

HEDGING INTEREST-RATE RISK WITH FLOATING-RATE LOANS

Highlights

- An inflection point for bond investors
- Benefits and risks of floating-rate loans
- A history lesson in the asset class

The years ahead may be challenging for fixed-income investors, with interest rate hikes and stimulative fiscal policy leading down a path to price declines. In this new economic environment, prudent investors may wish to consider an alternative, or complement, to their traditional bond portfolios: floating-rate loans.

The shifting paradigm

For almost 40 years, fixed-income investors have enjoyed a bull market in bonds — decades of declining interest rates coupled with moderate to low inflation created an extraordinary environment for the asset class. During this period progressively lower rates made income hard to come by, but bond prices themselves rose steadily as yield-starved investors continued to pour money into fixed-income securities — even as their yields fell to historic lows.

More recently, however, that story has begun to unwind. With interest rate hikes already under its belt and more economic growth projected, the U.S. Federal Reserve is expected to continue to raise interest rates in the years ahead. Add to that tax cuts and low unemployment — both of which typically feed through to higher prices for consumers and ultimately to higher interest rates — and it's fair to say that the paradigm of perpetually falling yields is shifting.

An inflection point for bond investors

For bond investors, a rising interest rate environment can be tricky to navigate, as rate increases drive down the prices of traditional fixed-income securities. Interest rates are directly influenced by Fed policy, of course, but they are also affected by inflation — making bond investors leery of rising inflation as well. To see this, one has only to look to the fourth quarter of 2016, when improving economic data, higher inflation expectations and a Republican sweep in Washington hit the bond market broadside. The Bloomberg Barclays U.S. Aggregate Bond Index posted its worst quarterly return since 1981 during this time, losing 3% in just three months. Given traditional bonds' sensitivity to rising interest rates, and the anticipated rate hikes, many bond investors are now considering an allocation to floating-rate loans.

Introduction to floating-rate loans

What are floating-rate loans?

As their name implies, floating-rate loans are debt instruments. Floating-rate loans are known by many names, including bank loans, senior loans and leveraged loans. They are a form of debt financing typically negotiated between a group of banks, known as a syndicate, and a corporate entity.

These loans are typically extended to companies with higher levels of debt relative to their cash flows and, consequently, carry greater credit risk than investment-grade bonds. While floating-rate loans are below investment-grade quality, they are senior in the capital structure and secured by the borrower's assets, meaning they have higher recovery rates in the event of default.

Unlike traditional bonds, floating-rate loans do not make a fixed interest payment, or coupon, each period. Instead, floating-rate loan coupons can vary based on prevailing interest rates. The coupon consists of two components: a fixed spread and a floating reference rate. The spread remains static over the life of the loan and is based on the borrower's credit quality as well as market factors such as risk appetite, liquidity and the default environment. However, the reference rate – often the London Interbank Offered Rate (LIBOR) – resets every 30, 60 or 90 days, floating up or down with changes in prevailing market rates. This reset feature makes floating rate loans responsive to changes in short-term interest rates, although the rate on the loan does not reset immediately. This floating feature also makes loan *prices* less sensitive to changes in interest rates.

Benefits of floating-rate loans

Interest rate and inflation hedge

Floating-rate loans offer several benefits that make them an attractive investment option. In today's environment, the most relevant of these include protection from interest rate and inflation increases. In a rising rate environment, floating-rate loan prices typically hold their value better than fixed-income bonds, mainly because the rate effect is reflected in the floating-rate loans' coupon payments. They also

Since 1994, the 10-year Treasury rate has increased more than 100 bps on several occasions. Floating-rate loans provided consistently solid total returns during those periods.

hold their value better in the face of inflation, which exerts additional upward pressure on interest rates. As an asset class, floating-rate loans have had a long track record of generating consistently positive total returns in periods of rising rates (Exhibit 1).

Exhibit 1: Leveraged loan performance in a rising rate environment^{1,2}

In periods when the 10-year Treasury rose at least 100 basis points (bps)

12 months ending	Change	Total return (%)		
	10-year U.S. Treasury yield	Floating-rate loans	U.S. Aggregate bonds	U.S. Treasury bonds
October 1994	+238	13.35	-3.68	-4.45
January 2000	+201	5.43	-1.85	-2.84
May 2004	+130	8.30	-0.44	-2.63
June 2006	+120	6.66	-0.81	-1.68
December 2009	+159	44.87	-5.93	-3.57
December 2013	+126	6.15	-2.02	-2.75
July 2017	+104	6.83	-0.52	-2.55

Total returns during Fed tightening cycles (%)

Dates	Fed funds rate	Floating-rate loans	U.S. Aggregate bonds	U.S. Treasury bonds
January 1994–February 1995	3–6	10.38	1.16	0.43
May 1999–May 2000	4.75–6.50	4.85	1.12	2.20
May 2004–June 2006	1–5.25	5.76	2.78	2.42
December 2015–December 2017	0–1.5	6.25	2.81	1.53

Source: Bloomberg Barclays and Credit Suisse as of 12/31/17.

