by Bernie Madoff and others, the 2008 financial crisis…the impact these events have had on the minds of investors cannot be overestimated. Frankly, it would be surprising if the current generations of earners and savers, Millennials and late Gen Xers, who witnessed these events as young adults, *didn't* prefer passive investments. They are a data-led, tech-savvy group who prefer engaging passively in activities, or with people, through technology. Their consumption of instant information is so habituated through mobile devices that they tend to approach many aspects of their lives from a moment-to-moment perspective and often mistakenly substitute information for knowledge. Such tendencies breed more of a short-term trading mentality than a long-term investing one.

To their credit, Millennials and late Gen Xers generally embrace inclusive group activities and despise discriminating ones. Investing (the successful kind) is an exclusive and discriminating activity, and therefore uncomfortable for this group. A special October 24 WSJ section on Wealth

Management contained data from Blackrock's Global Investor Pulse survey website showing that 46% of Millennials think investing is too risky, while only 37% of Baby Boomers and 33% of the Silent Generation think so. This combination of unsettling historical economic events and generational attributes could explain, at least in part, the current trend in passive investing.

To entice such investors, financial advisors have had to retool their marketing pitches to emphasize investment products that address present investor fears and biases regarding trust, confidence, costs, risks, liquidity, transparency and expected performance.

What is motivating financial advisors to peddle passive investments today?

Financial advisors are primarily motivated by profit. This is nothing new, but *how* they profit today *is* new. Asset gathering is the game now, not generating transaction–based commissions or producing a superior return for investors. Regulation, litigation, and changes to the competitive landscape have all impacted financial advisors' motivations over time.

The "May Day" rule issued on May 1, 1975 forced stockbrokers to abandon fixed price commissions in favor of negotiated commissions. Intense competition for commission business soon followed, so brokers sought additional sources of revenue by separately negotiating (i.e. "unbundling") prices for other services. This begot the discount brokerage industry. As competitive pressures mounted and brokerage profits declined, brokers increasingly sidestepped rules. A wave of litigation ensued, followed by new legislation (i.e. the Employee Retirement Income Security Act of 1974, *aka* ERISA) that, among other things, propelled the mutual fund industry to the fore of the competitive landscape. Mutual funds democratized investing and offered investors attractive advantages over traditional brokerage accounts, such as low costs, low investment minimums, diversification, transparency, and the absence of pressure sales tactics. The mutual fund industry forced brokers to rebrand themselves as financial advisors (to elevate the appearance of their status with an alphabet soup of abbreviations), and to repurpose themselves as asset gatherers.

Deregulation masquerading as regulation, from the new Gramm-Leach-Bliley Act (which repealed the Glass-Steagall Act) to the amended Community Reinvestment Act, loosened the rules and stimulated competition across financial service sectors, especially in mortgage banking and investment banking. Practically overnight, industry consolidation occurred. Bank of America, Citigroup, and Nationsbank became financial supermarkets with asset management, brokerage, research, insurance, mortgage, proprietary trading, and commercial and investment banking. These and other institutions became behemoths, fraught with conflicts of interest and misaligned incentives.

Fresh waves of litigation and legislation ensued in the wake of the 2008 crisis, producing the Dodd-Frank Act of 2010 and, most recently, the Department of Labor's new fiduciary rule (of 2016) which supplements and expands ERISA's scope regarding fiduciaries. Although one could argue that such duties pre-existed and were already implicit, broader responsibility looms.

The byproduct of the industry's convulsions and evolutions of the past 16-plus years is the current landscape of market-dominating, well-funded, asset-gathering factories whose financial advisors are well-indoctrinated, scripted marketers and data-massagers. Data is available. Data is compelling. Data is unbiased (although how it is presented is not). Data is king. Financial advisors neither need nor desire (nor are probably able) to explain the empirical and theoretical pros and cons of active versus passive investing to clients. Rather, these financial advisors simply need to be adept at convincing clients that they, and the giant branded bundle of resources behind them, are different from the rest of their shark peers; that they are toothless benevolent sharks and their history and primal instincts can safely be ignored.

Today's financial advisors are well schooled in the game of "risk roulette". The goals of this game are simple: (1) gather and keep assets; (2) charge inoffensive but perpetual asset-based fees that don't appear to gouge clients or run afoul of conflicts and new rules; (3) avoid making investment decisions by recommending passive index investments -- this serves two purposes: it makes the advisor appear fee conscious and it neutralizes investment performance as a competitive differentiator (i.e. performance in line with the herd provides job security and asset security for financial advisors); and (4) avoid investment risk or accountability by outsourcing any client requested active management to third parties.

