Introduction to Private Credit

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Introduction

Large institutional investors allocate a significant amount of their total assets to fixed income, which is intended to provide consistent income and lower volatility than equity. Insurance companies, pension funds and certain other long-term investors seek specific fixed income assets that provide both long duration and potentially lower losses than other investment choices. Many of these investors now realize that the fixed income asset class that can provide the duration they need along with potentially higher returns and lower losses is private credit, also known as "private placements" (in this paper we use both terms interchangeably).

The purpose of this paper is to introduce the asset class and explain its nature, characteristics and distinctions and explore some of the advantages and risks of investing in private credit.

Private Credit Defined

Private placements are essentially long-term loans to corporations, 90% of which are investment grade. Borrowers utilize the private placement market for a variety of reasons: to maintain confidentiality of their financials, to obtain more flexible terms than offered by the public market or to borrow money when their credit histories are more complex in nature. The borrowers use the proceeds to finance acquisitions, refinance existing debt, support business expansions and other general business purposes.

The debt offerings are "private" because the notes are sold only to qualified institutional buyers[1] (QIBs) and as such do not have to be registered with the U.S. Securities and Exchange Commission (SEC). For purposes of this paper, the terms private credit and private placements refer to Regulation D securities[2] and do not include securities issued under Rule 144A.[3]

Functionally, a private placement is a hybrid of a public bond and a traditional bank loan. Characteristics shared with public bonds include a fixed rate structure and term length. Similarities with bank loans include greater upfront due diligence, priority debt and financial covenant protection and a more intensive ongoing relationship with borrowers.

Private credit deals are large in size and can range from $50 million to over $1 billion; the volume of new issuance in a given year is typically about a quarter of the public bond market (approximately $50 billion). Primarily originated by large investment and commercial banks, some investments are direct transactions with either a single investor or a "club deal" with several large investors. When a new private placement is offered, the deal is typically purchased by 5–20 institutional investors. The asset class tends to be a good fit for portfolios with long-term liabilities and less need for liquidity, such as insurance companies and pension plans.

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1 Qualified institutional buyers are large institutional investors; e.g., insurance companies with at least $100 million in investable assets.

2 The Securities Act of 1933 ("Securities Act") requires that all securities must be registered with the U.S. Securities and Exchange Commission (SEC) unless covered by an exemption to Regulation D. The exemptions allow issuers to borrow an unlimited amount of debt without registration. Generally in these types of transactions, issuers provide audited financial statements, are responsive to potential investor's questions and restrict trading the offerings to "accredited investors" as defined under Reg D. The investors directly negotiate the terms of the transaction with the issuer.

3 Rule 144A securities are also sold to qualified institutional buyers (QIBs) and are exempt from registration under the Securities Act, but unlike traditional Reg D securities, there is less access to information, less time to review the transaction and less opportunity to influence terms.

It should be self-evident that private placements are privately issued and not traded on any public exchange. Instead, they are directly traded among institutional investors in a private secondary market. Although the perception persists that private placements are illiquid, it is actually a byproduct of the fact that the primary investors (mainly life insurance companies) are “buy-and-hold” investors. Although there is limited liquidity to buy holdings, the ability to sell is very good, with prices for bonds sold during the 2009 financial crisis averaging 98% of par and 99.9% of prior month-end prices (based on Voya Investment Management’s market experience during that time).

Private credit investments are known for their flexible structure with respect to maturity dates, delayed drawdowns and multiple fundings for a given borrower. Most are fixed-rate offerings, but they may also be structured with floating rates. The flexibility is an important advantage of the private market over the public market and results in increased opportunities for active private lenders.

When an investment bank launches a new transaction into the marketplace, it is generally reviewed by the largest participants in the market. Although there are approximately 50 insurance companies active in the private placement market, the top ten participants represent approximately 70% of the market on an annual basis. Each investor then places a bid on the transaction; if the borrower accepts the proposed pricing and terms submitted, the investors are included in the deal. Often, investors will have comments on the legal documents or covenants, making each transaction a uniquely negotiated deal. Figure 1 illustrates the minimum and maximum bid sizes allocated to each private credit investor based on the overall deal size; Voya Investment Management is consistently ranked in the top tier of allocations versus peers.

Figure 1. U.S. Private Credit Investor Bid Sizes

(in $ millions, as of 2014)

	Minimum	Maximum		Minimum	Maximum
Met Life	50	175	**Babson**	40	75
Voya	50	150	**Delaware**	40	75
AIG	50	150	**John Hancock**	40	75
NML	50	150	**USAA**	40	75
Pricoa	50	150	**AEGON**	30	60
Teachers	50	150	**Nationwide**	30	60
New York Life	50	125	**Aviva**	25	50
			Mutual of Omaha	25	50

Source: Credit Agricole

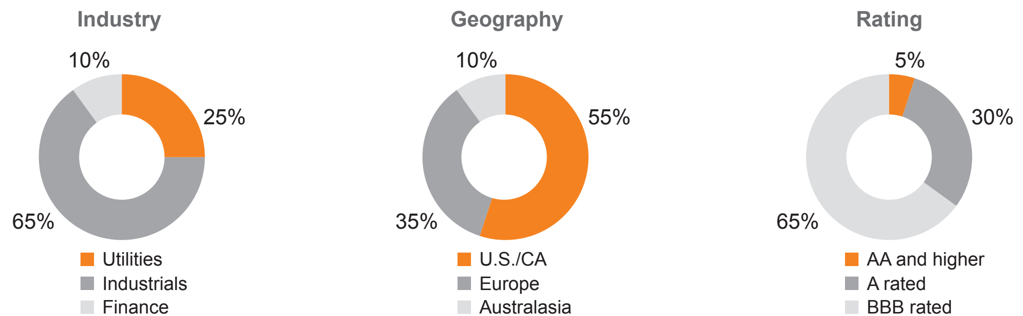
Once the various deal points are negotiated, the investors commit or “circle” the transaction. After that, the investors conduct further due diligence — generally an on-site visit, touring key facilities of the company and meeting the next line of operational management. In certain cases — repeat issuers to the private market, a directly originated deal with an existing borrower or a project finance deal that is not yet under construction — a conference call with senior management may suffice. With a project finance deal, an analyst will make an on-site review once significant construction progress is achieved. After due diligence is completed, investors will work on the finalization of the documentation.

