



# Transforming the Bond Markets with Fixed Income ETFs

by Matthew Tucker, CFA and Jennifer Grancio



## Introduction

In July 2002, iShares® launched the iBoxx\$ Investment Grade Corporate Bond Fund (LQD) and forever changed the way investors could access the bond markets—on an exchange, with clarity of pricing and observable liquidity. For the team at iShares, the launch represented a natural progression from equity based exchange traded funds (ETFs) to fixed income ETFs, but it would be years before the benefits of these revolutionary products would be fully realized by investors.

The ETF movement to that point had been fueled by a desire from equity investors to quickly and efficiently trade portfolios of stocks in a single transaction. The equity exchange market had long enjoyed liquidity and price transparency and the ETF served to amplify those features. But the over-the-counter fixed income market was notoriously inefficient by comparison, with deals struck privately between parties and liquidity and transparency largely unattainable. Was it possible to put the over-the-counter fixed income market onto the exchange? How would liquidity be created for these products? What would a hybrid bond-equity product look like? Bonds had been listed on the NYSE and other exchanges for years but had never garnered much interest from traders or investors. Would an ETF suffer the same fate? As a pioneer of equity ETFs, iShares had faced skepticism before and knew that these new fixed income products would require a fundamental shift in how people thought about bond investing—and that this change would not occur overnight.

As it turned out, putting the fixed income over-the-counter market onto the exchange did work and it created a new investment solution that combined the benefits of both markets: exchange liquidity and transparency married with targeted bond market exposure. The first four funds that were included in that initial launch in July 2002—LQD and three Treasury funds—had over \$42 billion in assets under management as of June 30, 2012.<sup>1</sup> Fixed income ETF markets have taken off in the US, Europe, Canada, Mexico and Asia. Earlier this year Australia became the latest to join the movement as iShares launched the country's first three bond ETFs on the Australian Securities Exchange. The global fixed income ETF market has expanded to include more than 550 funds, covering virtually every sector and fixed income asset class, with \$302 billion in assets, as of June 30, 2012, according to Bloomberg data.

The benefits provided by fixed income iShares ETFs were initially seen as the same features that fueled the equity ETF market growth: low management fees, tax efficiency and transparency of

holdings. These features resonated with investors and drove the early growth of the fixed income ETF market as well. As the funds grew, investors began to value two additional features of the fixed income ETF: liquidity and market visibility. For the average investor it has historically been difficult to trade individual bonds efficiently, to find the right bond to purchase and to sell a bond when needed. The ETF provided exchange-traded liquidity that allowed investors to more readily manage their fixed income investments. The second feature was market visibility. Just ask yourself the question, “How did the bond market perform today?” You probably don't know. That's because while most investors are able to see movements in US Treasury yields, the vast majority have very little visibility into other fixed income asset classes. Before the emergence of ETFs, the intra-day movements of fixed income investments were a mystery to all but the largest institutional investors. For the first time, iShares ETFs provided all investors with visibility into a wide range of fixed income markets throughout the day.

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As 2002 came to a close, a *BusinessWeek/USA Today* special report named the fixed income ETF one of the best new products of the year. A new ETF category was born but it was really just the beginning of the journey. Even today, after a decade of continuous growth, fixed income ETFs are still just scratching the surface of their potential. As they continue to be more fully embraced by individuals, advisors and financial institutions ETFs will take their place alongside other fixed income capital market instruments. An evolutionary step for the market as well as end investors.

To take a look at how the fixed income ETF market has changed over the past ten years, it is helpful to divide the growth of the market into three distinct stages, each driven by shifts in provider and investor behavior, and a fourth that explores where we at iShares believe that the market is headed.

1. Source: BlackRock.

## Stage 1

### Creating a New Market (2002–2006)

In the first few years of fixed income ETFs there were still only a handful of funds available, with slow and steady growth and usage by investors. The first four fixed income ETFs from iShares provided access to the more liquid segments of the fixed income market: US Treasuries and liquid corporate bonds. These products included not only the LQD but also three Treasury funds, the iShares Barclays 1-3 Year Treasury Bond Fund (SHY), the iShares Barclays 7-10 Year Treasury Bond Fund (IEF) and the iShares Barclays 20+ Year Treasury Bond Fund (TLT). These funds were followed in 2003 by the iShares Barclays Aggregate Bond Fund (AGG), which is benchmarked to the broad Barclays Aggregate Index, and the iShares Barclays TIPS Bond Fund (TIP), which provides exposure to Treasury Inflation Protected Securities.

