

Limitations of Passive Management in Fixed Income

The introduction of the Vanguard First Index Fund in 1976 is perhaps one of the most impactful events within the investment management industry over the previous fifty years. In the decades since, the investing public has allocated capital to passive vehicles at a rapid rate, and these exposures now comprise 54% of total market share among U.S. equity funds.¹ In supporting the merits of passive, proponents invariably cite Eugene Fama’s “Efficient Markets Hypothesis”, Bill Sharpe’s “Arithmetic of Active Management” and Burton Malkiel’s *A Random Walk Down Wall Street*, all of which make the same assertion – that actively managed funds routinely underperform benchmark indices, a result that is further exacerbated by the fees associated with active.

Although passive penetration has achieved scale in equities markets, its adoption within the fixed income space has been relatively limited. With that said, the rate of growth of passive fixed income has accelerated in recent years; between 2019 and 2022, assets under management in U.S.-domiciled passive bond funds increased from 23% to 28.5%.² Additional datapoints evidencing the increasing rejection of active and rotation to passive include global flows to passive bond vehicles of \$178 billion and outflows from active bond funds of \$442 billion over CY2022.² The arguments supporting this evolution take much the same form as those for the equities markets – that passive bond strategies are more efficient and that investors who utilise this approach will incur lower costs. Moreover, disappointing returns within certain segments of fixed income – including high yield corporates and emerging market debt – imply that alpha generation is becoming increasingly difficult.³ Again, the ongoing rotation to passive investment strategies within the fixed income space is predicated on the outcomes of this approach in equities. However, due to certain fundamental differences between the two asset classes, the assumption that applying passive methods to bond exposures will replicate the favorable performance achieved in equities is invalid.

As discussed, one of the primary refutations of the efficacy of actively-managed equity strategies is that few offer performance beyond that of their benchmarks. Moreover, such strategies often fail to be robust across market cycles.⁴ However, as indicated by the historical record, the performance of active managers in fixed income stands in contrast to that of active equity managers. Over the previous decade, 75% of active funds within Morningstar’s Intermediate Term Bond universe realized stronger returns than the benchmark Bloomberg U.S. Aggregate Bond Index (“The Agg.”).⁴ A variety of features unique to the fixed income asset class explain this performance differential.

Consider, first, the difficulty entailed in constructing an index that is – in Ben Graham’s parlance – a representative set of the fixed income universe. The Agg. contains 12,000 securities, multiples higher than the corresponding figures for the most common equity benchmarks – the S&P500, Russell 1000 and Russell 3000. On a related note, the Agg. is rather fluid in that its

composition exhibits turnover of approximately 35% per year; the turnover of the S&P500 is a comparatively minor 5%.⁴ The greater degree of flux characteristic of the bond markets is due, in part, to the tenor of these instruments; whereas equities have indeterminate lives, bonds have explicitly defined maturity dates. Moreover, in declining rate environments, issuers often call previously-issued debt prior to maturity in order to refinance at more favorable coupons. Thus, establishing a benchmark that captures these aforementioned dynamics can be onerous, but their incorporation is imperative if said benchmark is to function as an accurate representation of its target market.

Yet, despite the painstaking attention required to maintain a benchmark like the Agg., the reality is that it and related bond indices fail to capture entire segments of the fixed income universe. For instance, the Agg. excludes all floating rate debt and most securitized credits.⁴ Passive strategies that aim to replicate this benchmark will, therefore, be primarily allocated to government issues and investment grade bonds. Although returns across equity benchmarks are generally attributable to a handful of large cap. names, the case in fixed income is altogether different.⁵ In fact, a passive bond fund devoid of high yield credits and emerging market debt will lack exposure to the very instruments that drive much of the return potential within this asset class. On a related note, the Agg.'s allocations are to issues that exhibit more interest rate sensitivity than – for example – higher coupon high-yield notes; it follows, then, that a passive strategy that seeks to mimic the Agg. will have a correspondingly high duration.⁴ Of course, active managers are unconstrained in this regard and can extend or shorten duration opportunistically as circumstances warrant.

A secondary criticism routinely leveled at active management involves the fees associated with such funds. While this is [at times] a valid critique, here – too – there is a departure between the two asset classes. Fee dispersion between active and passive, although observable, tends to be less pronounced in fixed income.⁷ This finding is surprising considering the fact that active bond managers evidently add more value than their counterparts in the equities space.⁴ A potential explanation for the relatively greater efficacy of actively-managed bond funds can be found in structural disparities between the two markets. Whereas the majority of modern equities trading is facilitated by exchanges, within fixed income, this mechanism remains largely over-the-counter. The greater inefficiency inherent in an OTC trading process creates opportunity for active managers to exploit. Thus, rather paradoxically, an investor can achieve greater performance via exposure to active bond funds with attendant fee differentials that trail those of actively-managed stock funds, invalidating one of the common refrains among passive's proponents.