Characteristics of Borrowers

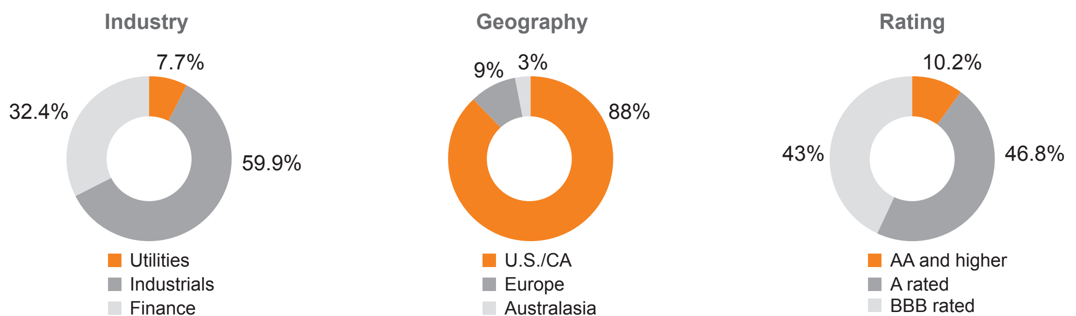
The average size of a private placement issue is approximately $300 million, but it can range from $50 million to over $1 billion. Historically, over half of issuers are U.S. domestic firms, 50% are rated by external agencies, and less than 20% are private firms. Of the 45% that are foreign, many tend to be larger-capitalized firms that may or may not be rated and do not want to undergo SEC registration. While private placements are available in all rating categories, approximately 75% of issuance is done by borrowers with credit quality between A- and BBB-. The size of the borrowers varies, with revenue of issuing companies generally ranging from $250 million to over $10 billion.

Figure 2. Private Placement versus Public Bond Market Borrower Characteristics

Private Placement Market



Barclays U.S. Corporate Investment Grade Index



Source: Voya Investment Management, Barclays, Bank of America Merrill Lynch

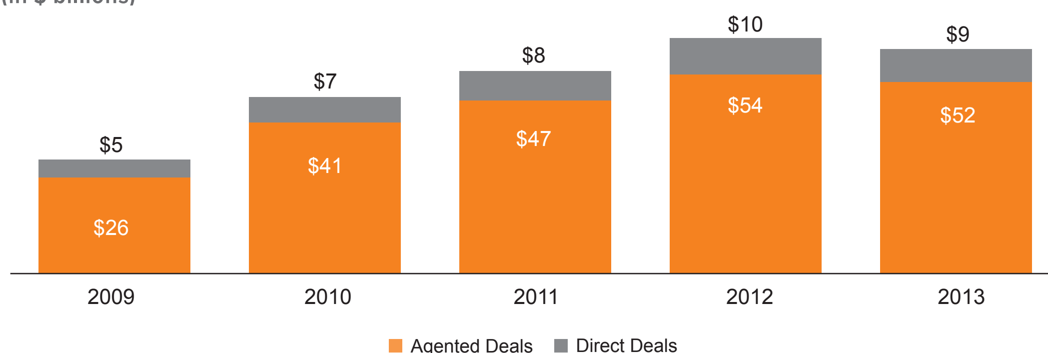
Examples of companies who have issued recently in the private credit market include AEP Transmission, Britvic, BMW, Compass Group, Heineken, Kayne Anderson, Luxottica, Mars, National Hockey League, National Football League, Powercor Australia, SAP and Smith & Nephew.

Size of the Market

The aggregate market for private placements is in excess of $500 billion — significantly smaller than the U.S. public corporate bond market. The total market volume continues to grow while the proportion of direct deal volume (16%) is unchanged, as few investors have the scale to commit to direct transactions. Prior to 2000, the vast majority of investments were in small transactions of less than $100 million. Since 2000, deal amounts have more than doubled, with most deals now exceeding $250 million. Also, the sizes of companies that have approached the market have increased. Prior to 1999 most had less than $200 million in earnings before interest, taxes, depreciation and amortization (EBITDA); since 2006 issuers' EBITDA has increased, with the majority now exceeding $500 million annually.

Figure 3. Historical Private Placement New Production Volume

(in $ billions)



Source: Private Investors Association, Bank of America Merrill Lynch, industry sources

There is an active secondary market for private placements, which trades about 10% of the annual issuance volume of approximately $50 billion. Legally, a holder can sell its position in a private placement subject to the securities laws and any contractual limitations in the relevant note purchase agreement. A majority of private placements do not have any contractual limitations on transfer; the most common limitation is to limit sale of the notes to a competitor of the issuer, which as a practical matter generally is not much of a limitation.

Over the next ten years, liquidity is anticipated to remain the same in comparison with the public market — selling holdings will be relatively easy, while the ability to buy holdings will be more limited (as it depends on issuer supply).