The current momentum in passive investing is also due, in part, to the motivations of professionals in charge of public pensions, endowments and foundations. In a low-interest rate environment, the present value of future obligations is larger than it would be in a higher discount rate environment. At the same time, many such institutions have restrictive investment policy statements that can work against them, suppressing returns and exacerbating the funding gap between assets and obligations. Moreover, a pension or endowment manager's job entails massive risk and responsibility relative to its compensation and discretion. These professionals have little to no incentive to stick out from the investing crowd or seek ways to outperform the market. They are typically not rewarded based on investment performance, and the downside risk of losing their job for making a bad investment decision far outweighs any potential upside that may come from trying to produce market-beating results. It also does not help matters that human beings tend to be myopically loss averse – that is, losses tend to hurt twice as much as comparable gains feel good. Passive investing helps to alleviate these risks.

***

Regarding structural aspects of passive investments, shares of index funds and index ETFs are derivative securities. In the simplest terms, they have essentially no value by themselves but rather derive their value from underlying assets. For example, the five hundred stocks that comprise the S&P 500 index are the underlying assets in an S&P 500 index fund.

Since index fund investors do not directly own underlying assets, they forego some economic benefits, such as voting rights, liquidity, a direct risk/return correlation, and choice in allocating investment capital. These benefits have value. For instance, value differences can be readily observed between voting and non-voting classes of publicly traded stock. Despite the value of such benefits, index fund shares rarely, if ever, trade at discounts to their net asset values.

Index fund shares come with unique tracking error, and counterparty and liquidity risks. They trade independently of their underlying assets, and they are issued and redeemed in blocks of 50,000 shares called "creation units" by a designated institution known as an "authorized participant". In a catastrophic market situation (i.e. when it counts), the value of an index fund share could deviate significantly from its net asset value. It also could lack sufficient liquidity to be sold even when its underlying assets are liquid, leaving an index fund investor little, if any, downside protection or recourse.

Conspicuous structural selling points often made about passive investments are: (1) all human judgment and bias (or errors therefrom) have been removed; all decision-making that can result in underperformance has been eliminated -- in other words, investment performance essentially will be the same for everyone; (2) fee and expense costs are very low; and (3) such investments are safer because they are extremely well diversified. However, inconspicuous counterpoints exist but are almost never made. These include: (1) financial advisors cannot be criticized or held accountable for performance; uniformity (marketed as "fairness") and mediocrity are good for financial advisors but bad for clients; (2) the long-term negative impacts from fees and expenses are typically less severe than the long-term negative impacts from mediocre returns and opportunity costs; (3) the abdication of choice is a hidden cost, and it is very high over the long term; and (4) around 85% of all businesses (public and private) fail, so quantity is no substitute for quality – i.e. an index fund is not safer but rather riskier in the long run than directly owning pieces of as few as six quality companies. Absent the relatively modest incremental benefits of diversification and lower expenses, nothing here favors the investor.

Another structural aspect of passive investments is that they are indiscriminate allocators of investor capital. They allocate capital using formulaic methods (e.g. capitalization-weighted or equal-weighted) that bear almost no correlation to a company's profitability, future growth prospects, or quality of management. Most indexes are capitalization-weighted, meaning that the proportion by which a given public company's stock is represented in an index is a function of its total market value (i.e. market price x number of outstanding shares) relative to the aggregate market value of all of the public companies that comprise the index. For example, a company with a $1 billion market value in an index with an aggregate market value of $100 billion would have a 1% weighting in this index. The larger a company's market value, the greater its proportionate representation is in an index. The opposite is true the smaller a company's market value becomes. The application of this methodology results in index funds owning more of overvalued companies and less of undervalued companies, which is the opposite of a "*buy low, sell high*" structural recipe for investment success. Paradoxically, computers, not humans, perform this highly irrational method of capital allocation.

Index funds own a pro-rata proportion of *every* underlying asset within their benchmark index so, like it or not, they own the good, the bad, and the ugly. For anyone, especially someone expecting a steady return on investment, this constitutes highly unusual and irrational behavior. Usually, people are instinctive discriminators (i.e. natural selectors) because they are keenly aware that life is short and resources are limited. For most of us, health is more important than wealth.

Yet when we become ill, we don't seek advice from every doctor. Rather, we seek advice from one doctor we know and trust.

Except for mutual fund shares, most derivatives (including index funds and index ETFs) were created by and primarily for business or commercial purposes. They were not created first or foremost with investors' interests in mind. Derivative securities, such as options and futures contracts, asset-backed and mortgage-backed securities, and more esoteric securities like CMOs, CDOs, and credit default swaps, are used predominantly by traders, speculators, and industry participants to manage business risks and facilitate liquidity, leverage, and hedging in what were historically illiquid, unlevered and non-traded assets. One recent example of a commercially originated product is the exchange-traded-fund or ETF. Created by Nathan Most, a former product development officer for the American Stock Exchange, the ETF was designed to increase trading volume on the exchange. Larger trading volumes boost exchange commissions and profits at the expense of investors, which is why John Bogle, founder of Vanguard, originally turned down Mr. Most's concept in the1980s. Derivatives favor their creators and short-term market participants, not investors.