The building and launching of these funds required a re-thinking of the ETF structure itself. How could over-the-counter bonds be packaged into an ETF and then listed on an exchange? How would some of the properties of bonds like accrued interest, by appointment trading and a lack of price transparency be addressed? The innovation of the fixed income ETF was not only in conceiving of the idea, but, more importantly, in successfully delivering it to the market. There were those in the industry who questioned the viability of the fixed income market. But as a pioneer in the equity ETF category, iShares recognized that the launch of a new category of ETFs would require not only a strong belief that the product could be good for investors but also as a great deal of patience as adoption and asset gathering continued.

By the end of 2006, the global fixed income ETF market had grown to \$32 billion AUM from only two providers.<sup>2</sup> In the US, iShares was still the only provider and the six fixed income ETFs available held \$20 billion in assets—certainly a respectable amount, but still a tiny fraction of the overall fixed income market. As this was a new concept we knew that it would take time for fixed income ETFs to gain traction with investors, financial advisors and other providers. We also believed that at some point acceptance would reach critical mass and other providers would follow iShares' lead into the market, creating vibrant competition and continued market growth.

## Stage 2

### Additional Providers Enter the Market (2007–2008)

By 2007 there was a growing understanding that the “experiment” had in fact worked. The steady growth and acceptance of the fixed income iShares line-up had proven that there was an investor appetite for buying fixed income on an exchange. More importantly, investors were hungry for more. In early 2007, a significant event occurred when the Securities and Exchange Commission (SEC) made changes to how fixed income ETFs could be approved and listed on exchanges. Standard fund structure and listing rules were established, making it easier for all providers to bring funds to market. The establishment of these rules, combined with the growing investor demand, triggered a flood of new funds in the market. iShares itself launched 16 more funds during this period—including the iShares J.P. Morgan USD Emerging Markets Bond Fund (EMB), the iShares S&P National AMT-Free Municipal Bond Fund (MUB) and the iShares Barclays Mortgage-backed Securities Bond Fund (MBB). By the end of 2008, the size of the market had almost tripled to \$56 billion and there were 61 fixed income ETFs in the US, available to investors from eight providers.

Along with the growth in funds and AUM came an increase in trading liquidity, though at a gradual pace. At this point in their development fixed income ETFs were still viewed by most investors and financial advisors as an alternative to mutual funds and other managed accounts. All fixed income ETFs in the market were index funds, and that was the primary point of differentiation versus predominately active mutual funds. What the markets had not yet fully grasped was that by placing a basket of fixed income securities on an exchange the ETF provided a new way to access liquidity. The ETF was thus in some ways more akin to other exposure vehicles in the market such as futures and swaps. Full comprehension of this fact—and awareness of its ramifications—was not really made by the market until the Financial Crisis of 2008. This event forced fixed income investors to look for new ways to invest in the bond market—and triggered an explosion in the usage of fixed income ETFs.

2. Source: Bloomberg.

## Stage 3

### The Hunt for Liquidity Accelerates Usage (2009–2012)

As the fixed income ETF market was gaining assets and investors were seeing new funds launch, a calamity happened at the end of 2008: the financial markets imploded. By any measure this was a catastrophic event, one that nearly broke the financial system itself. It was also a watershed event for fixed income ETFs.

As financial markets descended into chaos in late 2008, the over-the-counter bond market became severely impaired. Trading volume in markets like corporate bonds fell by 50%. Why? Liquidity in the bond market is supplied by broker/dealers, and as many of these firms were struggling with their own financial issues they pulled back from making markets in bonds. As a result it became harder for everyone in the market to trade bonds. What do you do when something stops working? You look for an alternative. And that is when many investors discovered that they could now trade bonds on the exchange through an ETF. Fixed income ETF trading volumes spiked, increasing 800 to 1,000 percent for some funds during this time period, according to Bloomberg data. And with increased volumes came increased asset flows and broader investor usage. The Credit Crisis served as an inflection point for the fixed income ETF industry and it has never looked back. Even as the financial system has repaired itself over subsequent years the growth of the fixed income ETF market has persistently continued.

