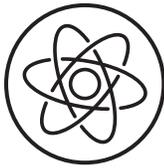


The Evolution of High Yield Bond Investing



High yield bonds have advanced from a specialty fixed income investment to a strategic, mainstream asset held across most diversified portfolio allocations. Once viewed as being the “penalty box” for wayward public debt issuers, over the years the sector has transformed into a dynamic, competitive marketplace for capital raising and refinancing. A multitude of forces were needed to bring high yield out of the shadows and into the spotlight. Now the sector is ready for a further evolution that combines earlier high yield principles with new techniques to again deliver truly high income strategies for today’s investors.

HUMBLE BEGINNINGS

The exact origins are subject to debate although most agree that modern high yield debt (high yield) underwriting traces back to the 1980s. Prior to then, high yield was comprised of formerly investment grade issuers that had fallen on hard times. By the mid-1980s, the concept of newly issued high yield debt as a source of capital had gained general acceptance among many investment banks and segments of corporate America. Quickly, the use of high yield bonds became a preferred source of capital for new and fast-growing industries like cable television, telecommunications and entertainment. Additionally, new-issue high yield debt fueled a surge in leveraged buyouts (“LBO”), highlighted by RJR Reynolds in 1998, of the novel, “Barbarians at the Gates,” fame. Despite excesses in select LBOs, investors appeared to gain comfort with the risk/return dynamic of the sector and embraced it as an accepted financing vehicle for companies.

High yield investment management, however, travelled a somewhat different path. Into the 1990s, high yield was not considered a “core” holding in typical asset allocation schemes. This caution seemingly was validated with the burst of the dotcom bubble which demonstrated the risk of funding untested business models using high yield debt. Yet, the sector soon rebounded and high yield performed well during 2004-2006 when the Federal Reserve raised policy rates from 1% to 5.25%, a major test of resiliency.

Duration is how sensitive your investment or a portfolio is to a change in interest rates. You will often see it expressed as a number of years – the higher the number the more volatile will be the expected change. Historically, rising interest rates have often meant falling bond prices, while declining interest rates have meant rising bond prices.

The yield to worst (YTW) is the lowest potential yield that can be received on a bond without the issuer actually defaulting and this metric is used to evaluate the worst-case scenario for yield to help investors manage risks and ensure that specific income requirements will still be met even in the worst scenarios.

The option-adjusted spread (OAS) is the measurement of the spread of a fixed-income security rate or portfolio and typically the Treasury securities yield (often referred to as the risk-free rate) and that spread is added to the fixed-income security for comparison purposes.

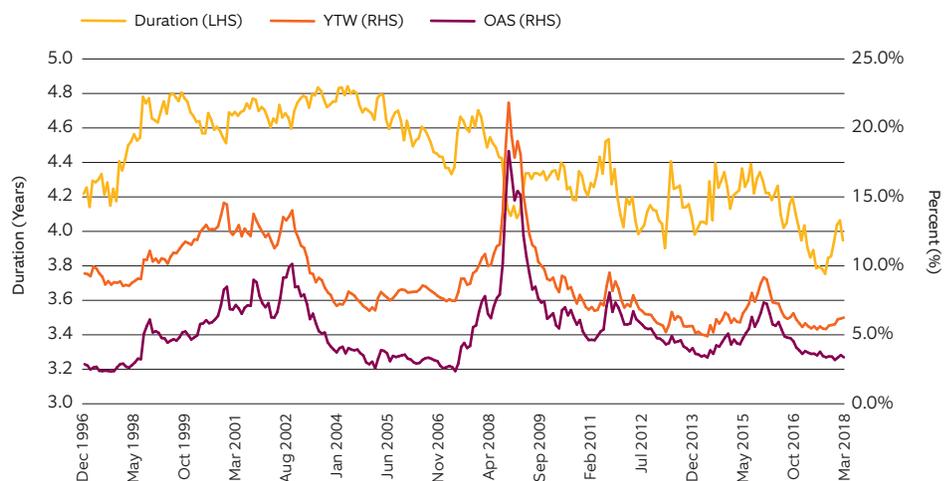
Throughout this time investors seeking exposure to high yield primarily employed mutual funds, most of which were actively managed. The investment philosophy underpinning actively managed high yield funds held that fundamental credit analysis and skilled portfolio management could uncover under- and over-valued securities. Historically, these portfolios have promised investors both high current income and some capital appreciation through security selection. Unfortunately, we believe asset managers' best efforts failed to generate consistent alpha. The lagging results were attributed to a confluence of considerations, including trading/liquidity challenges, the limited availability of many holdings in market weighted high yield indexes and restrictions on issuer specific credit information (e.g. fair disclosure regulation). Our analysis shows that managers have generally experienced a persistent inability to produce returns above market weighted high yield benchmarks.