The one benefit that derivatives do offer investors is *access*, not liquidity but access. Despite appearances and oversimplified explanations, derivatives are complex securities. Beware of those bearing derivative gifts.

***

Regarding systemic aspects of passive investing, index funds and index ETFs that have been promulgated by institutional factories – e.g. Blackrock, Vanguard and State Street Global Advisors -- hold and control much of the public float in the markets. An analysis of Federal Reserve Board data shows that institutions hold approximately 67% of all U.S. stocks today. In 1966, fifty years ago, institutions held less than 16%, and individuals directly owned the lion's share at around 84%. Data from Morningstar and S&P Global Market Intelligence, that was recently analyzed and published by the Wall Street Journal, showed that index funds and index ETFs (thru June 30, 2016) collectively owned 11.6% of the S&P 500, up from 4.6% just ten years ago. This shift in ownership and control is not problematic as long as institutions act as independent decision-makers and avoid abdicating decision-making to computer algorithms programmed to behave similarly based on common or identical investment objectives and parameters. Computer algorithms, and now robo-advisors, are capable of replicating flawed or irrational behavior like humans (e.g. heuristics, judgmental biases, herd mentality, panic), only better and faster.

As more assets are held by institutions instead of directly owned by individuals, and as more assets migrate to passive investments, fewer market participants will be active decision-makers. As a result, market inefficiency and volatility are more likely to increase as opposed to decrease. Prior to computer-based trading, flash crashes didn't exist. The growing spate of algorithmically induced flash crashes is a telling new phenomenon.

According to another recent Wall Street Journal story, Burton Malkiel believes that markets would theoretically still function if 80% to 90% of investment assets were passively invested. I'm less sanguine about such theoretical limits. I do know that a few requisites to properly functioning capital markets are: (1) the presence of active buyers and sellers – i.e. informed participants with opposing views, or what economists sometimes refer to as "price discoverers"; (2) access to information; (3) efficient allocation of capital and resources; and (4) access to low-cost capital. I also know that a market can function without any passive participants, but a market cannot function without any active participants.

In addition to being indiscriminate capital allocators, index funds are inefficient capital allocators. They allocate capital uniformly or equitably to all public companies. Although most investment capital flows between buyers and sellers, not directly between investors and companies, inefficient capital allocation by index funds on a massive scale indirectly raises the cost of capital for all companies and denies the most efficient users/deployers of capital access to the lowest-cost capital. Capital markets don't like it when everyone gets a participation medal. It mounts to socialism mocking the essence of capitalism. Such situations deter competition and make it difficult for businesses to attract capital. When markets cease to provide these benefits, participants leave.

The New York Stock Exchange no longer employs specialists (i.e. human market-makers) or uses an open-outcry method for buying and selling stock. Index funds are price takers, not price discoverers. Absent market makers (i.e. decision-makers), liquidity evaporates and markets cease to function efficiently or at all.

Computer algorithms, digital hands, rest on most buy and sell buttons now. In future market panics, hordes of investors will still run irrationally for the exits, just much faster and more severely than in the past, aided by institutional computer-based passive investing. To be fair, computer-based decision-making or "artificial intelligence" can offer benefits in some life situations where the gravity and immediacy of decision-making can be overwhelming. Sometimes having too many choices can be daunting. We have all behaved indecisively at ice cream parlors with 31 flavors and clothing stores with every color shirt imaginable. But the economic consequences of our behavior in these instances are small. The economic consequences of investing tend to be much greater, some of which may not be known for a long time. In these respects, an investment decision can feel like a Cold War era "*press the nuke button, don't press the nuke button*" presidential decision. Even so, I would not want to place the fate of my financial well-being in digital hands.

Consider the following. Computers are programmed and essentially run by humans. With or without computers, humans are still susceptible to judgmental errors and irrational behavior. Computer-based investing and trading is merely the same human behavior at the speed of light. Gladwellian tipping points can arise from unlikely circumstances. Surowieckian crowds can only be wise if their members are able to make well-informed decisions free from the influence of others. Given these realities, it may take far less than Mr. Malkiel's 80% to 90% passive investments threshold to materially disrupt market functions and cause systemic economic harm.

Life is full of variable change; trends ebb and flow over time. The bad news is computers control financial disaster capabilities; they can amplify human behavior in unchecked ways and expose it to markets with devastating speed and efficiency, instead of reducing and insulating markets from it. The good news is, at least for now, computers don't control nuclear disaster capabilities and, while it is still a monument to investor abdication of responsibility, "passive investing" is a more marketable oxymoron than "reliably unreliable." Pour a glass of wine, think critically, and avoid relying solely or excessively on passive investments, artificial intelligence for life's critical decisions, and those who extol them.