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TIAA
GLOBAL ASSET MANAGEMENT

Not created equal:
Surveying investments in non-investment grade U.S. corporate debt

Institutional investors seeking yield and current income opportunities have increased their allocations to non-investment grade corporate bonds and loans over the last several years. It is not hard to make the case for investing in these assets with the 10-year Treasury hovering around 2% and with historically low rates across the yield curve. Non-investment grade U.S. corporate debt has historically produced yields in the 6-10% range or greater. And with default rates below their long-term averages, it is not surprising that investment capital has poured into non-investment grade assets, especially as worries over low interest rates continue to persist.

But while delivering much-needed yield with manageable levels of risk, non-investment grade corporate debt is far from a monolithic asset class. There are several categories that investors can choose from, and they are markedly different from each other—both in terms of market dynamics and the underlying risk/return profile of the investments. Furthermore, as the credit cycle has shifted into a period of higher volatility, rising defaults and potentially rising rates, now is a good time for investors to consider the differences among the sub-asset classes of non-investment grade debt and determine which strategies best match their long-term objectives.

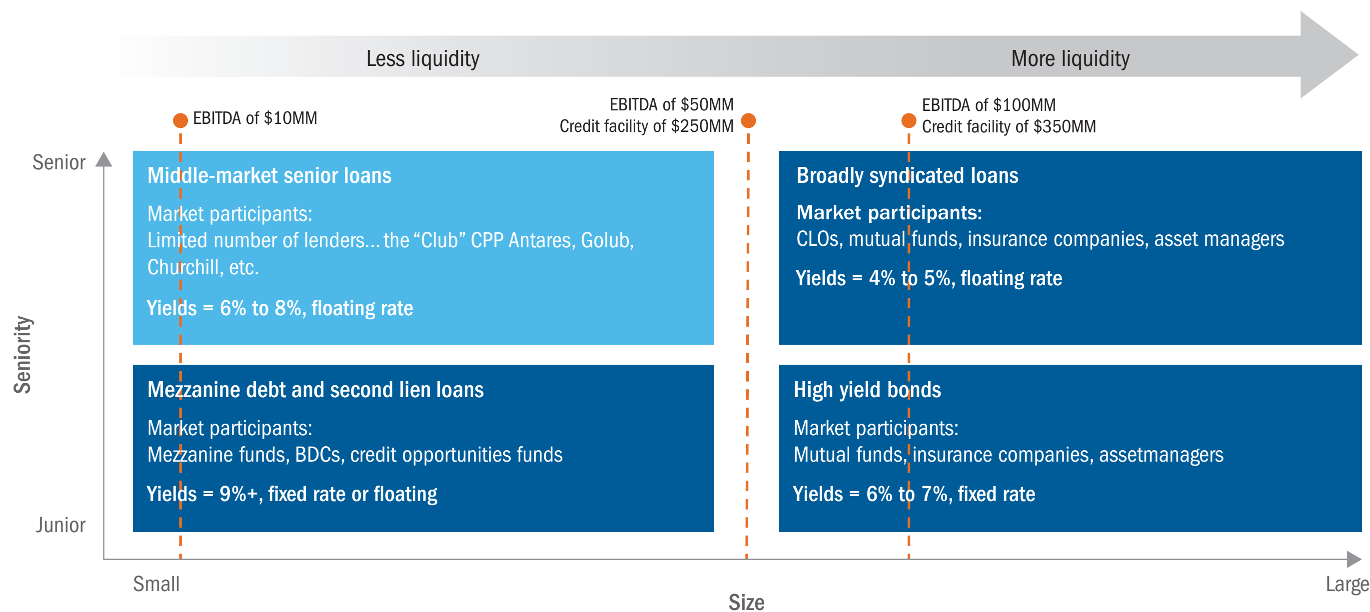
The many flavors of leveraged lending

We can illustrate the different risk/return attributes and the drivers of performance in each of the asset classes by putting the main asset classes of U.S. non-investment grade corporate debt market in four distinct “quadrants,” based on company size and seniority.