TRANSFORMATIONAL ADOLESCENCE

Risk assets of every type were challenged during the credit crisis and Great Recession of 2007-2009. High yield was no exception as credit spreads, which are the difference between one debt security and another debt security with the same maturity but of lesser quality, widened dramatically until 2009 when we believe the Federal Reserve (Fed) introduced Quantitative Easing ("QE") which turbo-charged investor risk appetites.

Exhibit 1 below shows data for the past 20+ years for a widely used market capitalization weighted benchmark index, the Bloomberg Barclays US Corporate High Yield Bond Index. The graph captures historical duration, yield-to worst ("YTW") and Option Adjusted Spread ("OAS") data, showing how the high yield market weathered both the dotcom bubble and Great Recession.

EXHIBIT 1: BLOOMBERG BARCLAYS US CORPORATE HIGH YIELD BOND INDEX
Historical Duration, Yield to Worst and OAS



Source: Barclays Live from December 1, 1996 - March 30, 2018. The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. **Past performance is not indicative of future results.** It is not possible to invest directly in an index.

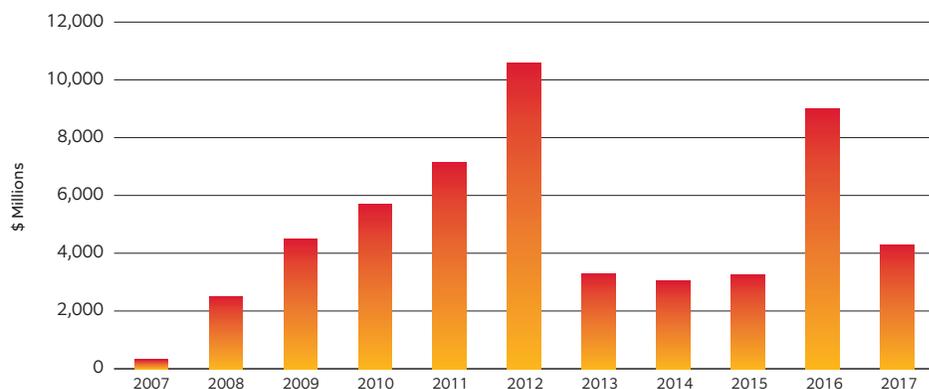
Beta is a statistical measure of the volatility, or sensitivity, of rates of return on a portfolio or security compared to a market index. The beta for an ETF measures the expected change in return of the ETF relative to the return of a designated index. By definition, the beta of the Standard & Poor's (S&P) 500 Index is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the S&P 500 Index in rising marketing and 10% worse in falling markets.

As seen in Exhibit 1, the spike in late 2008 in YTW reflects a widening of fixed income OAS against steady risk free rates. The decline in YTW starting in 2009 reflects the impact of QE on high yield OAS. The overall performance of high yield investing along with the increase in overall yields during the credit crisis helped to raise awareness of and interest in the asset class. Other traditional income-focused investment options, such as Treasuries, investment grade corporates and Mortgage-backed Securities (MBS) were made unattractive by QE which drove quality-focused market yields sharply lower. The broadening acceptance of high yield focused attentions on the performance results and costs associated with actively managed funds. This led both asset managers and investors to consider high yield investments with betas that exhibited lower cost. In response, the first batch of high yield ETFs launched in 2007, all passively managed to rules-based indexes.

