HIGH YIELD: THE DRAWBACKS OF A PASSIVE APPROACH

August 2018

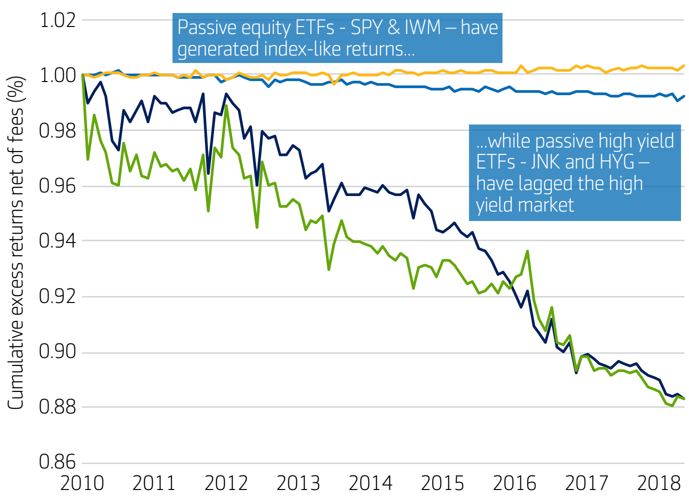
The active versus passive debate has dominated the institutional market in recent years as passive equity strategies have witnessed unprecedented growth. The popularity of passive investing, or indexing, is now attracting fixed income investors. Investors may choose a passive strategy as a relatively inexpensive way to gain broad market exposure and generate index-like returns. While this may hold true for equities, we believe this expectation is flawed when it comes to fixed income, particularly lower-quality or less liquid credit. In this paper, we assess the historical performance and potential drawbacks of passively managed high yield bond strategies.

Historically, passive high yield ETFs have consistently underperformed

Within the equity market, passive exchange-traded funds (ETFs) have generally been able to generate index-like returns given de-minimis transaction costs, ample liquidity and low fees that are typical of passively managed funds. As tempting as it may be to apply the same cost-saving concepts to fixed income, we believe there are meaningful differences between equity and fixed income markets that cannot be ignored. Passive equity ETFs, such as SPDR S&P 500 (SPY) and iShares Russell 2000 (IWM), have historically kept pace with the broader equity market and their respective benchmarks, more or less. However, the two largest high yield passive ETFs, SPDR Bloomberg Barclays High Yield (JNK) and iShares iBoxx High Yield (HYG), have generally lagged the broader high yield market. Refer to Exhibit 1.

Exhibit 1: Equity ETFs have generally kept pace with market indices, while high yield ETFs have generally lagged the broad high yield market

Cumulative excess returns of passive ETFs relative to market indices January 1, 2010 – June 30, 2018



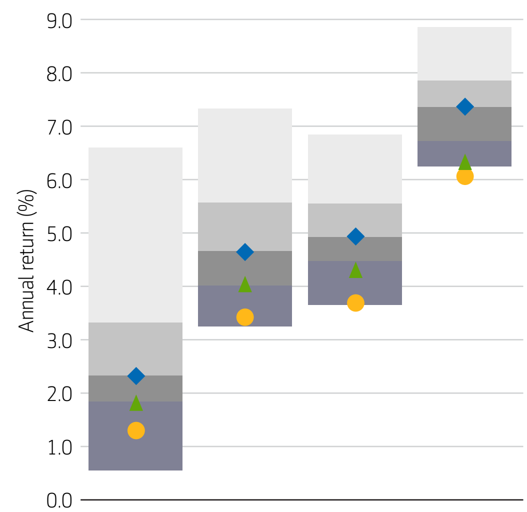
- SPDR S&P 500 ETF (SPY) vs. S&P 500 Index
- iShares Russell 2000 ETF (IWM) vs. Russell 2000 Index
- SPDR Bloomberg Barclays High Yield Bond ETF (JNK) vs. Bloomberg Barclays US Corporate HY Index
- iShares iBoxx $ High Yield Corporate Bond ETF (HYG) vs. Bloomberg Barclays US Corporate HY Index

Source: Bloomberg as of June 30, 2018. Past performance is not indicative of future results. The high yield ETFs mentioned above do not track the Bloomberg Barclays US Corporate HY index. This index is a commonly used high yield benchmark and is shown to represent the broad high yield market.

In addition to underperforming the broad market, passive high yield ETFs JNK and HYG have also underperformed actively managed strategies, on average (Exhibit 2).