> The credit cycle has shifted into a period of higher volatility, rising defaults and potentially rising rates, which means now is a good time for investors to consider the differences among the asset classes of non-investment grade debt.

Broadly speaking, investors can choose from four categories, which can be segmented by company size (large cap or middle market) and debt position in a company’s capital structure (senior or junior). The categories in the quadrant also have clear differences in liquidity characteristics and market dynamics that drive returns and overall credit quality. Figure 1 below illustrates these four distinctive categories.

Figure 1: U.S. non-investment grade corporate debt market



Source: TIAA Global Asset Management & Churchill Asset Management

These categories represent the different asset classes available to investors within the non-investment corporate debt market in the U.S. On the horizontal axis in Figure 1, company size is depicted as cash flow or earnings before interest, taxes, depreciation and amortization (EBITDA). Another way to view the asset class is based upon the size of a company's senior credit facility. Both of these criteria focus on the ultimate liquidity of a company's debt securities. Seniority, shown on the vertical axis, is simply where the debt falls within a company's capital structure.

The dividing line between large and small issuers historically has been EBITDA of roughly $100 million or a senior credit facility of approximately $350 million—with investments above that line considered liquid and investments below that generally considered illiquid. For reasons highlighted in more detail below, but largely as a result of the significant capital that has poured into the "liquid" segments of the market, the dividing line has moved down, from $100 million EBITDA several years ago to around $50 million in EBITDA today—with a corresponding reduction in the size of a senior credit facility considered to be "liquid" of approximately $250 million. It remains to be seen how structures in the newly-established middle ground, which have been structured with large-market terms (including with covenant-lite terms in many instances) will fare in a credit cycle. Despite these concerns, as large market investors (primarily CLOs and mutual funds) have searched for yield, they have been willing to push lower in company size in order to find it.

Below is a discussion of the various asset classes within the U.S. non-investment grade corporate debt market, beginning with broadly syndicated loans.

Broadly syndicated loans

Broadly syndicated loans are floating rate loans made to corporate borrowers that generally have greater than $50 million in EBITDA (in most cases, at least $100 million). They are senior in the capital structure and have a first claim on the assets of the borrower. Unlike middle market loans, which are typically made by a small number of co-lenders in a "club" structure where the lenders know each other and cooperate closely, a broadly syndicated loan ("BSL") may have anywhere from 15 to more than 100 investors in a senior credit facility, the vast majority of whom are mutual funds or collateralized loan obligations ("CLOs"). Held by a large, diverse group of investors, broadly syndicated loans tend to be more liquid than middle market loans. The result is that pricing and terms in the BSL market are often driven by technical factors, rather than fundamentals. In addition, large investor groups are difficult to coordinate, so dealing with restructuring transactions in the BSL market is often much less effective than in the middle market.

In recent years, the broadly syndicated loan market has been marked by a period of significant liquidity, with substantial amounts of capital flowing into the market through loan mutual fund inflows and new CLO formation. For example, in 2014, there was record-setting CLO formation of over $120 billion and there is more than $410 billion in CLO vehicles outstanding today. In addition, there is another $130 billion held in loan mutual funds. Also, in contrast to the MML market, the BSL market is characterized by a two-step distribution model, with large banks underwriting and distributing loans to mutual funds and CLOs. Given the capital requirements associated with leveraged lending, the large banks are incentivized to originate and distribute underlying loans in order to generate fee income, but they rarely hold much (if any) of the underlying loan on their balance sheets.

> Held by large investors and very liquid, BSL prices and terms are often driven by technical factors, rather than fundamentals.

Where does Churchill Asset Management fit in this landscape?

An affiliate of TIAA Global Asset Management, Churchill Asset Management operates in the upper left quadrant of Figure 1. Churchill's disciplined credit approach is designed to identify financing opportunities with companies that are not yet able to access the BSL market, where higher leverage multiples, lower current yields and covenant-lite structures are the norm. Churchill's portfolio features high quality, senior secured loans, with more modest senior leverage, an average all-in yield of approximately 6% to 7% and traditional financial covenants. Churchill's senior-loan investments always have a first lien senior secured position in a company's capital structure.