Initially, high yield ETFs were panned by legacy high yield active managers. They predicted dire market behaviors and atypical performance outcomes due to the ETFs' all-day trading liquidity and full price transparency. Launches of new high yield ETFs paused between 2008 and 2010 but then surged starting in 2011.

This trend is reflected in data of fund flows into high yield ETFs shown in Exhibit 2.

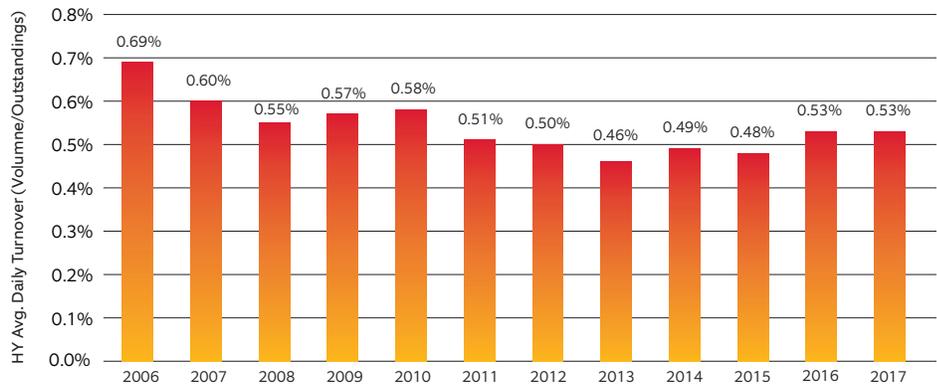
EXHIBIT 2: HIGH YIELD ETFs – NET FLOWS



Source: Morningstar as of December 31, 2017.

We believe the expansion of high yield ETFs has net contributed to overall trading liquidity in the high yield bond market. Exhibit 3 shows daily average trading volume as a percentage of all high yield debt outstanding. Note the improvement in market liquidity after 2008 (aided by net flows into ETFs), the downturn in secondary liquidity between 2013 and 2015 (when net flows into ETFs slowed), and the rebound in liquidity during 2016.

EXHIBIT 3: HIGH YIELD AVERAGE ANNUAL TRADING VOLUME



Source: Trade Reporting and Compliance Engine (TRACE) is administered by FINRA and is the primary industry source for historical OTC secondary market bond transaction information. The analysis is based on average annual volume as of year end during the time period of 2006 - 2017.

The ETF creation process occurs when an investor enters an order to purchase a large number of ETF shares and there are not enough available shares on the secondary market. A financial entity known as an Authorized Participant (AP) then borrows or buys the quantities of the named securities that either exactly mirror or are a representative sampling of those in the ETF's portfolio in order to build what is called a "creation basket." This basket of underlying securities are turned into "shares" of the ETF which may be sold on a stock exchange where investors can purchase them as they would any publicly traded stock. The redemption process is simply the opposite of the creation process.

By augmenting market liquidity, we believe ETFs have been a driving force behind another benefit to investors, price discovery. Because most high yield securities do not trade regularly, the methodology used by mutual funds (i.e. to calculate an end of day Net Asset Value (NAV)) depends on matrix pricing for each holding. Matrix pricing is an estimation derived from quoted prices for securities with the same maturities and ratings rather than a fixed price for a designated security. Matrix means interpolating within the matrix format and has a perceived benefit of potentially smoothing NAV price movements. During periods of market volatility, a security that is not actively traded but priced using a matrix is an estimated valuation. Only when a security is actually traded does the investor in a fund have a reflection of the actual pricing impact. Investment managers tend to prefer matrix pricing during down markets as it smooths the price decline experienced by the fund. The reverse is often true during a rallying market. ETFs have brought more trading activity and valuation transparency to the high yield bond market through both secondary trading and the creation/redemption process of issuing or cancelling shares in the ETFs. With ETFs, we believe a truer market valuation of securities is realized for every investor in all market environments.