Private Credit Performance

Private placements have historically provided steady returns above comparable-duration public bonds. There is no index for private placements, but investors track total returns versus appropriate public benchmarks. As industry data for this asset class is limited, illustrated below are the historical return and risk data for the Voya private placement portfolio. Over longer time periods, private placements have outperformed a public bond index of similar duration with less risk as measured by standard deviation.

Figure 4. Private Credit Has Outperformed a Duration-Neutral Public Credit Index

Annualized Total Returns as of 12/31/2014 (%)

	Voya Private Placement Portfolio	Barclays U.S. Corporate Duration-Adjusted Index	Annual Outperformance
1 Year	6.46	4.89	1.57
3 Years	4.68	4.23	0.46
5 Years	6.35	5.15	1.19
10 Years	6.20	4.87	1.33

Annualized Standard Deviation as of 12/31/2014 (%)

	Voya Private Placement Portfolio	Barclays U.S. Corporate Duration-Adjusted Index	Variance
1 Year	2.73	2.22	0.51
3 Years	3.01	2.80	0.21
5 Years	2.93	2.94	-0.01
10 Years	4.19	4.53	-0.35

Source: Voya Investment Management, Barclays Live

Distinguishing Private Credit from Public Bonds

Private placements are debt offerings issued by a corporate borrower and are very similar to public bonds. In both asset classes, companies pay a fixed rate of interest over a set period of time.

However, privates may achieve additional yield and total return compared to corporate public bonds of similar credit quality and duration due to higher up-front yields, prepayment and amendment/waiver fees, and lower actual credit losses in the event of default. The up-front yield advantage ranges from 20 to 100 bps and is achieved without actively trading a public bond portfolio to generate alpha. The various fee components result in additional annual income of approximately 30 bps on a diversified portfolio with a similar amount coming from the lower loss experience, which is driven by covenant protection.

Figure 5. Differences between Private and Public Bonds

	Investment Grade Private Placement Debt	Public Bonds
Income	Fixed	Fixed
Security	Secured/Unsecured	Unsecured
Ranking	Senior and cannot be subordinated	Can be subordinated
Investor Type	Institutional asset manager	Institutional asset manager; Banks; Hedge Funds
Covenants	Maintenance/comprehensive	None
Coupon Spread	20–100+ basis points over Public Bonds	65–300 basis points over Treasuries
Prepayment	Callable with Treasury +50 basis points Make Whole premium	Some callable at par
Tenor	Flexible 2–30 years	3, 5, 20, and 30 years
Size	Average $300 million	Average $700 million
Liquidity	Actively traded private market	Actively traded public market
Information	Public and private– quarterly/semi-annual	Public–quarterly/semi-annual
Recoveries	90%	46%

Source: Voya Investment Management

Below we discuss some of the unique features of private placements.

Contractual Protections. Private placements are made under the terms of a written contract — the note purchase agreement — that sets the interest rate to be paid by the borrower and limitations on a borrower's business operations designed to enhance the probability that the lenders will be repaid. Such limitations, called covenants, are designed to monitor the financial health of a borrower and limit the ability of the borrower to incur additional debt.

If these restrictions are violated by the borrower, the note purchase agreement gives lenders the right to take certain actions against the borrower, ranging from increasing the interest rate on the note to calling the notes and requiring the immediate repayment in full.

Covenants. Covenants are unique to each transaction, can vary widely depending on circumstances and are virtually nonexistent in investment grade public bonds. The covenants are designed to maintain pari passu (or equal) treatment with other senior creditors and to force prepayment while the credit is still financeable by its banks or other lenders. When an exit is not possible, terms can be renegotiated to improve recovery rates if payment default ultimately occurs or increase the yield via fees and coupon rate increases. Generally, there are three types of covenants: 1) those that protect the note holders' position in the capital structure, 2) those that protect against credit deterioration, and 3) those that protect against "event risk," or the company favoring its equity holders over its debt.

Private placements are callable at any time; however, the call is at a "make whole" price. While technically complex, the "make whole" concept allows the investor to maintain the initial yield of the investment over the

remaining term regardless of whether interest rates have increased or decreased since funding. Hence, while privates are fully callable, they are not negatively convex.

We estimate the long-term excess value of covenants to be 30 bps versus non-covenanted public bonds. Value comes from amendment and waiver fees, pre-payment fees, coupon increases and lower losses in the event of default.

Spread. The interest rate on a private placement is expressed as a nominal spread over a base rate (namely, the U.S. Treasury). Borrowers choose a wide variety of maturities, including 5, 7, 10, 12, 15 and 30 years. Borrowers sometimes will also offer unique maturities (e.g., 22 years or amortizing schedules) depending on their borrowing needs.

The nominal spread is the amount of interest that a borrower will pay in addition to the base rate. This spread is typically a fixed amount, and it is usually expressed in basis points. The spread differs across industries depending on the creditworthiness of the particular borrower.

To understand the interest rate locked in by a borrower on a private placement, if the ten-year U.S. Treasury was currently at 2.80%, a borrower whose spread was 200 bps above the ten-year rate would pay interest at a rate of 4.80%. The spread is higher than a similarly rated public bond due to an illiquidity premium. In our experience, the historical spread to publics averaged 70 bps for the seven years prior to 2008. It widened to 120 bps in 2008 and 2009 and has been approximately 80 bps since 2009.

Prepayment. The standard provision in the U.S. private placement market is that notes are callable at the greater of “make whole” premium or par. The make whole premium is calculated as the value of the notes being prepaid discounted at a rate equal to the sum of (a) the current rate of the U.S. Treasury with the same average life as the notes and (b) 50 bps. This formulation protects the note holders during times of declining interest rates. In theory, the note holder can take the returned principal, interest and make whole premium and invest it in a security with the same average life as the prepaid notes, yielding U.S. Treasuries plus 50 bps and remain “whole” with respect to the original yield on the investment. In rising interest rate conditions, note holders can “sell” the notes at par, which still provides a premium, because the bond is worth less in the higher interest rate environment, and then reinvest at higher yields. Private placement notes are callable at any time but because of the make whole provision are not negatively convex.