Past performance is not a guarantee of future results.

Compelling income generation

Floating-rate loans are lower credit quality than investment-grade bonds and consequently must pay higher coupons to attract investors. In addition, yields on floating-rate loans keep pace with changing markets due to their regularly resetting coupon feature. When interest rates rise, floating-rate loan coupons increase as the market index ticks up, while fixed-income bond coupons remain the same. LIBOR traditionally has had a high correlation to Fed action, making the resetting feature particularly compelling when the Fed is raising interest rates.

Attractive yield/duration trade-off

When interest rates rise, principal stability becomes a heightened concern for traditional bond investors. Shortening portfolio duration can make a fixed-income portfolio less sensitive to interest rate changes — and consequently

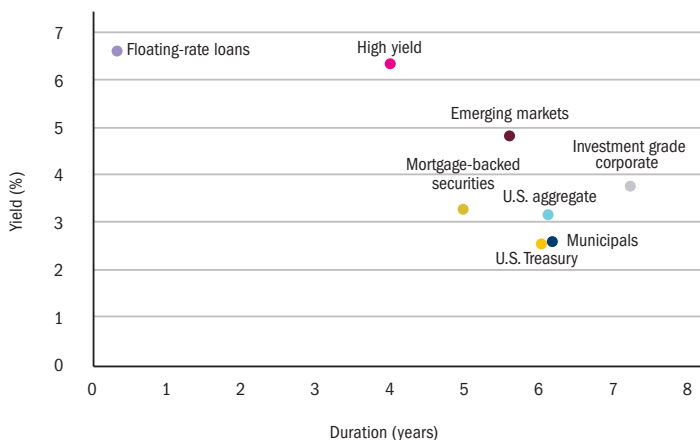
¹ A basis point is 1/100th of a percent.

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reduce the risk of price declines — but, in most cases, a shorter duration also results in a lower yield. Floating-rate loans are an exception to this rule.

Regularly resetting coupons give floating-rate loans an extremely short duration — generally no longer than the time between reset dates. Yet despite the short duration of floating-rate loans, their yields tend to be relatively high to remain commensurate with their credit risk (Exhibit 2).

Exhibit 2: Yield versus interest rate risk across the fixed-income landscape²



Source: Bloomberg Barclays and Credit Suisse as of 12/31/17.

Seniority in capital structure

Floating-rate loans are typically the most senior source of capital in a company's capital structure, meaning that loan investors have the highest claim to a company's assets in the event of bankruptcy or liquidation (Exhibit 3). Additionally, floating-rate loans are secured by the borrower's assets, which can be converted into cash to repay loan investors. While floating-rate loans are still exposed to the greater credit risk that accompanies below-investment-grade rated debt, as an asset class, they have had a much higher recovery rate in default situations compared with other types of high-yield securities.²

Exhibit 3: Corporate capital structure

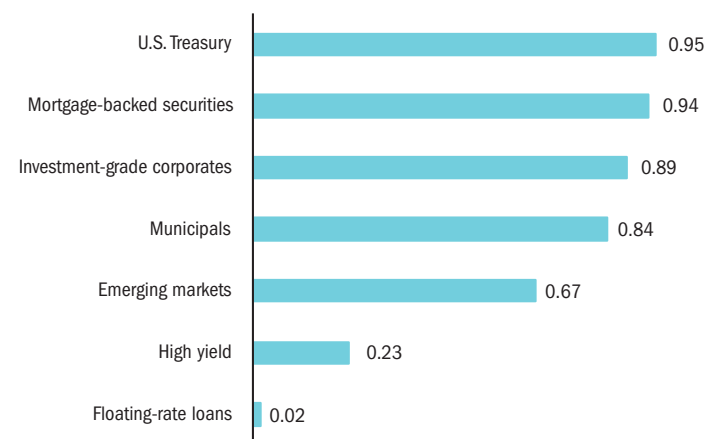


² Asset classes identified with the following indices: Floating-rate loans (Credit Suisse Leveraged Loan Index), High yield (Bloomberg Barclays U.S. High Yield Corporate Index), Emerging markets (Bloomberg Barclays Emerging Market USD Aggregate Index), Mortgage-backed securities (Bloomberg Barclays MBS Index), U.S. aggregate (Bloomberg Barclays U.S. Aggregate Bond Index), Investment-grade corporate (Bloomberg Barclays U.S. Corporate Index), Municipals (Bloomberg Barclays Municipals Index), U.S. Treasury (Bloomberg Barclays U.S. Treasury Index).

