



# What Loan Investors Need to Know About LIBOR Floors

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## Introduction

So the Fed finally started lifting rates...why isn't my floating-rate loan fund floating?

Loan fund investors may ask this question once the Federal Reserve takes its long-awaited first steps to normalize short-term interest rates. This is because of the preponderance of so-called "LIBOR floors" within the approximately \$835 billion U.S. senior loan market. While we don't know exactly when or at what pace the Fed will raise the fed funds target rate, recent statements from the central bank suggest that liftoff will occur in the relatively near future. With the reality of "when and by how much" — as opposed to "if" — more firmly in play, investors are well advised to contemplate in advance how loan fund income and yields will react to rising rates.

But before we get too far ahead of ourselves, it's important to understand the issue and how it's expected to play out. In doing so, we must first fully appreciate what a LIBOR floor is and how it has, at least for the time being, modified the floating-rate mechanism unique to senior loans. We also need to be reminded of how loans have behaved in past rising-rate environments in order to appreciate how the immediate outcome of rate hikes is likely to be a little different this time around. And ultimately, we need to decide if loans remain a compelling investment for yield-oriented investors looking to minimize traditional duration risk in their portfolios.

## So What Is a LIBOR Floor?

Loans typically pay a two-part coupon — a market-driven base rate (30- to 60-day LIBOR in most cases) plus a contractual credit spread (which serves as a risk premium). When short-term market interest rates go up, the LIBOR component of the coupon also rises. This lifts the overall interest rate paid by the borrower as well as the income earned by a portfolio invested in senior loans. Conversely, when short-term market interest rates decline, the income from senior loans will duly follow. The period of time between an increase in market rates and the resulting rise in the interest rate on a senior loan is referred to as the interest rate "reset period." The reset period will vary from loan to loan, but a large, diversified portfolio of senior loans can be expected to have a weighted average reset period of 60 days or less. As a result, the income earned from a senior loan portfolio is generally very responsive to changes in short-term interest rates.

However, in the aftermath of the global financial crisis, when interest rates were brought very close to zero to stimulate U.S. economic growth, most loans have been issued with what's referred to as a LIBOR floor; i.e., a minimum level ("floor") on the base rate component of the overall coupon. As of July 31, 2015, approximately 92% of the loans in the S&P/LSTA Leveraged Loan Index have a LIBOR floor, with the weighted average of the floor being approximately 1%. With 60-day LIBOR as of July 31 hovering around 25 basis points (bps), this creates a 75 bp gap between spot (or actual) LIBOR and the LIBOR floor. This gap amounts to a "subsidy" in the yield on the loan, which will remain in effect until LIBOR rises above (approximately) 1%. But it also means that when rates begin to move higher, the income from such loans will not grow until LIBOR climbs the 75 bps or so and breaches the applicable floor. From then on, the coupon of the loan will once again float based on the effective reset period.

## Life in the Senior Loan Market Before LIBOR Floors

Before we look to the future, let's examine the past, if only for a point of reference.

It's important to note that changes in interest rates historically have not directly impacted the price of a senior loan. The opposite is true for fixed-rate bonds. Most investors are quite aware that when interest rates rise the price of a bond typically declines, and when rates fall the value of that same bond can increase. Regardless of any changes in market rates of interest, the amount of interest paid by a fixed-rate bond never fluctuates. As a floating-rate instrument, senior loans are different. While the amount of interest paid on a senior loan typically rises and falls with moves in short-term interest rates, the change in rates alone has rarely had a direct and immediate impact on the price of that loan since the income earned is effectively being reset to the prevailing market rate.

So absent other factors such as changes in the current or prospective creditworthiness of the particular borrower, the market value of a senior loan is generally unaffected to any significant degree by changes in market interest rates. Of course, there can be some price fluctuation because of the lag between a change in short-term rates and the weighted average reset period of a portfolio of senior loans, but because these periods are generally short, such price fluctuations have been relatively modest.

Because of the basic floating-rate mechanism we have described, loans have typically performed better than fixed-rate bonds during the most notable periods of rising rates (see Figure 1 below). The demand for floating-rate paper generally blossoms in a rising-rate environment and a lack of meaningful duration has historically helped the asset class to withstand any significant price loss relative to bonds.