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But the growth of fixed income ETFs has also led to fundamental shifts in the fixed income market itself. The explosion of fixed income ETF market growth was driven by the discovery that ETFs could provide a liquid vehicle for managing risk and adjusting fixed income exposure, one that is traded on an exchange, not over the counter.

Traditionally, investors had very few tools for managing their fixed income investments. Individual bonds were available, but they were often difficult to trade and thus were ill-suited for strategies that

required liquidity. There were a number of different types of derivatives in the market, but they had their own set of problems. Futures contracts were only available for US Treasury securities, and not for corporates, mortgage-backed securities or other fixed income sectors. There were swaps contracts that covered these markets, but they created a new set of challenges with counterparty risk and cost transparency. This was the niche that fixed income ETFs came to occupy, providing for the first time a liquid vehicle for trading a wide variety of fixed income markets.

And with this growth in application came an expansion of the investor base. Early adopters of fixed income ETFs were largely buy-and-hold retail investors and advisors—those investors who were comparing ETFs to other managed vehicles. With the growth in market liquidity traditional fixed income investors such as asset managers, pension funds and endowments began increasing their usage of fixed income ETFs as well. Even for these sophisticated institutions, which often had their own bond traders and expertise, the ETF often provided a more efficient way to implement fixed income strategies. It can sometimes take weeks for the largest investors to build a fixed income portfolio. The exchange provides these investors with a completely different market in which to transact and access liquidity.

Even for the high yield market, one of the most opaque segments of the bond market, the iShares iBoxx \$ High Yield Corporate Bond Fund (HYG) has become a preferred exposure vehicle, with trading volumes reaching as high as \$940 million in a single day at the end of May 2012, according to Bloomberg data. With this kind of democratization of the market, *all types of investors* are able to trade fixed income exposure on the exchange—a single location—for the first time.

Take as another example AGG. AGG tracks the Barclays Aggregate Index, the most commonly followed fixed income benchmark. Before the introduction of AGG there was no easily accessible way for most investors to buy and sell the broad market that it covers. While mutual funds may have been available, an investor who wanted to put cash to work in the market or perform asset allocation had no vehicle available to access exchange liquidity and transparency within the broad fixed income market in one trade. It would be equivalent to there not being any S+P 500 ETFs or futures. That was the situation prior to AGG's introduction. And this challenge extended to most segments of the fixed income market: there simply wasn't a widely available vehicle for efficiently trading market exposure.

During this time product innovation continued. In addition to the launch of 28 new fixed income funds, iShares also launched the industry's first set of ETFs with a pre-defined liquidation date. This innovative product line is called the "Muni Series" and was designed to offer investors a combination of the benefits they enjoy from both funds and individual bonds. Like a fund, each muni series fund contains a diversified set of municipal securities and is managed by a portfolio manager. Like a bond, each muni series fund has a pre-determined date when the fund will close down and distribute all proceeds out to shareholders. Investors in a series fund receive monthly distributions of earned income followed by a single lump sum payment at liquidation. For investors who enjoy the known investment time horizon provided by bonds, the series funds provide a way for them to receive that, along with the diversification and professional management of an iShares fund. These features have made the series funds a popular tool for building bond portfolios.

## Stage 4

### Fueling the Next Chapter of Growth in the ETF Industry

So where does the fixed income ETF industry go from here? Critics point to the low level of interest rates and speculate that if rates rise then investors will start selling fixed income, including ETFs. That is of course possible, but while fixed income assets may decrease temporarily, we think the fixed income ETF market should continue to grow because of three significant structural shifts in the markets:

- 1. Changing demographics in the US and abroad are going to result in more and more investors seeking income-producing investments.** We believe fixed income is likely to continue to grow as a percentage of the average investor's portfolio regardless of where interest rates go, and as ETFs provide an efficient way to access fixed income, they should be a significant beneficiary.
- 2. Global bond markets continue to evolve, increasing the investment opportunity set for investors.** Vehicles like ETFs that allow investors to access challenging markets may be the beneficiary of the broadening and diversification of bond portfolios.