Portfolio diversification

Floating-rate loans have displayed historically low correlations with traditional asset classes, which can help to reduce overall volatility in an investor's portfolio. While there are exceptions — floating-rate loans have shown a higher correlation with high-yield bonds, since they both represent debt of lower quality companies — floating-rate loans have had a negative correlation with traditional investment-grade bonds, such as Treasuries. This is because they are sensitive to different risks; floating-rate loans are more sensitive to credit risk, while investment-grade bonds are more sensitive to interest rate risk. This results in a low correlation of floating-rate loans to the aggregate bond index (Exhibit 4). This characteristic also makes floating-rate loans an attractive investment alternative for investors concerned about the prospects for government bonds.

Exhibit 4: Correlation to Bloomberg Barclays U.S. Aggregate Bond Index²



Source: Morningstar as of 12/31/17. Diversification does not assure a profit or protect against loss.

Risks with floating-rate loans

Greater credit risk

Despite carrying less credit risk than some fixed-rate, high-yield bonds, floating-rate loans carry greater credit risk than investment-grade bonds. Floating-rate loans serve as a major source of financing for companies looking to refinance existing debt, recapitalize their balance sheets or finance leveraged buyouts. Since these companies tend to have lower credit quality, their loans carry greater potential for default or loss. The risk profile of floating-rate loans is, in fact, more akin to risk assets such as traditional high-yield bonds and equities than it is to high-quality bonds.

Vulnerability to changes in risk appetite

While changes in interest rates exert a minimal effect on the price of floating-rate loans, their value tends to fluctuate with the market's appetite for risk. This characteristic was particularly pronounced in 2008, when rising defaults, lower corporate earnings and the subprime credit crisis contagion resulted in a flood of large-scale sales of riskier assets. As copious supply met with weak demand, floating-rate loans posted their worst one-year performance in history (Exhibit 5). By 2009, demand resumed and prices rebounded; however, investors should be aware that floating-rate loans have the potential to generate steep losses under extreme market conditions.

Exhibit 5: 2008 was worst one-year performance in history of floating-rate loans



Source: Credit Suisse as of 12/31/17.

Liquidity risk

Settlement times for floating-rate loans tend to be longer than for other asset classes, subjecting them to heightened liquidity risk. Unlike traditional bonds that trade over-the-counter and settle in about three days, floating-rate loans trade as private transactions. Mutual funds, exchange-traded funds (ETFs), collateralized loan obligations (CLOs) and other institutional buyers and sellers negotiate directly with each other to establish the price at which each loan will trade as well as the length of time it will take to close the transaction.

During periods of heightened market volatility, settlement periods may stretch as long as 14–20 days. This creates specific challenges for loan funds that must be able to sell their holdings and receive cash proceeds quickly to meet investor redemptions. This risk is exacerbated when redemption activity is high. To deal with a potential mismatch of cash flows, a portfolio manager may establish a line of credit to meet redemptions in extreme cases, such as in

2008 when hedge funds, CLOs and other institutional investors were forced to sell large quantities of loans and a lack of willing buyers caused prices to plummet.

Limited price appreciation

While floating-rate loans are susceptible to price depreciation brought on by a liquidity crunch or a credit event, loans trading at par tend not to experience further price appreciation. This is because most of the floating-rate loan market is continually callable, meaning that issuers can repay their loans at any time prior to maturity and refinance them at lower interest rates. When credit conditions improve, issuers can also reprice their loans, renegotiating the spread component of the coupon to reduce interest cost. A loan originally issued with a coupon of LIBOR +400 bps, for example, could be repriced to LIBOR +350 bps, reducing the income paid to investors. Such flexibility to repay or reprice debt benefits issuers of floating-rate loans, of course, but it effectively caps the potential upside of the securities themselves. As a result, returns for the asset class have historically consisted solely of coupon income, with a negligible effect from price appreciation outside of periods of distress.

Conclusion

Floating-rate loans may be an attractive asset class for many investors. Floating-rate loans can act as a hedge against rising interest rates and higher inflation while offering overall portfolio diversification and greater income relative to many other types of bonds. In addition, their extremely short duration and senior position in the capital structure make floating-rate loans an attractive alternative to fixed-rate, high-yield bonds.