Make whole fees as a percentage of the total portfolio will vary because companies may choose to prepay loans on an ad hoc basis. Prepayment “make whole” fees generate approximately 20-plus bps of incremental investment income per year in a portfolio.

Tenor. Issuers in this market typically issue notes with maturities between three and 30 years; the most common maturities are seven, ten and 12 years. Currently, the attainable spread to public bonds is higher in the shorter tranches due to 1) demand for longer-duration product from many investors and 2) the low absolute level of interest rates. Private investors have held to minimum yield hurdles more stringently than their public counterparts.

Recoveries. The private credit asset class has an inherent advantage over public bonds due to its negotiated covenant structures that are tailored to each credit. Private placements generally are pari passu with bank loans and ahead of unsecured bondholders. As a result, if a company becomes distressed and falls into bankruptcy, private placements are in line to be repaid with the banks and typically get paid back before public bondholders, preferred shareholders or holders of a company’s equity. This has led to significantly higher recoveries on defaulted private placements in comparison to recoveries on defaulted public bonds.

From 2003 to 2012 at Voya, private placements have demonstrated a recovery rate of about 90% compared to unsecured public bonds, which have historically recovered approximately 46%. We believe industry average recovery rates should fall in the 60–90% range.

Ways to Invest

Due to the unique nature of the asset class, clients can invest in the market through portfolio mandates with the largest purchasers in the private placement market. These direct mandates are flexible and can be tailored to specific client needs.

Diversification and Suitability

Because of the long-duration, fixed-liability needs of insurance companies, pension plans and certain other institutional clients, privates tend to fit well in that portion of investors' portfolios that are managed on a buy-and-hold basis. The asset class provides diversification at the credit and country level with little overlap with public bond holdings. There are also multicurrency fundings, so clients interested in non-U.S. dollar exposure can find investment opportunities. An example of this diversification appears below, which shows the credit and country allocations for the Voya private credit portfolio.

Figure 6. Privates Are Offered in a Variety of Countries and Credit Ratings

Allocations as of 9/30/2014

Quality Distribution	% of Portfolio	Top Ten Countries	% of Portfolio
AA and higher	4.54	United States	45.73
A+	3.64	United Kingdom	12.46
A	6.75	Australia	9.14
A-	13.92	Canada	7.14
BBB+	20.43	Netherlands	4.80
BBB	27.34	New Zealand	4.53
BBB-	20.26	Germany	2.77
BB and lower	3.11	France	1.71
		Switzerland	1.58
		Ireland	1.38
		Bermuda	0.89

Source: Voya Investment Management

Advantages for Institutional Investors

- Investing in private credit allows a plan sponsor to invest in attractive niche markets and issuers not included in the public bond market or standard indices.
- Private placements contain covenants in the note agreements that are tailored to the issuer and offer meaningful protection to note holders in the event of credit deterioration
  - Covenants typically set limits on leverage, asset sales and the amount of priority debt of the issuer—limits that are likely to make certain the issuer will have access to the debt capital markets under almost all market conditions
  - As a result of the covenants and the active management of the private credit portfolio, Voya's loss rate has averaged 3 bps per year since 2003 on its BBB+ credit quality portfolio, whereas a BBB+ public bond portfolio would have expected losses of 27 bps per year over the same time frame.
- Private placements also have "make-whole" prepayment provisions, which in conjunction with the covenants and active management of the portfolio, are designed to produce a stream of prepayment and amendment fee income every year that is not driven by changes in interest rates. Since 2002, Voya's private credit portfolio has generated an average of 26 bps per year in prepayment and amendment fees payable on a "make whole" basis.

Stable Value Applications

Several of the key attributes of private placements are consistent with stable value investment goals and constraints. Private placements:

- Are typically investment grade credit quality
- Provide diversification to public investment grade issuers
- Give investors the benefit of increased covenants and protection versus public debt
- Yield pick-up versus public debt enhances the portfolios' market/book value ratios, and therefore the crediting rate, in more volatile interest rate environments
- May be less liquid than public bonds, yet the near term liquidity need for stable value clients is typically not high and can be satisfied by U.S. Treasuries and other high quality liquid assets.

Liability-Driven Investing

Relatively long duration and above average yield make private credit a natural investment for a dedicated liability driven investment strategy. The universe of long-duration public bonds that are suitable for such a strategy is not large. Privates can offer valuable diversification benefits.

Insurance Company Portfolio Applications

For many decades, private placement loans have been a mainstay of insurance company portfolios. The long-term nature of their obligations, predictable cash flow, conservative risk posture, financial and legal sophistication and regulatory environment make insurers suitable investors in the asset class. Historically, large life insurers have been the dominant participants in the market; however, new investment vehicles and the willingness of life insurers to accept sub-advisory assignments have brought private placements within reach of a broader range of property casualty companies and other insurers of all sizes.

Data from the National Association of Insurance Commissioners (NAIC) confirm the shares of insurance company bond portfolios represented by private credit, as described in the table below.