When assessing a non-investment grade opportunity, investors should understand the segment of the market in which they are operating, and ultimately the risk they are taking. Loans offering similar yields might be attractive but could come with significantly different levels of risk. Understanding where potential investment opportunities lie in the U.S. non-investment grade debt market should assure that investors are truly compensated for the actual risk they are taking.

The dynamic created by this market structure is one in which the credit decision at the large distribution-focused banks is not driven by the fundamental credit quality of the loan or the strength of the business, but rather by what they are able to sell to the yield-hungry buyers of large liquid loans.

The large amount of capital available to BSL issuers has resulted in a supply-demand dynamic that is today heavily skewed in favor of the borrowers—driving pricing down significantly in this market. Current all-in yields are approximately 4% to 5% compared to 6% to 7% for middle market senior loans. This "yield premium" for middle market loans reflects the lack of liquidity and better supply-demand dynamics in middle market. Additionally, covenant-lite loans (where transactions contain no financial covenants) have become the norm in the BSL market, removing an important early warning system that allows lenders to react to deteriorating conditions before they become addressable

only through the often very difficult bankruptcy process. The absence of tests on the fundamental performance of the borrowers removes the opportunity for lenders to negotiate with business owners to discuss ways to improve performance and to avoid distress. Without financial covenants, the first time the lender is directly involved is when the borrower is unable to pay the interest due on its loan and is on the verge of a free-fall restructuring or bankruptcy filing. This is one of the key reasons that historically default rates tend to be higher and recoveries lower among large companies versus middle market ones. Broadly syndicated loans also typically have higher leverage than middle market loans—further undermining credit quality in the BSL market.

> Broadly syndicated loans also typically have higher leverage and looser structures which make them riskier than middle market loans, which tend to have less leverage and traditional covenants.

High-yield bonds

High-yield bonds are non-investment grade fixed-rate public debt securities that have many of the same market dynamics as broadly syndicated loans. The high-yield bond market is large, representing approximately 15% or $1.2 trillion of the $8 trillion public U.S. corporate debt market[1] and are widely available to all investors. High-yield bonds typically feature fixed rate coupons, higher yields and greater liquidity than broadly syndicated loans but are more junior in the capital structure and unsecured, meaning they rank behind broadly syndicated loans in priority of repayment.

Like the broadly syndicated loan market, investors are typically mutual funds, insurance companies and other institutional and individual investors. These investors have poured significant amounts of capital into the high-yield bond market in search of yield. As a result, yields have compressed to 6% to 7% today. High-yield bonds are typically fixed rate, which exposes them to interest rate risk and potential principal declines as interest rates rise. The high yield market is also subject to periods of significant volatility, as seen in September of this year when the market traded down nearly 3% in response to global market concerns. Similar to the broadly syndicated loan market, the high-yield bond market has also migrated to covenant-lite structures. Investors need to decide if the somewhat higher yield is enough to compensate them for subordination, higher leverage, higher market volatility and no covenant protection.

Mezzanine debt and second lien loans

Moving below the dividing line that separates the large-liquid market issuers from the middle-market—but staying junior in the capital structure—is the market for junior capital. This is an asset class that has garnered significant investor interest over the past several years. Junior capital investments come in a number of forms, principally mezzanine debt and second-lien loans.

Middle market junior loans typically feature higher interest rates than middle market senior secured loans, but are riskier, since they sit below the first-lien debt in a borrower's capital structure. Junior loans are often fixed rate, which does not give investors protection in a rising interest rate environment. There are several types of investors in this asset class—including public business development corporations (BDCs) (which together control in excess of $80 billion in investment capital today), credit opportunities funds, mezzanine funds and hedge funds. The amount of capital raised to pursue these higher yielding debt opportunities has created a supply demand dynamic that also favors borrowers.

The resurgence of the second lien market has cut into the yields historically available in this market as well. Historically, this asset class was dominated by private mezzanine debt carrying coupons of between 12% and 14%. Today, due largely to the significant amount of capital raised to invest in this asset class, mezzanine debt has been replaced by second lien loans, where investors are willing to settle for rates as low as 9% for very similar risk. Like the other segments of the market where the supply of capital has outstripped the demand from borrowers, leverage has pushed higher, pricing lower and structures have gotten looser.