Exhibit 2: Historically, passive high yield ETFs have generally underperformed the median actively managed strategy

Net returns of US High Yield Fixed Income eVestment universe vs. passive high yield ETFs as of June 30, 2018



Net annualized returns	1 year	3 years	5 years	10 years
◆ Median US High Yield Strategy (eVestment)	2.80%	5.10%	5.36%	7.87%
● SPDR Bloomberg Barclays High Yield Bond ETF (JNK)	1.23%	3.48%	3.83%	6.02%
▲ iShares iBoxx $ High Yield Corporate Bond ETF (HYG)	1.83%	4.10%	4.24%	6.22%

Source: eVestment and Morningstar. **Past performance is not indicative of future results.** The US High Yield Fixed Income universe contains similar strategies that primarily invest in high yield debt across multiple sectors. The universe contains a variety of investment vehicles including, but not limited to, separate accounts, mutual funds and other commingled funds. The average management fee for a $50 million mandate in the US High Yield Fixed Income universe is 0.52%. The total gross expense ratio for JNK and HYG is 0.40% and 0.49%, respectively. Refer to disclosures for important information about eVestment peer analysis. Production date: 7/27/18.

Two reasons why passive high yield funds have underperformed

As outlined in Exhibit 1, passive high yield ETFs JNK and HYG have tended to underperform their stated benchmarks, and the broader high yield market, primarily due to two reasons: relatively high management fees and elevated trading costs.

1. **Relatively high cost of high yield passive ETFs**
   Theoretically, the passive ETF could replicate all holdings represented in the benchmark and perfectly track the index returns. However, passive strategies still charge fees for their management services. For example, the two largest passive high yield ETFs, iShares iBoxx US Dollar High Yield ETF (ticker HYG) and SPDR Bloomberg Barclays High Yield ETF (ticker JNK), charge management fees of 49 basis points 40 basis points, respectively, as reported by the ETF manager. Naturally, if the aforementioned high yield ETFs perfectly replicate the index holdings, then one can expect the ETFs to underperform their benchmarks by the stated fee, all else equal.

2. **Performance drag from trading costs**
   In an effort to replicate benchmark holdings, passive managers must engage in trading to adjust the portfolio for index constituent changes. For example, JNK tracks the Bloomberg Barclay's Very Liquid High Yield Index which experienced an average index constituent turnover of approximately 40% for the period 2014 - 2017. In comparison, the average turnover in JNK for the same period was approximately 42% as reported by Morningstar. Given the meaningful bid-ask spread within the high yield market, we estimate that a 40% portfolio turnover could result in trading costs of approximately 40 - 50 bps per annum.

High yield liquidity and ETF benchmark selection

In a more liquidity strained asset class like high yield, one cannot ignore the impact market liquidity may have on passive high yield ETF strategies. In times of stress, the liquidity factor may become increasingly important as replicating index holdings becomes more challenging.

Many passive high yield ETFs are designed to represent the more liquid portion of the broader high yield market. As such, the ETFs have strategically selected benchmarks that represent the more liquid portion of the high yield market. Since the less liquid securities may offer higher yield potential, the returns can differ materially between the broad-based high yield market and the more liquid subset.

For the period January 2010 through June 2018, the Bloomberg Barclays US Corporate High Yield Index returned 7.55% (annualized) while the Bloomberg Barclays Very Liquid High Yield Index (JNK's benchmark) generated 7.18% (annualized), 37 bps lower than the broad market index. We think it is reasonable for an investor to expect to get paid more for less liquid names and therefore expect that the broad market index will outperform the more liquid subset over extended holding periods.

Beware of HYG's unique benchmark

HYG's benchmark is the Markit iBoxx USD Liquid High Yield Index. This index differs from most high yield indices in that it includes transaction costs. In other words, when names are added or removed from the index the returns reflect the bid/ask spread, thus lowering the index returns.

Exhibit 3 shows that these indices' returns differed substantially. Notably, the benchmarks used by the HYG and JNK passive high yield ETFs can, and do, generate materially different results while the annualized net returns of HYG and JNK were very similar.

Exhibit 3: Not all high yield benchmarks are created equal

January 1, 2010 - June 30, 2018

Passive High Yield ETF	Annualized Return
SPDR Bloomberg Barclays High Yield Bond ETF (JNK)	5.92%
iShares iBoxx $ High Yield Corporate ETF (HYG)	5.96%

High Yield Market	Index	Annualized Return
Broad High Yield Market	Barclays US Corporate High Yield Index	7.55%
Liquid Portion (JNK's benchmark)	Barclays Very Liquid High Yield Index	7.18%
Liquid Portion (HYG's benchmark)	iBoxx High Yield Liquid Index	6.59%

Source: Bloomberg.

Summary

As the popularity of passive management continues to permeate the investment landscape, we believe it's prudent for investors to consider some of the drawbacks of indexed fixed income products. For instance, we believe passively managed high yield strategies are likely to persistently underperform their high yield benchmark for two primary reasons: relatively high management fees and elevated trading costs may result in a drag on performance versus the index. Additionally, in a more liquidity strained asset class like high yield, one cannot ignore the impact market liquidity may have on passive high yield ETF strategies. Benchmark selection is also an important consideration when evaluating passive high yield ETFs. Overall, while passive may have a place in some investors' portfolios, we believe an actively managed approach to high yield bonds can provide enhanced opportunities to outperform the benchmark.

Disclosure

Past performance is not indicative of future results. Unless otherwise indicated, returns for longer than 12 months have been annualized.

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