Like any asset class, however, floating-rate loans have drawbacks as well as benefits. Most notably, they carry greater credit risk than high-quality bonds and may decline in value if the market loses its appetite for risk securities. They also have limited price appreciation potential and higher liquidity risk due to their longer settlement times. Despite these risks, floating-rate loans have exhibited relative stability over the long term, outside of the great financial crisis. Floating-rate loans have also performed well in rising-rate environments and have exhibited low correlations with most other fixed-income sectors. For these reasons, we view floating-rate loans as worthy contenders in an overall asset allocation strategy.

Floating-rate loans: a history lesson in performance and demand

The floating-rate loan market has grown significantly since the mid-1980s, but it hasn't advanced in a straight line. Early on, collateralized loan obligations (CLOs) and hedge funds drove demand, accounting for approximately 60% of the buyer base.³ By the early 2000s, large banks were writing hundreds of billions of dollars of floating-rate loans to support waves of leveraged buyouts and re-financings. While many investors used leverage to purchase loans, hedge funds bulked up on the securities, using the equivalent of up to 95% margin credit.

These heady, debt-fueled purchases came to a screeching halt in 2008. The market landscape darkened with concerns of rising defaults, lower corporate earnings and a freeze in bank lending, and the subprime credit crisis spread to all structured products, essentially shuttering the CLO market. Institutions sold their risky assets to avoid credit downgrades, while hedge funds dumped floating-rate loans to meet margin calls. New issuance exacerbated the problem. As plentiful supply met large-scale sales and weak demand, leveraged loan prices sank from an average bid of approximately \$95 at the end 2007 to approximately \$62 by the end of 2008. The asset class witnessed its worst one-year performance in history, with the Credit Suisse Leveraged Loan Index falling 28.75%. Over this period, the floating-rate loan asset class, which had historically displayed minimal volatility and a low correlation with other indices, performed in line with both equities and other high-yield, fixed-income investments.

Investors, however, quickly regained their appetite for risk. Floating-rate loan prices rebounded sharply in 2009, and the Credit Suisse Leveraged Loan Index climbed 44.88%. The index gained another 9.97% in 2010 as retail investors poured more than \$14 billion into floating-rate loan funds. New issuance recovered to meet demand, while renewed institutional interest and the re-emergence of the CLO market provided a tailwind to the sector. Appetite swelled again in 2013 when the Fed spooked the market with taper talk. A record \$60–\$70 billion flowed into the sector as investors sought cover in less-interest-rate-sensitive products such as floating rate loans.

Flows again reversed course soon after. Incoming economic data softened, the Fed moderated its tone regarding rate future hikes, and fear of rising rates subsided. But demand rebounded once again in the final quarter of 2016, with inflows hitting record levels in December. While demand for floating-rate loans has fluctuated with changing expectations for interest rates, investment returns have been positive for the asset class in each calendar year since the financial crisis, with the exception of 2015. Today, with most investors anticipating higher rates from the Fed and a potentially inflationary boost from the Republican-led fiscal agenda, we expect to see additional interest in floating-rate loans.

³ S&P Leveraged Commentary & Data, January 2009.

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Past performance is not a guarantee of future results.

* In U.S. dollars as of December 31, 2017. Source: Ameriprise Q4 Earnings Release. Contact us for more current data.

The **Bloomberg Barclays Emerging Market USD Aggregate Index** is an unmanaged index that tracks total returns for external-currency-denominated debt instruments of the emerging markets.

The **Bloomberg Barclays Municipal Index** is an unmanaged index considered representative of the tax-exempt bond market.

The **Bloomberg Barclays U.S. Aggregate Bond Index** is a market-value-weighted index that tracks the daily price, coupon, pay-downs and total return performance of fixed-rate, publicly placed, dollar-denominated and non-convertible investment-grade debt issues with at least \$250 million par amount outstanding and with at least one year to final maturity.

The **Bloomberg Barclays U.S. Corporate Index** measures the investment-grade, fixed-rate, taxable, corporate bond market.

The **Bloomberg Barclays U.S. High Yield Corporate Index** is a market-value-weighted index which covers the U.S. non-investment-grade fixed-rate debt market.

The **Bloomberg Barclays U.S. Mortgage-Backed Securities Index** measures the performance of investment-grade, fixed-rate, mortgage-backed pass-through securities.

The **Bloomberg Barclays U.S. Treasury Index** includes public obligations of the U.S. Treasury.

The **Credit Suisse Leveraged Loan Index** tracks the investable market of the U.S.-dollar-denominated leveraged loan market. It consists of issues rated "5B" or lower, meaning that the highest rated issues included in this index are Moody's/S&P ratings of Baa1/BB+ or Ba1/BBB+. All loans are funded term loans with a tenor of at least one year and are made by issuers domiciled in developed countries.

Indices shown are unmanaged and do not reflect the impact of fees. It is not possible to invest directly in an index.

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