Middle market senior loans

Middle market senior secured loans represent the one segment of the U.S. non-investment grade credit market where the supply and demand dynamic today is relatively balanced. Based on the over $500 billion of equity capital committed to private equity firms in the U.S. that is undrawn and expected to be invested over the next 5-to-7 years and the over $500 billion of middle-market loan maturities expected over that same time period, there is projected demand of over $1 trillion in this asset class. The vast majority of this projected demand will be for senior debt capital as typical middle-market debt structures consist of 80% senior secured debt, with only 20% junior debt, (and many middle-market companies do not employ any junior debt at all).

This significant demand comes during a period of declining supply as many traditional lenders to middle market companies have significantly reduced lending activity or exited the business entirely, a trend that accelerated after the credit crisis. The first driver of the shift away from traditional lenders was the consolidation that occurred in the U.S. banking sector over the past 20 years. As the largest banks (principally JP Morgan, Citibank, Wells Fargo, and Bank of America) consolidated and got larger, they left the middle market, moving up-market to focus on capital markets activities. The second, more recent phenomenon since the credit crisis, is the imposition of stricter regulatory burdens and capital charges on the large banks, keeping them firmly out of the middle market. Non-traditional lenders have filled the void, raising capital from pension funds and other institutional investors seeking yield in an attractive and relatively safe asset-class, as exhibited by GE's recent sale of its Antares middle market lending business to the Canada Pension Plan Investment Board.

Despite increased interest in traditional middle market senior loans, there are still only a limited number of market participants, keeping supply relatively in balance with demand. These lenders form "clubs," or groups of two to ten or so lenders who work together to combine investor capital and structure financing packages for a single borrower. In addition, unlike the broadly syndicated loan market, the middle market is a buy-and-hold market. This means that the lenders that originate traditional senior loans in the middle market expect to hold that loan until it repays. It is critical therefore, that middle market lenders maintain discipline around underwriting standards and credit quality. This results in structures that are more conservative than those found in the broadly syndicated loan market, evidenced by generally lower leverage and traditional covenants. The measured pace of the private market allows lenders to perform true due diligence, including gaining access to a private equity sponsor's full industry research, quality of earnings report, customer calls and insurance diligence background. Most importantly, senior middle-market loans are much more likely to contain traditional financial covenants, which enables the lenders negotiate with borrowers should financial performance deteriorate, but before the borrower is in distress. The middle market is thus substantially differentiated from the larger broadly syndicated loan market, where originators ultimately hold little of a loan, investors buy what is available on the market with little review and positions are traded in an active and public secondary market.

> Middle-market loans typically feature floating rates, which are set at 400-600 basis points over LIBOR, with a LIBOR floor of 100 basis points. The rates also adjust higher or lower based on market movements, providing a significant benefit in rising rate environments.

Defining characteristics of middle-market loans

Middle-market loans hold first-lien secured status in a company's capital structure which means the loans are backed by a range of corporate assets and would not be impaired unless there is a significant loss event. Leverage remains more reasonable with typical deals having between 4 and 4.5 times debt-to-EBITDA, while providing a significant junior capital cushion of between 50% and 60% of the capital structure in the form of junior debt and equity. Many middle market borrowers benefit from the ownership of a middle market private equity sponsor, who typically invests significant equity capital (35%+), and conducts substantial due diligence on the borrower. This private equity sponsor typically controls the borrower and serves as a source of capital and operational and strategic expertise as the company grows. Additionally, while other markets have abandoned them, middle market senior loans still require borrowers to meet and report on certain financial covenants on a quarterly basis. These covenants might include a leverage test (measured by the debt-to-EBITDA ratio), a fixed charge coverage test or a minimum EBITDA test. Through quarterly review of a covenant compliance certificate provided by the company, lenders can keep close tabs on whether problems are arising, allowing for early conversations with the borrower and its owners on how to alleviate the situation before a default event. Finally, middle market loans typically feature floating interest rates, which are set at 400-600 basis points over the LIBOR rate, with a LIBOR floor of 100 basis points. The rates adjust higher or lower based on market movements, providing a significant benefit in rising rate environments. The current market environment for middle market loans, combined with structural and pricing trends, offers attractive risk-adjusted return opportunities.