In brief, the sheer magnitude of the fixed income markets relative to that of equities complicates the design of a representative index. Moreover, the fact that benchmarks essentially ignore the fixed income assets with the most attractive valuations and forward return prospects suggests that investing in a benchmark-tracking passive vehicle precludes exposure to the very assets from which active fixed income managers source the majority of their alpha.^{6, 7} An additional pitfall of passive bond portfolios is their inability to benefit from the negotiated nature of OTC trading that characterizes the actively-managed segment of the market.⁷ In combination with the relatively low fees assessed for these services, the preceding arguments provide an increasingly compelling case for the merits of actively-managed fixed income allocations.

Nonetheless, as measured by assets under management, there has been a significant rotation to passive vehicle across both equities and fixed income markets; moreover, this evolution is ongoing and maintains a swift pace. In part, the growth of passive has been facilitated by an innovation intended to address retirement savings. Target Date Funds (TDFs), introduced in 1994 by Wells Fargo Investment Advisors, had a rather lackluster initial response.⁸ At the turn of the century, total Target Date Fund AUM amounted to approximately \$8 billion; however, by 2021, this figure exceeded \$6 trillion and represented 22% of all capital invested in U.S.-domiciled mutual funds.⁹

Target Date Funds' rapid accumulation of assets in the intervening decades can be ascribed to a series of legislative measures. The Pension Protection Act of 2006 reformed the regulations governing defined contribution retirement plans, eliminating previous barriers to automatic enrollment.¹⁰ Effectively, this provision revised the structure of employer-sponsored retirement programs from one of opt-in (i.e. employees had to voluntarily enroll) to one of opt-out (enrolled status became the default). Of course, what followed was a stark increase in the amount of capital managed via 401(k) plans and related vehicles. At first, these inflows were largely allocated to money market funds, but the 2006 Act also introduced the concept of the Qualified Default Investment Alternative (QDIA) which enabled plan sponsors to designate an investment product that would receive employee contributions on an ongoing basis.¹¹ By 2012, TDFs became the QDIA for the majority of 401(k) plans, and 98% of such plans included TDF products among a list of qualified securities; today, 80% of all 401(k) participants have allocations to TDFs, and the product type accounts for 42% of invested plan assets.^{12, 13}

Thus, within the span of 25 years, Target Date Funds have captured significant investor capital, and their current scale has meaningful implications for securities markets. Generally, a TDF is comprised of four exposures – domestic equity, international equity, domestic fixed income and international fixed income – which are achieved via investments in passively-managed mutual funds that track broad indices corresponding to each of these markets. By design, a TDF takes the investor's age as input in

determining his/her remaining years to retirement and consequent risk tolerance; assets are then distributed across the four exposures in a manner consistent with Harry Markowitz' Modern Portfolio Theory or some other asset allocation framework. Initially, contributions are skewed towards the equity component, but as the investor ages, the Equity/Fixed Income ratio decreases. By mandate, a TDF must adhere to pre-defined allocations established by its "glide path", and herein lies one of the severe flaws of this methodology.¹⁴

Assume a TDF with an equally-weighted target allocation (i.e. 50% stocks, 50% bonds); as time elapses, the two components will accrue returns at differing rates, and the portfolio will become overweight in one and underweight in the other. In order to adhere to its prescribed allocations, the TDF will rebalance – typically within three months – by selling the asset that has outperformed and redistributing those proceeds to the underperforming component until the weights are once again equal. Thus, the product systematically enforces a buy low/sell high dynamic. In many circumstances, systematic rebalancing is regarded as favorable for it can eliminate emotion and other behavioral features entailed in investment management. The caveat is that, when utilized across assets with materially different returns, a systematic rebalancing approach can reduce long-term performance due to continuous unloading of the higher performance asset; that is to say, systematic rebalancing introduces elements of the disposition effect.¹⁵

On a related note, the behavior of TDFs in response to The Federal Reserve's recent hawkish stance on monetary policy also warrants discussion. Increases in base rates implied greater costs of capital to firms, which prompted reduced equity valuations. Although the fixed income component of a TDF should have served to hedge equity exposure, rising rates also negatively impacted bond values. In fact, since the fixed income exposures that comprise TDFs are often in government and investment grade bonds, they were especially sensitive to increasing rates; according to Bank of America, the average duration of the fixed income segment of TDFs is between 6.5 and 7 years.¹³ Historically, correlations between equities and investment grade bonds have been negative, but since 1973, this dynamic has reversed, resulting in tighter correlations between these two asset classes.^{8,16} In an environment where economic growth is positive and interest rates are rising, the negative correlation holds. On the other hand, if – amid stagnant or reduced output – base rates are hiked in response to inflation, this relationship deteriorates.¹⁶ Such has been the case of late, and thus, the complementarity commonly assumed between equities and bonds was absent when it was most needed.⁸

Of course, if fixed income investments are held to term, they are redeemed at par, and any intervening declines in value become irrelevant. However, among those investors for whom retirement is imminent, the luxury of delaying redemptions does

not exist; their portfolios hold fixed income in greater proportions and are, therefore, more susceptible to duration risk.¹⁴ Further, an especially pernicious feature of TDFs is that redemptions from these funds are indiscriminate; an investor who requests a withdrawal cannot, for example, elect to sell more of the asset with better performance on a relative basis. Rather, he/she will be required to sell both assets in the exact ratios dictated by the fund structure, thereby realizing the associated capital losses.¹⁷ As such, recent episodes of forced selling amid drawdowns in both equity and fixed income have had materially adverse effects for retirees.