Figure 7. Private Credit Represents a Significant Share of Insurance Company Portfolios
(as of 2013)

Average Weighting of Private Placements in Insurer Bond Portfolios	%
Life Insurance Portfolios	28.0
Property/Casualty Portfolios	10.4

Source: National Association of Insurance Commissioners

In terms of risk exposure, the credit quality of life insurers' private placement holdings is very high, with over 90% rated investment grade, as reflected by designations in the top two NAIC categories. The risk-based capital requirements for privates are exactly the same as public corporate bonds so no extra risk capital is tied up for insurance companies when they shift assets from public bonds to privates.

From a pricing perspective a broadly diversified private credit portfolio will closely track the experience of public corporate bonds and offer very similar cross-correlation characteristics with respect to other assets in portfolios. This is because 90% of a typical private portfolio is "matrix priced", with the biggest input to spread on the matrix being comparable public yield spreads at any given point in time (normally available on a monthly basis). The major differentiator in overall experience emerges when real credit losses occur in portfolios. In that event, privates produce much lower actual credit losses (higher recovery rates) due to the structural protection derived from the private covenants (both financial and priority-based) in the various loan documents — which cannot be duplicated in publicly traded bonds regardless of credit quality rating.

To quantify the effects investing in private credit can have on insurance portfolios we considered two different hypothetical scenarios, one for an average life insurance company and one for an average property and casualty company. The portfolio allocation data were sourced from the National Association of Insurance Commissioners as of year-end 2013. The historical monthly return and risk data from 2004 to 2014 were based on the published NAIC average asset allocations using the indexes in Figure 8 as proxies for each asset class. The published allocations were adjusted to eliminate assets (such as receivables) that could not be modeled in a historical investment simulation. We maintained the 2013 allocations for the entire ten-year period.

Figure 8. Assets and Indexes Used in the Historical Simulation

Asset Type	Indexes
Corporate Bonds	Barclays U.S. Corporate Investment Grade Index
Private Credit	Voya Private Credit Historical Return Series
Municipal Bonds	Barclays U.S. Municipal Index
US Government	Barclays U.S. Government Index
RMBS/Mortgages	Barclays U.S. MBS Index
CMBS	Barclays CMBS Index
ABS	Barclays ABS Index
Stocks	Russell 1000 Index
Real Estate	Barclays Investment Grade REITs Index
Cash	U.S. Treasury Bill 3 Month

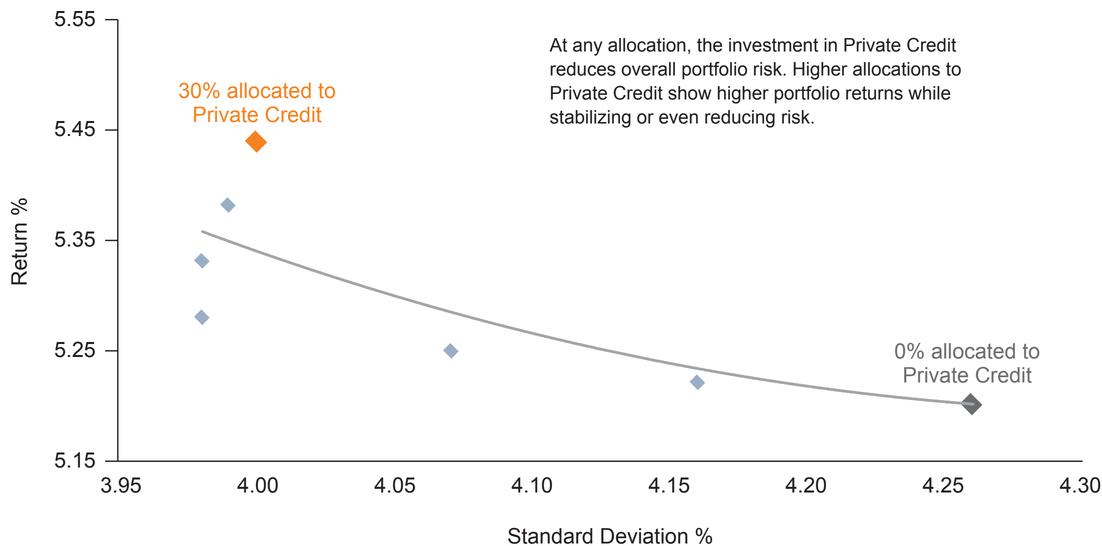
Source: National Association of Insurance Commissioners

In each scenario, an assumed baseline portfolio based on the NAIC portfolio data was used to determine the initial allocations. We then made a series of allocation adjustments to incorporate the private credit investments. Our initial portfolio (Portfolio 1) had 0% allocated to private credit. We then increased the allocation to private credit in 5% increments up to a maximum of 30%. For the life insurance portfolios, the first 15% of the private credit allocations were financed by a reduction in the assumed corporate bond allocation; thereafter, additional allocations were funded by pro-rata reduction of all other asset types in the portfolio. For the P&C portfolios, only the 5% and 10% allocations to private credit were funded by reductions from the corporate bond allocation. Beyond the 10% private credit allocation level all asset types were reduced on a prorated basis. This approach produced seven hypothetical portfolio allocations for each of the two insurance portfolio types. Portfolio details appear in the Appendix.

Hypothetical Life Insurance Company Allocations. The data showed that any allocation to private credit tended to reduce overall volatility (standard deviation). According to NAIC data, we estimate the typical life insurance company allocates about 22% of their portfolio to private credit. For companies with little or no investment in private credit our analysis indicates that increasing the allocation from 0% to 30% would have increased returns by about 24 bps annually over the period 2004–14 while materially decreasing total risk. For life insurance portfolios that often have a large weighting to corporate bonds, allocating a portion of that asset type to private credit can be beneficial from both a return and risk standpoint. The trend line shows the increasing marginal contribution to return as assumed allocations are increased. Risk efficiency — that is, return-to-risk ratios — improved from 1.22 to 1.36 as allocations were increased from 0% to 30%.