Some legacy investment managers anticipated that high yield ETFs would be a disruptive force that would harm trading liquidity during downturns. High yield ETFs did indeed cause some discomfort for legacy high yield investors but we believe they also brought much needed competition and innovation to the high yield space. As of June 30, 2018, 57 high yield ETFs were available to investors. Most of these are, in one form or another, weighted by market capitalization, passively managed and focused on the large, liquid high yield debt issuers. Some products target the highest quality segments of high yield while others target duration exposure. Innovative data analysis, sorting and security selection tools and techniques were developed in tandem with and are used in managing many of these products. When viewed in aggregate, we believe that these products represent version 1.0 of high yield fixed-income ETFs.



FOCUSING ON YIELD

The evolution of high yield has been supported by low market interest rates, tight credit spreads, shifting norms in corporate financial management, regulation, changing investor risk tolerances and new portfolio construction models. High yield investing has grown, matured and transformed over the decades into a familiar but distinctly different asset class. How the passage of time impacts the sector's investment characteristics may be reflected in snapshots of the Bloomberg Barclays US Corporate High Yield Index ("HYI"), showing how "market" exposure in the space has evolved. Exhibit 4 below shows various time frames of HYI's metrics for 4 distinct monthly time frames by dollar amount, number of issuers, credit profile and OAS over risk-free interest rates. We believe the decline in the index's OAS is noteworthy.

EXHIBIT 4: BLOOMBERG BARCLAYS US CORPORATE HIGH YIELD BOND INDEX METRICS

	Dec 1990	Dec 2000	Dec 2010	Dec 2017
Mkt Value (\$B)	43.9	263.0	930.3	1,338.9
Issues	285	1,099	1,822	2,043
Option Adj. Spread (bps)	N/A	849	526	343
Rating Level				
Ba	16%	37%	39%	44%
B	67%	54%	42%	40%
Caa	17%	8%	17%	14%
Ca-D	5%	0%	2%	1%
NR	N/A	1%	0%	2%

Source: Barclays Capital LIVE as of Dec 31, 1990, Dec 31, 2000, Dec 31, 2010 and Dec 31, 2017. The rating level represents the average rating of the fixed income securities within the associated rating level by Moody's and Standard & Pools.

Idiosyncratic risk can be thought of as the factors that affect an asset such as a bond and its underlying company at the microeconomic level.

Specific macro and market events are constantly shaping financial markets and the way investors choose to define their level of risk. For high yield, one event in particular needs to be singled out: the May 2005 junk downgrading of auto giants General Motors and Ford Motor. Transitioning these two mega-issuers out of investment grade and into high yield indexes was a monumental undertaking. The idiosyncratic company risk introduced into market-weighted high yield indexes by adding these two issuers (which became 11.8% of total index exposure as of May 30, 2005) confused investors and caused providers to quickly launch issuer-constrained versions of market-weighted indexes. One of the most widely followed is the Bloomberg Barclays U.S. High Yield 2% Issuer Constrained Index which caps individual company exposure at 2% of the overall index. This simple solution sought to address a risk not previously encountered – extreme company specific concentration. At face value the 2% issuer cap appeared to provide a benefit to investors. However, upon contemplation, and with the benefit of hindsight, we believe it also served to undermine core investor attractions of the asset class: access to the potentially generous yields afforded by exposure to higher risk debt securities.

BACK TO THE FUTURE

For an investor, a fixed income high yield strategy focused on yield may seem oxymoronic. After all, historically fixed income plays two important roles in a portfolio – diversification and income generation. Additionally, income generation, by definition, is a function of yield. Consider the following analysis of fixed income investment returns:

EXHIBIT 5: BLOOMBERG BARCLAYS US CORPORATE HIGH YIELD BOND INDEX (Dec 1993 – Apr 2018)



Source: Barclays LIVE, Northern Trust Asset Management as of April 30, 2018.