**Figure 1. Loans Have Outperformed Fixed-Rate Bonds in Rising-Rate Environments**

### Asset Class Returns in Percent

Start Date	End Date	Aggregate Bonds	High Yield Bonds	Short-Term Bonds	Large-Cap Equity	Senior Loans	REITs
Apr-87	Feb-89	5.01	6.35	6.01	3.00	N/A	0.98
Feb-94	Feb-95	0.01	1.43	2.48	4.10	9.54	-1.51
Jun-99	May-00	2.11	-3.21	4.02	10.48	3.93	0.82
Jun-04	Jun-06	3.09	8.20	2.01	8.16	5.88	28.48
	<b>Average</b>	<b>2.55</b>	<b>3.19</b>	<b>3.63</b>	<b>6.43</b>	<b>6.45</b>	<b>7.19</b>

Source: Barclays Capital, FactSet, Voya Investment Management

**Note:** Asset class performance is represented by the following indexes: Barclays U.S. Aggregate Bond Index, Barclays U.S. Corporate High Yield Index, Barclays U.S. Government/ Credit 1-3 Year Bond Index, Credit Suisse Leveraged Loan Index, Standard & Poor's 500 Stock Index.

**Past performance is no guarantee of future results.** Performance shown is historical and not indicative of any specific product and does not account for fees and expenses associated with investing in funds. **An investor cannot invest directly in an index.**

## Theory vs. History

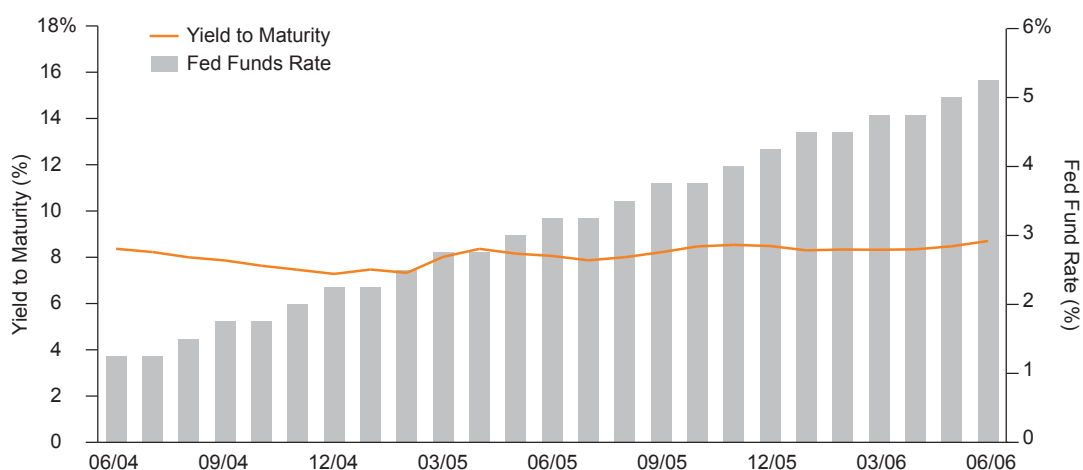
While it may be tempting to rely on the past as a barometer for the future, doing so this time could result in at least some disappointment. We'd rather no one be caught off guard should an asset class that historically has seen its coupon increase promptly in reaction to rising rates suddenly not do just that. So if loan coupons won't immediately begin to float upward with the Fed's first few rate hikes, what could happen to the market price of loans and, ultimately, the yield when the tightening cycle begins?

Because coupons will not immediately reset higher on loans with LIBOR floors, it follows, theoretically, that these loans would no longer display non-zero duration because they would behave, to a degree, like fixed-rate instruments, at least in the short term. The duration calculation would essentially go from a 60-day average (i.e., the reset period) to whatever length of time it will take for short-term rates to exceed, on average, 1%. By transforming the loan from an interest rate-insensitive product to one that will display some bond-like properties, the duration of the LIBOR floor could translate to a modest price decline for the loan and thus an increase in yield.

Beyond theory, however, we also know that high yield bonds have historically been able to absorb slow, well-telegraphed rate increases with relatively little change in yields (see Figure 2). Should the Fed plod along, we could envision a scenario in which loans behave more like their high yield bond counterparts and the yields of loans, subsequently, would remain relatively flat. The difference of course is that loans will, in all probability, resume their floating-rate behavior (i.e., increasing coupons and more stable prices) at the point when the LIBOR floor is breached, an important investment consideration as the rate cycle marches on.

**Figure 2. High Yield Bond Yields Remained Steady in a Gradual, Well-Telegraphed Rising-Rate Environment**

Barclays U.S. Corporate High Yield Index, June 2004 through June 2006



Source: Barclays, Voya Investment Management

## The X Factor: Market Technicals

Theory has its place, but reality is often quite different. We can't fully handicap the outcome here because 1) there hasn't been a sustained period of rising rates since the introduction of LIBOR floors to the loan universe, and 2) market technicals (i.e., supply/demand-related investment flows) have often proven to be powerful catalysts for upending well-calculated theories.