Figure 9. Adding Private Credit to Life Portfolios Could Have Improved Both Historical Return and Risk

The Effect of Adding Private Credit to Life Insurance Company Portfolios, 2004–14

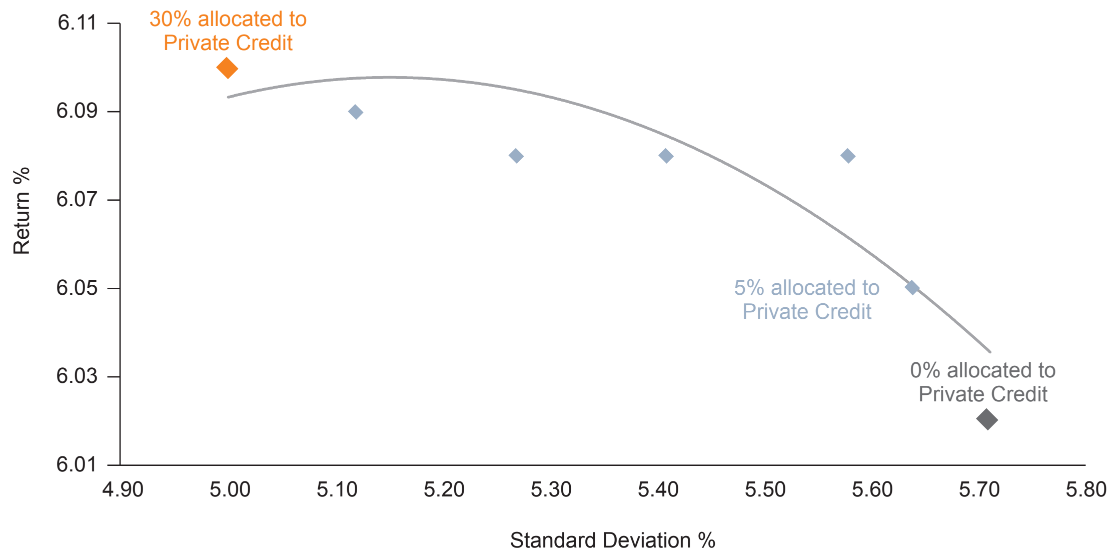


Source: National Association of Insurance Commissioners, FactSet, Voya Investment Management

Hypothetical Property & Casualty Company Allocations. The data showed that any allocation to private credit tends to reduce overall portfolio risk (standard deviation). Based on NAIC data we estimate the average property & casualty company allocates about 6% to private credit. While the overall improvement in total return is more moderate than can be seen in life insurance company portfolios, increasing investment in private credit could materially reduce total volatility, by about 14%; this is a beneficial effect for P&C companies, which have significantly higher allocations to equities than life insurers. The trend line shows the diversification effect of the low correlation of private credit to equities and the decreasing marginal contribution to return as allocations are enlarged. Nevertheless, total return-to-risk ratios improved monotonically from 1.08 to 1.22 as allocations were increased from 0% to 30%.

Figure 10. Adding Private Credit to P & C Portfolios Could Have Improved Historical Return and Risk

The Effect of Adding Private Credit to Property & Casualty Company Portfolios, 2004-14



Source: NAIC, FactSet, Voya Investment Management

Conclusion

Private placement loans offer a unique combination of compelling overall returns and attractive risk characteristics. While private placements alone would not constitute an effective investment program, investors have the opportunity to benefit from the advantages of the asset class by including an allocation in their portfolios.

Appendix 1

Risks of Investing in Private Credit

Private placements are generally investment-grade assets, and like all investments, there are risks associated with investing in a portfolio of private placements.

Below is a description of the primary risks of investing in private placements. The description is not all-inclusive, and before making an investment in a portfolio of private placements, investors should carefully consider such an investment.

The primary risk to an investment in private placements is credit risk. Credit risk is the risk of non-payment of scheduled interest or principal payments on a debt instrument. In the event a borrower fails to pay scheduled interest or principal payments on its debt, a portfolio of private placements would experience a reduction in its income and a decline in market value.

Private placements generally involve less risk than unsecured or subordinated debt and equity instruments of the same issuer because the payment of principal and interest on private placements is a contractual obligation of the issuer that, in most instances, takes precedence over the payment of dividends or the return of capital to the borrower's shareholders and payments to public bond holders.

In the event of the bankruptcy of a borrower, a creditor could experience delays in receiving regular payments of interest and principal and may not receive the full repayment of its principal.

As described above, portfolios of private placements are also subject to interest rate risk. One risk related to interest rates is the potential for changes in the interest rate spreads for private placements in general. To the extent that changes in market rates of interest are reflected not in a change to the base rate, the U.S. Treasury, but in a change in the spread over the base rate which is payable on loans of the type and quality in which a portfolio invests, a portfolio of private placements could also be adversely affected. This is because the value of a debt is partially a function of whether it is paying what the market perceives to be a market rate of interest, given its individual credit profile and other characteristics.

However, unlike changes in market rates of interest for which there is only a temporary lag before a portfolio reflects those changes, changes in a placement's value based on changes in the market spreads on loans may be of longer duration.

If spreads rise as described above, for example, in response to deteriorating overall economic conditions and/or excess supply of new loans, the principal value of private placements may decrease in response. On the other hand, if market spreads fall, the value of private placements may increase in response, but borrowers also may renegotiate lower interest rates on their debts or pay off their debts by refinancing at such lower rates. In that case, the borrowers would be required to pay a make whole amount, which would mitigate the risk.