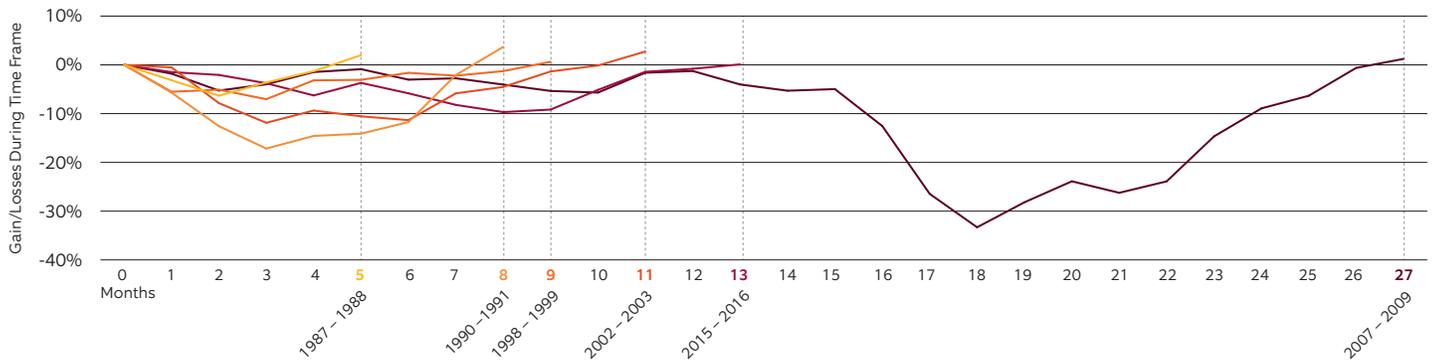
Research by the Northern Trust Asset Management Fixed Income Group of the Bloomberg Barclays US High Yield Index indicates that, historically, the coupon/yield on a fixed income portfolio contributed more than 100% of overall returns for the December 1993 to April 2018 period. This research confirms prior findings, including a study by Gauthier and Goodman¹ that showed 95.3% of expected fixed income returns came from the cumulative effect of duration positioning and credit risk (which of course are the most significant inputs to the *yield* of a fixed income portfolio). Analysis of historical return components, as seen in the exhibit above, shows that, in order to maximize the value of high yield as an investment, investors should consider focusing on maximizing exposure to yield in constructing and managing their high yield portfolio.

The power of yield in a high yield portfolio is further evidenced by the role yield income plays in compensating for higher credit risk. Data in Exhibit 6 illustrate six periods of significant OAS widening and the subsequent number of months required to recoup the related price decline. Because of the high current income, price losses can be recovered without the need for full retracement of OAS. As an example, in the oil industry led decline in 2015, total return losses were recovered in 13 months, while OAS was still 161 basis points wider. This data demonstrates the power of high current income within a high yield portfolio and why a strategy focused on maximizing the value in yield may be beneficial to investors.

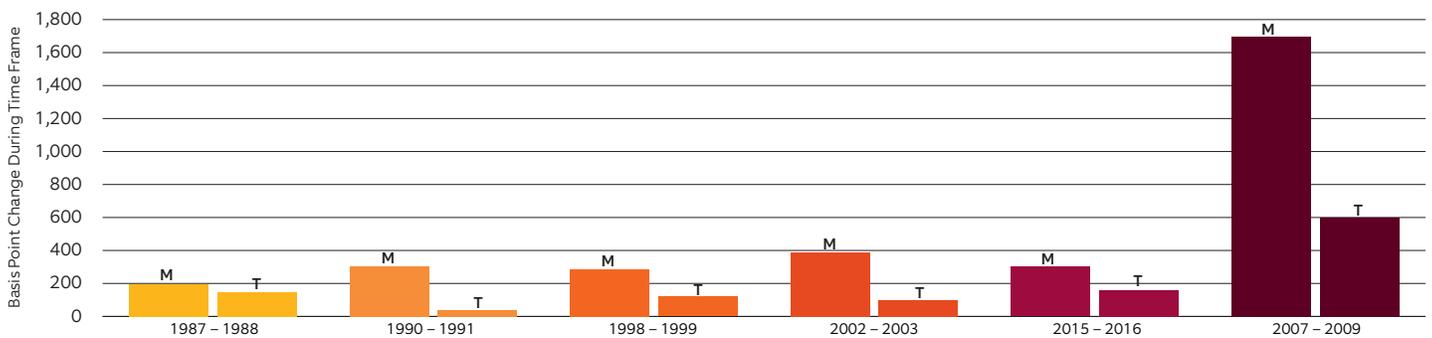
¹ Risk/Return Trade-Offs on Fixed Income Asset Classes, 2003, Gauthier, Laurent, Goodman, Laurie, Fixed Income Portfolio Management – Volume 4 by Frank J. Fabozzi