The current market for middle market loans offers attractive risk-adjusted return opportunities.

Why MMLs are the "sweet spot" for non-investment grade credit

Investing in private middle market loans offers institutional investors compelling yield opportunities, while at the same time helping them avoid or minimize some of the risks inherent in other non-investment grade debt such as broadly syndicated, high-yield bonds and junior debt investments in the middle market. For starters, middle-market loans are structured as long-term "buy-and-hold" investments. Lenders are generally like-minded investors—not traders—who are committed to working closely with borrowers over the duration

Figure 2: MML yield premium vs. BSL

	Historical average 3Q2010–2Q2015	Current market conditions****
Investment/Index	**Yield***	**Yield**
Middle market loans**	6.95%	6.29%
Broadly syndicated loans***	5.81%	4.98%
Yield premium	**1.13%**	**1.31%**

Source: S&P Capital IQ LCD

*3 month average new-issue yield from 7/1/10 through 6/30/15. Source: S&P Capital IQ LCD

**EBITDA of $50 mm or less

***Large corporate loans (EBITDA of more than $50 mm)

****Current new-issue yield as of 6/30/15. Source: S&P Capital IQ LCD

Figure 3: MML yield premium vs. high yield

	Historical average 3Q2010–2Q2015	Current market conditions****
Investment/Index	**Yield***	**Yield**
Middle market loans**	6.95%	6.29%
High yield bonds***	6.77%	6.73%
Yield premium	**0.18%**	**(0.44%)**

Source: S&P Capital IQ LCD, Bank of America/Merrill Lynch Global High-Yield Strategy.

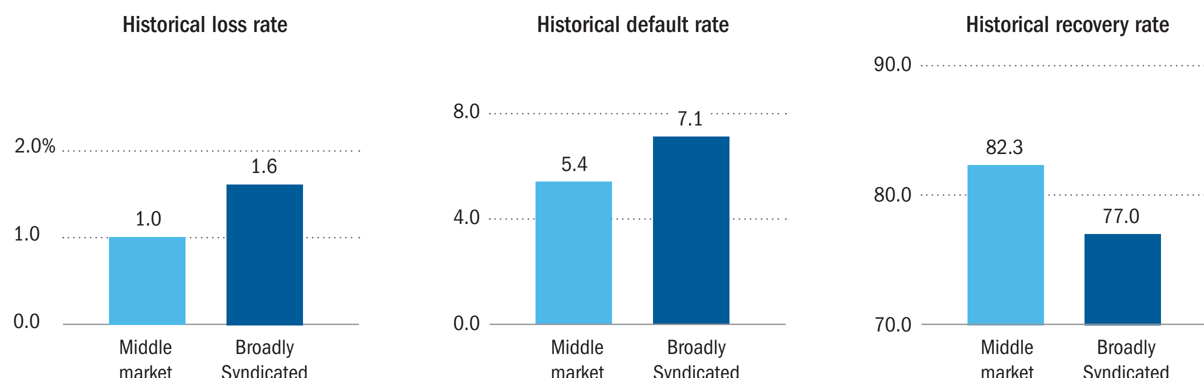
*Middle market loan yield is 3 month average new-issue yield from 7/1/10 through 6/30/15. High yield bond yield is month-end average yield to maturity. Source: S&P Capital IQ LCD, Bank of America/Merrill Lynch Global High-Yield Strategy.

**EBITDA of $50 mm or less.

***Bank of America/Merrill Lynch Global High-Yield Strategy

****Current middle market loan new-issue yield as of 6/30/15 and 6/30/15 average high yield bond yield to maturity. Source: S&P Capital IQ LCD, Bank of America/Merrill Lynch Global High-Yield Strategy.