If investors view the LIBOR floor complication as temporary and continue to see favorable relative value in loans, we could see a supply/demand ratio skewed toward the latter. In this case, loan prices could potentially move higher, effectively lowering the yield (at least until the coupon starts to float). Additionally, a material jump in demand may result in credit-spread compression on new issues and thus increase the probability of an uptick in "re-pricing" activity (i.e., a voluntary resetting lower of the borrower's credit spread) on existing loans. In this scenario, weighted average credit spreads for the asset class could begin to narrow while prices are increasing, resulting in lower yields. The silver lining in this scenario is that healthy demand would effectively eliminate any worry of duration risk for the asset class (assuming all things remain equal) by mitigating downside price risk. And once the LIBOR floor is exceeded, yields would again resume their upward trend in line with that of the short end of the rate curve.

## So What Does This Mean?

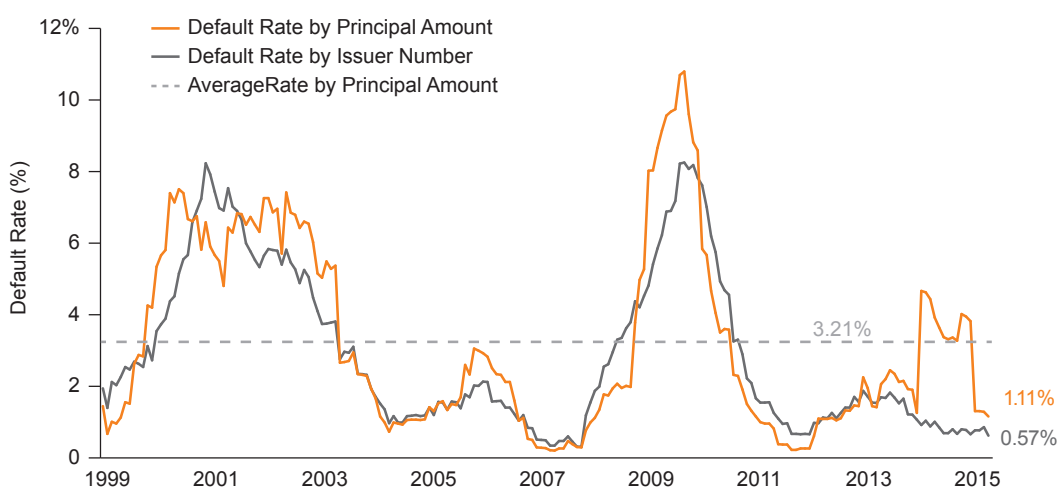
Well, the short answer is that while we can't say for sure how yields will behave, we can expect any atypical behavior, if it occurs, will be temporary. Loans still have an underlying market-driven base rate component that will float once the floor is breached. There is, therefore, a finite timeline for any "fixed-rate" behavior. In short, we just have to wait it out, but that shouldn't be seen as an argument for waiting to invest in loans.

On the contrary, we think senior loans have been — and continue to be — an attractive investment even in today's zero-rate environment. A notable reason for that is in part because of the LIBOR floor structure. After all, the floor is a prime reason current yields are attractive on a stand-alone basis and as compared to many high-yielding alternatives.

Further, default rates are currently well below historical averages (the trailing default within the S&P/LSTA Leveraged Loan Index was 1.11% as of July 31), and the outlook remains fairly benign. Should that change, loans enjoy the unique advantage of being secured by the collateral of the borrower, which has led to better ultimate recovery rates than that for high yield bonds over the long term. See Figures 3 and 4 for illustrations.

**Figure 3. Senior Loan Default Rates Remain Well Below Historical Averages**

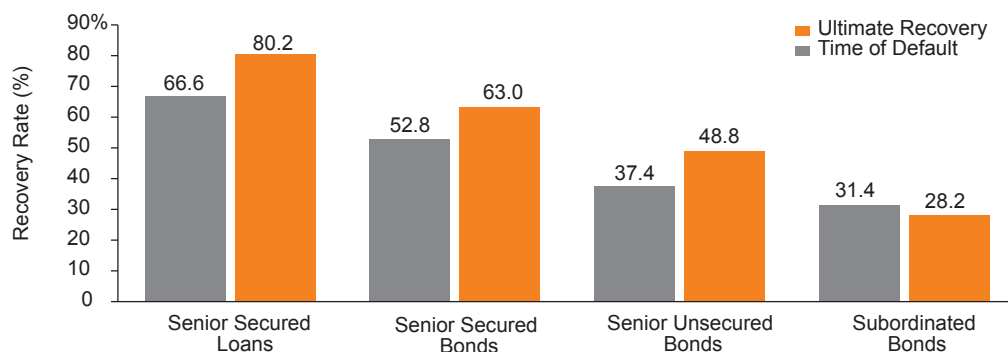
Lagging-12-Month Default Rate, S&P/LSTA U.S. Leveraged Loan Index, December 31, 1998 – July 31, 2015