EXHIBIT 6

MONTHS NEEDED TO REGAIN LOSSES FROM HIGH YIELD SPREAD WIDENING



CHANGE IN OAS: MAXIMUM (M) & OVER TOTAL TIME PERIOD (T)



Sources: Bloomberg, Barclays Capital, Northern Trust Asset Management. Analysis for both charts is derived from the Bloomberg Barclays US Corporate High Yield Bond Index during six distinct time periods. **Past performance is not indicative of future results.** It is not possible to invest directly in an index.

The next frontier in high yield is applying the lessons gleaned from the 1.0 version of high yield ETFs towards a yield maximization high yield strategy. Over time, we believe high yield has morphed into a more quality focused and thus lower yielding asset class. Too often when investors today chose “market” exposure to high yield they are forced to leave income generation potential on the table. Likewise, portfolio construction frameworks that categorize assets into “risk” and “risk control” buckets are typically underwhelmed by the risk characteristics of market weighted high yield products. We believe investors may be better served by high yield version 2.0 products that combine contemporary approaches with the keystone principle of high yield investing: focus on the “yielding” aspects of high yield.

Accomplishing this starts with creating an investable (but not market weighted) high yield index designed to generate higher nominal returns. This investor challenge underscores the development of our High Yield Value-Scored US Bond Fund (HYGV), which uses innovative security selection and weighting methodologies that focus on maximizing factor inputs for value, while managing other risk factors. Through this strategy of concentrating on the primary driver of high yield returns, FlexShares aims to bring the focus on ‘yield’ back to high yield.

FIND OUT MORE

The FlexShares approach to index-based investing is, first and foremost, investor-centric and goal oriented. We pride ourselves on our commitment to developing products that are designed to meet real-world objectives for both institutional and individual investors. If you would like to discuss the attributes of any of the ETFs discussed in this report in greater depth or find out more about the index methodology behind them please don't hesitate to call us at 1-855-FlexETF (1-855-353-9383) or visit www.FlexShares.com.

IMPORTANT INFORMATION

Before investing, carefully consider the FlexShares investment objectives, risks, charges and expenses. This and other information is in the prospectus and a summary prospectus, copies of which may be obtained by visiting www.flexshares.com. Read the prospectus carefully before you invest.

Forside Fund Services, LLC, distributor.

FlexShares High Yield Value-Scored Bond Index Fund (HYGV) invests in high yield securities, which are considered highly speculative, and is subject to greater credit risk, price volatility and risk of loss than if it invested primarily in investment grade securities. There is a higher risk that an issuer will be unable to meet principal and interest rate payments on an obligation and may also be subject to more substantial price volatility due to such factors as interest rate sensitivity, market perception of credit worthiness of and general market liquidity than if the fund invested in investment grade securities. The fund may invest in distressed securities, which generally exposes the fund to risks in addition to investing non-investment grade securities. These risks can adversely impact the Fund's return and net asset value. When interest rates rise, the value of corporate debt can be expected to decline. The value of the securities in the Fund's portfolio may fluctuate, sometimes rapidly and unpredictably at a greater level than the overall market. The Fund may invest in derivative instruments. Changes in the value of the derivative may not correlate with the underlying asset, rate or index and the Fund could lose more than the principal amount invested. The Fund will concentrate its investments (i.e., hold 25% or more of its total assets) in a particular industry or group of industries to approximately the same extent that the Underlying Index is concentrated. The fund is also subject to the risk that the Fund's investment in companies whose securities are believed to be undervalued will not appreciate in value as anticipated.

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