Private placements trade in a private, unregulated market directly between loan market participants; although most transactions are facilitated by broker-dealers affiliated with large commercial and investment banks. As a result, purchases and sales of private placements typically take longer to settle than similar purchases of bonds and equity securities. In addition, because private placement transactions are directly between investors, there can be greater counterparty risk.

Moreover, despite the increase in the size and liquidity of the private placement market, the market is still relatively illiquid, particularly when compared to the markets for bonds and equities. As a result, portfolios invested in private placements may experience difficulties and delays in purchasing or selling private placements, with resulting adverse impacts upon the prices obtained. During periods of severe market dislocation, such as occurred at the end of 2007 and during 2008, the market can experience severe illiquidity and significantly depressed prices.

Finally, many borrowers are private companies and/or companies that have not issued other debt that is rated by rating agencies such as Moody's Investors Service, Standard & Poor, or Fitch Ratings. As a result, investment decisions related to private placements may be based largely on the credit analysis performed by the adviser to the fund or portfolio making the investments, and not on rating agency evaluation. This analysis may be difficult to perform.

Information about a private placement and the related borrower generally is not in the public domain, since private companies and companies that have not issued public debt or securities are not subject to reporting requirements under federal securities laws. However, borrowers are required to regularly provide financial information to lenders, typically in much greater detail than is available in the public markets. Furthermore, information about borrowers may be available from other private placement participants or agents that originate or administer private placements.

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Appendix 2

Life Insurance and Property & Casualty Company Portfolio Data

Life Insurance Portfolio (%)	
Bonds	80.5
Stocks	5.0
Mortgages	10.9
Real Estate	0.7
Cash	2.9
Total	**100.0**
Bond Allocation	
Corporate Bonds	62.8
Municipal Bonds	6.5
US Government	5.4
RMBS	11.7
CMBS	6.2
ABS	7.4
Total	**100.0**

Property & Casualty Portfolio (%)	
Bonds	61.7
Stocks	31.5
Mortgages	0.5
Real Estate	0.6
Cash	5.6
Total	**100.0**
Bond Allocation	
Corporate Bonds	33.8
Municipal Bonds	37.5
US Government	8.9
RMBS	11.2
CMBS	4.0
ABS	4.6
Total	**100.0**

Life Insurance Portfolio 1		
Corporate Bonds	Barclays US Corporate Investment Grade Index	50.6
Municipal Bonds	Barclays US Municipal Index	5.2
US Government	Barclays US Government Index	4.3
RMBS/Mortgages	Barclays US MBS Index	20.3
CMBS	Barclays CMBS Index	5.0
ABS	Barclays ABS Index	6.0
Stocks	Russell 1000	5.0
Real Estate	Barclays Investment Grade REITs Index	0.7
Cash	US Treasury Bill 3M	2.9
Total		**100.0**
Life Insurance Portfolio 2		
Corporate Bonds	Barclays US Corporate Investment Grade Index	45.6
Private Credit	Private Credit	5.0
Municipal Bonds	Barclays US Municipal Index	5.2
US Government	Barclays US Government Index	4.3
RMBS/Mortgages	Barclays US MBS Index	20.3
CMBS	Barclays CMBS Index	5.0
ABS	Barclays ABS Index	6.0
Stocks	Russell 1000	5.0
Real Estate	Barclays Investment Grade REITs Index	0.7
Cash	US Treasury Bill 3M	2.9
Total		**100.0**
Life Insurance Portfolio 3		
Corporate Bonds	Barclays US Corporate Investment Grade Index	40.6
Private Credit	Private Credit	10.0
Municipal Bonds	Barclays US Municipal Index	5.2
US Government	Barclays US Government Index	4.3
RMBS/Mortgages	Barclays US MBS Index	20.3
CMBS	Barclays CMBS Index	5.0
ABS	Barclays ABS Index	6.0
Stocks	Russell 1000	5.0
Real Estate	Barclays Investment Grade REITs Index	0.7
Cash	US Treasury Bill 3M	2.9
Total		**100.0**

Property & Casualty Portfolio 1		
Corporate Bonds	Barclays US Corporate Investment Grade Index	20.9
Municipal Bonds	Barclays US Municipal Index	23.2
US Government	Barclays US Government Index	5.5
RMBS/Mortgages	Barclays US MBS Index	7.4
CMBS	Barclays CMBS Index	2.4
ABS	Barclays ABS Index	2.9
Stocks	Russell 1000	31.5
Real Estate	Barclays Investment Grade REITs Index	0.6
Cash	US Treasury Bill 3M	5.6
Total		**100.0**
Property & Casualty Portfolio 2		
Corporate Bonds	Barclays US Corporate Investment Grade Index	15.9
Private Credit	Private Credit	5.0
Municipal Bonds	Barclays US Municipal Index	23.2
US Government	Barclays US Government Index	5.5
RMBS/Mortgages	Barclays US MBS Index	7.4
CMBS	Barclays CMBS Index	2.4
ABS	Barclays ABS Index	2.9
Stocks	Russell 1000	31.5
Real Estate	Barclays Investment Grade REITs Index	0.6
Cash	US Treasury Bill 3M	5.6
Total		**100.0**
Property & Casualty Portfolio 3		
Corporate Bonds	Barclays US Corporate Investment Grade Index	10.9
Private Credit	Private Credit	10.0
Municipal Bonds	Barclays US Municipal Index	23.2
US Government	Barclays US Government Index	5.5
RMBS/Mortgages	Barclays US MBS Index	7.4
CMBS	Barclays CMBS Index	2.4
ABS	Barclays ABS Index	2.9
Stocks	Russell 1000	31.5
Real Estate	Barclays Investment Grade REITs Index	0.6
Cash	US Treasury Bill 3M	5.6
Total		**100.0**