An additional failure of TDFs is their susceptibility to inflationary episodes. These products were introduced midway through a protracted disinflationary environment that spanned (approximately) 1980 to 2021.⁸ Decreasing inflation elicited a collective recency bias among the investment professionals who designed these funds, and so, they were structured without regard for the prospect that inflation could resurface. Although TDFs may feature allocations to TIPS, they are often held in inconsequential weights and therefore offer limited hedging potential. A more effective approach would be to incorporate exposures to commodities futures, REITs and other assets that either benefit from bouts of inflation or are otherwise indexed to them.⁸ But, as discussed, TDFs allocate capital according to an explicitly defined framework that is rather rigid; deviation from the aforementioned core exposures is rare.

In aggregate, the multiple shortcomings exhibited by TDFs – including their rebalancing mechanics, duration risk, inflation risk and the outdated assumption of equity-fixed income correlations upon which they are structured – resulted in their recent disappointing performance. A Morningstar release claimed that the average TDF with a 2025 target date returned -14.7% through July 2022; funds with target dates further in the future fared worse.¹⁸ In light of these findings, asset managers are increasingly advising that TDFs incorporate high yield, CMBS, RMBS and other off-benchmark instruments that are less susceptible to interest rate risk.¹⁹ Although they encourage maintaining the TDF vehicle itself, the reality is that adjustment to include these off-benchmark assets is effectively an active management approach to the fixed income component of TDFs; stated plainly, this would be active masquerading as passive. It appears, then, that passive management has critical flaws not only when applied to discrete fixed income portfolios but also when utilised in the context of these blended equity-bond TDFs where it has already been readily adopted.

Reiterating an earlier point, the justification for adopting passive investment procedures in fixed income is rooted in passive's claimed success within equities markets, with proponents citing increased market efficiency and reduced fees as its primary advantages. However, a growing body of evidence calls in to question the merits of passive even in this space where its virtues

have largely been extolled. UCLA Professor Valentin Haddad argues that passive investing has altered the demand curves observed for stocks such that they exhibit greater inelasticity (i.e. passive has reduced investor sensitivity to securities prices).²⁰ This model – which Haddad has termed the *inelastic markets hypothesis* – contends that markets have actually become more inefficient as a consequence of passive’s growing influence.²⁰ Although contrary to the common EMH refrain, this observation is entirely plausible, and we can revisit the mechanics of Target Date Funds for a demonstration of the underlying rationale.

The previously-discussed legislative reforms responsible for TDFs’ popularity effectively constrain the decision set available to investors. Specifically, by the QDIA provision, only a limited range of investment options are presented to employees saving for retirement via a 401(k) or similar program. This, in combination with biweekly inflows to TDFs resulting from compensation withheld for defined contribution plans, creates an automatic bid for a select set of securities – namely, funds tracking U.S. equity and fixed income indices. Ultimately, as investors make contributions to TDFs on an automatic basis and assets accumulate in these vehicles irrespective of price, price discovery is obfuscated and asset price distortions result.²¹ By invoking the Grossman-Stiglitz paradox, we can develop greater clarity around this concept. The theory of efficient markets claims that available information is accurately reflected in prices, obviating the need for active management. However, the process of incorporating information into prices is, itself, reliant on the activity of those engaged in active management; thus, as they are ejected from markets, price discovery becomes increasingly challenged.

At present, we have only witnessed the effects of inflows into these TDF structures, so their behavior in the opposite scenario cannot be ascertained from history. However, we can presume that an event that elicits mass outflows – for instance, a meaningful disruption in employment due to extensive layoffs, widespread retirement among Baby Boomers or a pandemic that actually affects those workers who receive employer-sponsored retirement benefits – could result in a precipitous decline in asset values. In an inelastic market, asset prices are determined – not by macroeconomic fundamentals or business-specific ones – but by flows. When this framework applies, the asset allocation mechanism becomes distorted; evidence of this claim is already manifest in equities markets. We have also discussed – at length – the idiosyncrasies of the fixed income space and how they render this asset class inappropriate for passive penetration. Moreover, the lackluster performance of Target Date Funds amid inflation and a rising rate environment provides further arguments against passive investment strategies. Thus, a preponderance of evidence suggests that passive has critical pitfalls for securities markets generally and for fixed income specifically.

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