- 3. ETFs are still being discovered by many investors.** Despite all the growth of the last ten years, the ETF market is still tiny compared to the individual bond and mutual fund markets. Fixed income ETFs are only about 5% of the size of fixed income mutual funds. Even if the amount of assets in fixed income portfolios remained flat, ETFs assets still have room to grow as more and more investors may discover them and shift away from traditional mutual funds and individual bonds.

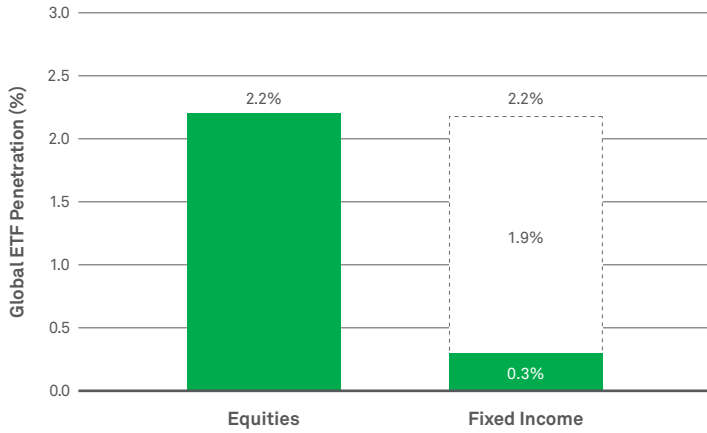
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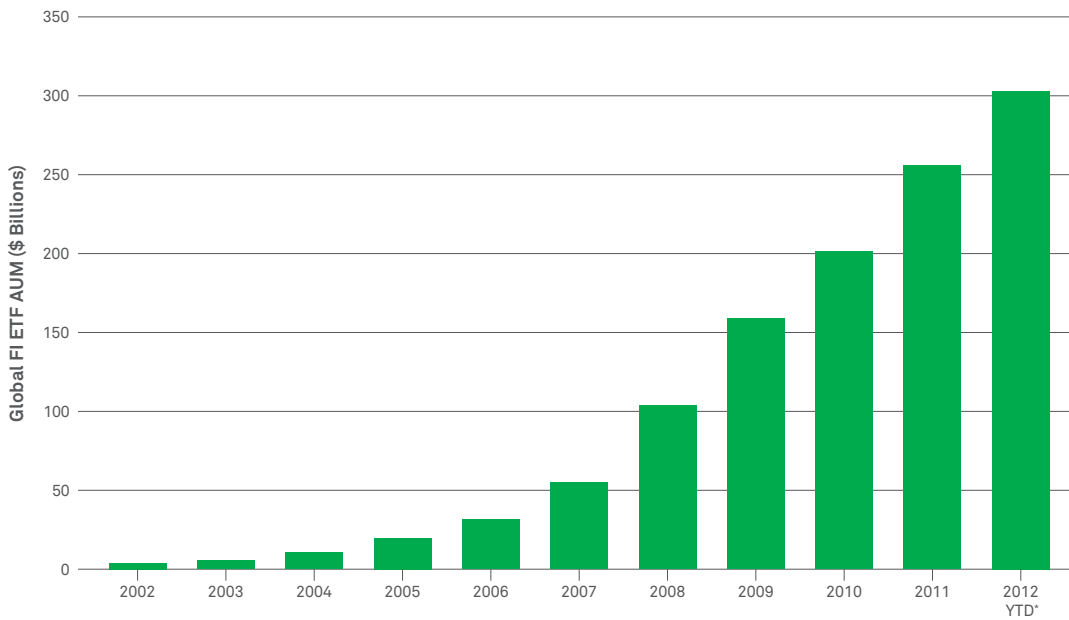
This last point is especially true with fixed income professionals who have historically used individual bonds, and who have only recently begun to embrace the benefits of fixed income ETFs. The liquidity and flexibility offered by fixed income ETFs allow these investors to more efficiently manage their bond portfolios. How? Portfolio managers are able to more efficiently manage cash and rebalance portfolios. Multi-asset class investors are able to more nimbly execute asset allocation. Banks and insurance companies are able to more effectively manage their balance sheets. Many of these institutional fixed income investors have simply been unaware of the ETF product, as their investment world has historically been almost entirely over the counter. As these investors come to fully appreciate and utilize fixed income ETFs as a fixed income capital markets instrument, we expect that they will drive a significant surge in usage, trading volumes and asset growth.