	Life Insurance Portfolio (%)	
	Life Insurance Portfolio 4	
Corporate Bonds	Barclays US Corporate Investment Grade Index	35.6
Private Credit	Private Credit	15.0
Municipal Bonds	Barclays US Municipal Index	5.2
US Government	Barclays US Government Index	4.3
RMBS/Mortgages	Barclays US MBS Index	20.3
CMBS	Barclays CMBS Index	5.0
ABS	Barclays ABS Index	6.0
Stocks	Russell 1000	5.0
Real Estate	Barclays Investment Grade REITs Index	0.7
Cash	US Treasury Bill 3M	2.9
Total		**100.0**
	Life Insurance Portfolio 5	
Corporate Bonds	Barclays US Corporate Investment Grade Index	33.6
Private Credit	Private Credit	20.0
Municipal Bonds	Barclays US Municipal Index	4.8
US Government	Barclays US Government Index	4.1
RMBS/Mortgages	Barclays US MBS Index	19.1
CMBS	Barclays CMBS Index	4.7
ABS	Barclays ABS Index	5.6
Stocks	Russell 1000	4.6
Real Estate	Barclays Investment Grade REITs Index	0.7
Cash	US Treasury Bill 3M	2.8
Total		**100.0**
	Life Insurance Portfolio 6	
Corporate Bonds	Barclays US Corporate Investment Grade Index	31.7
Private Credit	Private Credit	25.0
Municipal Bonds	Barclays US Municipal Index	4.5
US Government	Barclays US Government Index	3.8
RMBS/Mortgages	Barclays US MBS Index	18.0
CMBS	Barclays CMBS Index	4.4
ABS	Barclays ABS Index	5.2
Stocks	Russell 1000	4.4
Real Estate	Barclays Investment Grade REITs Index	0.5
Cash	US Treasury Bill 3M	2.5
Total		**100.0**
	Life Insurance Portfolio 7	
Corporate Bonds	Barclays US Corporate Investment Grade Index	29.9
Private Credit	Private Credit	30.0
Municipal Bonds	Barclays US Municipal Index	4.2
US Government	Barclays US Government Index	3.4
RMBS/Mortgages	Barclays US MBS Index	16.9
CMBS	Barclays CMBS Index	4.2
ABS	Barclays ABS Index	4.7
Stocks	Russell 1000	4.1
Real Estate	Barclays Investment Grade REITs Index	0.4
Cash	US Treasury Bill 3M	2.2
Total		**100.0**

	Property & Casualty Portfolio (%)	
	Property & Casualty Portfolio 4	
Corporate Bonds	Barclays US Corporate Investment Grade Index	10.3
Private Credit	Private Credit	15.0
Municipal Bonds	Barclays US Municipal Index	21.9
US Government	Barclays US Government Index	5.2
RMBS/Mortgages	Barclays US MBS Index	6.9
CMBS	Barclays CMBS Index	2.3
ABS	Barclays ABS Index	2.7
Stocks	Russell 1000	29.7
Real Estate	Barclays Investment Grade REITs Index	0.6
Cash	US Treasury Bill 3M	5.4
Total		**100.0**
	Property & Casualty Portfolio 5	
Corporate Bonds	Barclays US Corporate Investment Grade Index	9.7
Private Credit	Private Credit	20.0
Municipal Bonds	Barclays US Municipal Index	20.7
US Government	Barclays US Government Index	4.8
RMBS/Mortgages	Barclays US MBS Index	6.5
CMBS	Barclays CMBS Index	2.2
ABS	Barclays ABS Index	2.6
Stocks	Russell 1000	28.0
Real Estate	Barclays Investment Grade REITs Index	0.5
Cash	US Treasury Bill 3M	5.0
Total		**100.0**
	Property & Casualty Portfolio 6	
Corporate Bonds	Barclays US Corporate Investment Grade Index	9.0
Private Credit	Private Credit	25.0
Municipal Bonds	Barclays US Municipal Index	19.4
US Government	Barclays US Government Index	4.5
RMBS/Mortgages	Barclays US MBS Index	6.1
CMBS	Barclays CMBS Index	2.0
ABS	Barclays ABS Index	2.4
Stocks	Russell 1000	26.4
Real Estate	Barclays Investment Grade REITs Index	0.5
Cash	US Treasury Bill 3M	4.7
Total		**100.0**
	Property & Casualty Portfolio 7	
Corporate Bonds	Barclays US Corporate Investment Grade Index	8.4
Private Credit	Private Credit	30.0
Municipal Bonds	Barclays US Municipal Index	18.1
US Government	Barclays US Government Index	4.2
RMBS/Mortgages	Barclays US MBS Index	5.6
CMBS	Barclays CMBS Index	1.9
ABS	Barclays ABS Index	2.2
Stocks	Russell 1000	24.7
Real Estate	Barclays Investment Grade REITs Index	0.5
Cash	US Treasury Bill 3M	4.4
Total		**100.0**

Investment Risks

There are no guarantees a diversified portfolio will outperform a non-diversified portfolio.

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 equity investing involves risks of fluctuating prices and the uncertainties of rates of return and yield inherent in investing. Foreign Investing does pose special risks including currency fluctuation, economic and political risks not found in investments that are solely domestic. Emerging Market stocks may be especially volatile. Stock of an issuer in the Fund's portfolio may decline in price if the issuer fails to make anticipated Dividend Payments because, among other reasons, the issuer of the security experiences a decline in its financial condition. Securities of Small- and Mid-Sized Companies may entail greater price volatility and less liquidity than investing in stocks of larger companies.

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