Source: Standard and Poor's LCD, S&P/LSTA Leveraged Loan Index

**Figure 4. Ultimate Average Recovery Rates for Senior Loans Have Been Very Favorable**

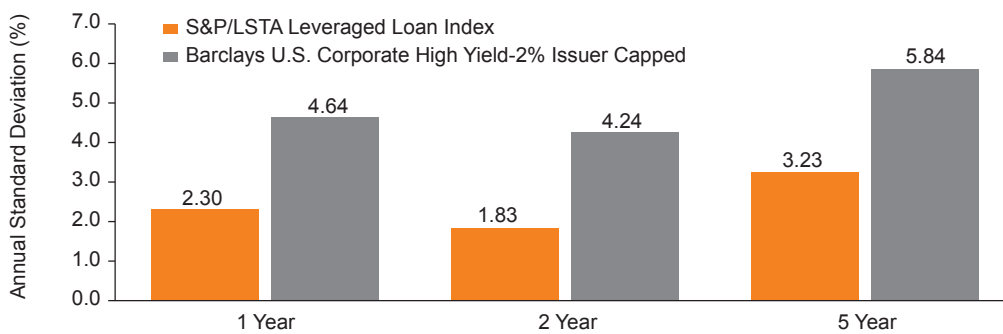
Average Corporate Debt Recovery Rates, 1987 – 2014 (Data as of December 31, 2014)



Source: Moody's Investors Service

It also bears mentioning that both historically and in this recent period of heightened volatility, loans have experienced less downside movement relative to other riskier asset classes. This is also attributable to the inherent protections provided by their senior position in the borrower’s capital structure and higher recoveries as noted above. Although not immune to negative investor sentiment at times brought on by global volatility, loans exhibit a lower standard deviation than high yield bonds, both in recent history and over three- and five-year time horizons (see Figure 5).

**Figure 5. Senior Loans Have Exhibited Lower Volatility Than High Yield Bonds**  
Annualized Standard Deviation, as of July 31, 2015



Source: Voya Investment Management, S&P/LSTA Leveraged Loan Index, Barclays U.S. Corporate High Yield – 2% Issuer Capped Index

We believe that these characteristics make senior loans an attractive investment in today’s environment and offer favorable prospects for generating yield income now and with further upside potential once actual short-term LIBOR exceeds the average LIBOR floor within a given portfolio. While a slight tweak to the ultra-short duration profile of the asset class brought on by LIBOR floors may be a temporary concern for senior loans, we believe the senior and secured position of the asset class will continue to set it apart as a low volatility portfolio diversifier for yield-oriented investors with a mid-term to longer term investment profile.

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All investments in bonds are subject to market risks. Bonds have fixed principal and return if held to maturity, but may fluctuate in the interim. Generally, when interest rates rise, bond prices fall. Bonds with longer maturities tend to be more sensitive to changes in interest rates.

All investing involves risks of fluctuating prices and the uncertainties of rates of return and yield inherent in investing. **High Yield Securities**, or "junk bonds", are rated lower than investment-grade bonds because there is a greater possibility that the issuer may be unable to make interest and principal payments on those securities. As **Interest Rates** rise, bond prices may fall, reducing the value of the share price. Debt Securities with longer durations tend to be more sensitive to interest rate changes. High-yield bonds may be subject to more **Liquidity Risk** than, for example, investment-grade bonds. This may mean that investors seeking to sell their bonds will not receive a price that reflects the true value of the bonds (based on the bond's interest rate and creditworthiness of the company). High Yield Bonds are also subject to **Economic Risk** which describes the vulnerability of a bond to changes in the economy.

Diversification does not guarantee a profit or ensure against loss. **Past performance is no guarantee of future results.**

Below investment grade loans involve a greater risk that borrowers may not make timely payment of interest and principal on their loans. They also involve a greater risk that the value of such loans could decline significantly. If borrowers do not make timely payments of the interest due on their loans, the yield on a portfolio invested will decrease. If borrowers do not make timely payment of the principal due on their loans, or if the value of such loans decreases, the value of a portfolio invested will decrease. Demand for loans: An increase in demand for loans may adversely affect the rate of interest payable on new loans acquired by a portfolio invested, and it may also increase the price of loans in the secondary market. A decrease in the demand for loans may adversely affect the price of loans in a portfolio invested, which could cause such portfolio's value to decline.

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