Figure 1: Global ETF Penetration of Global Underlying Market Value



Source: Bloomberg as of 12/11.

Figure 2: Global FI ETF AUM



\* As of 6/30/12.  
Source: Bloomberg.

Along with the potential for growth, new fixed income ETFs may be launched to meet the increasingly sophisticated needs of investors. There are three major themes that are likely to drive new product development:

**1. New slices of US fixed income markets.** As investors have come to embrace fixed income ETFs, they have moved to more portfolio customization, either to create custom strategic fixed income portfolios or to tactically move between fixed income sectors. As a result of this appetite, the recent launch of iShares have focused on different corporate sectors—the iShares Industrials Sector Bond Fund (ENGN) for industrial corporate bonds, the iShares Financials Sector Bond Fund (MONY) for financial corporate bonds, the iShares Utilities Sector Bond Fund (AMPS) for utility bonds—and on specific credit quality ranges—the iShares Aaa-A Rated Corporate Bond Fund (QLTA) for A or better rated corporate bonds, the iShares Baa-Ba Rated Corporate Bond Fund (QLTB) for BB-BBB rated corporate bonds, the iShares B-Ca Rated Corporate Bond Fund (QLTC) for bonds rated B-Ca. We expect additional targeted iShares ETFs to come out in the future to continue to meet this demand.

**2. Non-US fixed income markets.** Just as investors are increasingly looking to build more global fixed income portfolios, we have seen more iShares ETFs introduced to meet this need. As investors search for yield in today's challenging environment they are increasingly looking outside the US market. The introduction of funds such as the iShares Emerging Markets Corporate Bond Fund (CEMB) for corporate emerging market bonds and iShares Global ex USD High Yield Corporate Bond Fund (HYXU) for international high yield bonds allow investors to think of portfolio construction and asset allocation across an even larger investment universe. As investor global bond awareness and sophistication grows, the number of products that help investors implement their views can be expected to keep pace.

**3. Packaged solutions.** To date, iShares has provided investors in the US with 50 fixed income iShares ETFs for building investment solutions. Some investors are now looking to iShares for guidance on how to put the pieces together. To support this need, iShares is now publishing model portfolios, comprised of iShares funds and each designed to help meet a specific investment goal such as attaining a target yield, or protecting against a market event such as higher inflation. iShares ETFs have also been introduced that wrap investment solutions into a single fund. The iShares Morningstar Multi-Asset Income Index Fund (IYLD), for example, seeks to provide investors with a portfolio of iShares funds across markets that are optimized to deliver yield in a risk conscious way. Such packaged solutions should continue to grow as investors search for new and different ways to meet their income needs.

The long-term trends driving growth, and the launch of new products all, of course, raise the question: just how big could the fixed income ETF market get? One way to answer this question is to look at the level of ETF adoption in the equity market. Equity ETFs were introduced in the United States in 1993 and their growth may provide some clues about the potential for the fixed income ETF market. As of May 2012, equity ETFs had grown to be 11% of the mutual fund market according to Bloomberg data. In contrast, fixed income ETFs are currently only 5% of the mutual fund market. A doubling of fixed income ETF assets over the next few years seems reasonable if it follows the same growth path.

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However, further analysis shows even greater potential. Fixed income ETFs are more than just funds, they are also used as an alternate source of fixed income exposure that goes hand-in-hand with funds and individual bonds. Looking at the equity market we see that as of end of last year, Equity ETFs represented 2.2% of global equity assets, according to Bloomberg data. Fixed income ETFs represented only 0.3% of global fixed income assets. This analysis highlights the tremendous growth opportunity in front of the ETF market. If the US fixed income ETF market were to reach the same level of penetration reached by equities we could see US fixed income ETF assets grow from \$222 billion to over \$1.4 trillion dollars. With that context, we believe the global fixed income ETF market could grow to more than \$2 trillion over the next decade.

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