Figure 4: Middle market & broadly syndicated loan performance through the downturn, 1995–2011



Source: S&P LCD, S&P Credit Pro.; Middle market loans include total facility sizes of less than $200 million and broadly syndicated loans denote total facility sizes of greater than or equal to $200 million

of a loan to resolve any potential problems directly with the buyers. Buy-and-hold, however, also means the loans are relatively illiquid. To compensate for this illiquidity, investors receive better credit protection and favorable yields for middle-market loans versus some of the other non-investment grade asset classes—typically a yield premium of between 100 and 200 basis points over broadly syndicated loans and relative yield parity to high yield bonds. And middle market loans are senior secured and provide for a floating rate—offering an element of protection for rising interest rates when compared to high yield bonds. The tables below show the comparable yields for middle-market loans compared to both broadly syndicated loans and high-yield bonds.

Middle-market loans are also more conservatively structured when compared to other non-investment grade options, as middle markets feature lower leverage multiples, higher interest coverage and tighter covenant packages than broadly syndicated loans. This can be seen in the historical credit performance of middle market loans when compared to broadly syndicated loans in Figure 4.

Figure 5: Average credit statistics, 2000–2014

Investment	Senior debt/ EBITDA	Total debt/ EBITDA	EBITDA/ Cash int.
Middle market LBO	3.78x	4.41x	3.06x
Large LBO	4.18x	5.07x	2.83x

Source: S&P LCD, period from 1/1/00 to 12/31/14; represents unadjusted EBITDA

And finally, with interest rates poised to increase (albeit slowly), the floating rate feature of middle market loans provides protection against rising interest rates. Middle market loans also typically contain LIBOR floors of 1%, which mitigates the current low-interest rate environment and protects against rates moving too low.

About TIAA Global Asset Management

TIAA Global Asset Management and its affiliate firms provide investors with access to innovative investment strategies through expertise that spans traditional and alternative asset classes, as well as investments in more than 40 countries. Collectively managing $854 billion in assets, the business generates new investment opportunities for clients through a wide array of vehicles including funds, customized strategies and solutions. TIAA Global Asset Management is committed to TIAA's legacy of helping individuals, intermediaries and institutional investors achieve long-term investment success.

Conclusion: Partnering with an experienced middle market credit manager

There are roughly 350,000 private middle market companies in the U.S. today, employing over 32 million people. If this sector was a standalone country, it would be the fourth largest economy in the world. The sheer size of the market results in significant deal flow and investment opportunities. However, because the middle market is vast, complex and varied, there can be wide performance dispersion among asset managers who operate in this space. There is also a high degree of inefficiency in the asset class, which means there are tremendous opportunities for managers to outperform/underperform their peers in the category.

TIAA believes that an experienced investment team can generate strong risk-adjusted returns by lending to middle market companies in the current market environment. A diversified portfolio of senior loans made to high-quality middle market companies currently has the potential to generate a 6% to 7% asset-level yield, representing a significant premium to public-market alternatives. Using modest leverage through a well structured senior credit facility, the return for this strategy has the potential to generate a 10% to 12% net yield to investors—making it a very compelling investment option for institutional investors looking for solid current yield without going deeper in the capital structure and taking on significantly more risk.

About TIAA and Churchill Asset Management

Drawing on over 40 years of investment experience in private markets, TIAA has developed a robust platform with proprietary sourcing capabilities and cycle-tested investment teams focused on a wide range of private market asset classes that include private placements, senior secured loans, mezzanine finance, private equity funds and co-investments.

An active middle market investor, TIAA manages a large, well-established and diversified portfolio comprising private equity fund commitments, direct equity co-investments, mezzanine and senior loans. TIAA's senior middle market debt investing is conducted through majority-owned affiliate Churchill Asset Management. Together, TIAA and Churchill Asset Management provide investors with a focused strategy for capitalizing on opportunities in the middle market, extensive market knowledge and a differentiated platform that can offer institutional investors access to opportunities not easily replicated by traditional asset classes and that may serve as a tool for portfolio diversification.

1. SIFMA data as of Sept. 30, 2015

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TIAA Global Asset Management provides investment advice and portfolio management services through TIAA and over a dozen affiliated registered investment advisers.

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