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Perspectives

Securing stability: The strategic role of infrastructure debt in US insurance portfolios

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Executive summary

- In our paper "Infrastructure debt: First amongst equals," we provided an overview of the private infrastructure debt market. In this paper, we will explore the suitability of private infrastructure debt for insurance companies.
- Infrastructure debt finances essential assets and services. It can offer insurers exposure to safe and stable cash flows that can support insurance claim payments, while also diversifying their investment portfolio.
- Flexible deal structures allow insurers to tailor investment exposure to match varying return and risk preferences, enabling better asset and liability management.
- Private infrastructure debt investors can select from a variety of investment vehicles, such as private credit funds, direct ownership, and structured solutions, each potentially offering unique advantages and catering to different investment and capital needs.

Favorable economics to meet insurers' needs

Insurance companies often prioritize public and private credits to fulfill liability cash flow requirements and meet policyholders' claim payments. Infrastructure debt, as a private credit investment, offers several compelling features that go beyond traditional credit investments, enhancing both the stability and diversification of insurers' portfolios:

- **Stable and inflation-hedged income:** Cash flows of infrastructure projects can be more accurately forecasted, enhancing their ability to align with insurance claim payments. This stability supports reliable financial planning and management while providing potential insulation from inflation and economic volatility.
- **Unique issuers to enhance portfolio diversification:** Investing in projects such as data centers, renewable energy projects, and public transportation systems introduces unique issuers to an insurer's portfolio. These investments are often backed by long-term contracts with investment grade entities, have the potential to reduce default risk, and enhance diversification, thereby reducing sector-specific risks.
- **Attractive return after factoring expected loss and cost of capital:** Given its defensive nature and cash-generative underlying assets, infrastructure debt has persistently demonstrated lower expected losses and can be structured to receive capital treatment comparable to public fixed income (Figure 1).

Figure 1:
Illustrative expected loss and capital-adjusted return by asset class and rating

	More liquid ⟵			⟶ Less liquid
	Corporate bonds	**Leveraged loans**	**Infrastructure debt**	**Direct lending**
Credit quality	BB	B	BB/B	BB/B
Maturity	5 years	5 years	5 years	5 years
Gross return	6-7%	9-10%	10-11%	10.5-11.5%
Expected loss	1.00%	0.90%	0.60%	1.00%
A. = RBC (Risk-based capital) factor	4.54%	9.54%	7.04%	7.04%
B. = Target RBC ratio	400%	400%	400%	400%
C. = Hypothetical weighted average cost of capital (WACC)	8%	8%	8%	8%
A.*B.*C. = Cost of capital	1.45%	3.05%	2.25%	2.25%
Hypothetical return (net of cost of capital and expected losses)	3.5-4.5%	5–6%	7-8%	7-8%

Sources: National Association of Insurance Commissioners (NAIC), Moody's, Macquarie. For illustrative purposes only and not intended to serve as investment advice. Credit quality assumes directly holding equal weighted BB-rated and B-rated infrastructure debt deals and direct lending deals. Expected loss calculation and return assumptions are taken from "Infrastructure debt: First amongst equals" paper.

Customizable exposure through flexible deal structures

Infrastructure debt provides insurers with opportunities to tailor their exposure across various sectors, geographic regions, and currencies. This adaptability allows insurers to strategically align investments with their specific financial goals and risk tolerance (Figure 2).

- **Sourcing through multiple channels:** Infrastructure debt can be sourced through various channels such as private bilateral financings, club deals, or syndicated loans, offering different degrees of liquidity and customization.
- **Tailored credit agreements:** Deals can be structured to meet specific credit quality, coupon type, and tenor requirements, providing exposure to investments that align with an insurer's risk tolerance and return goals.
- **Robust risk mitigation process:** The tangible nature of the underlying assets often allows for more efficient and predictable resolution processes, enhancing the overall appeal of the infrastructure debt investment.

Figure 2:
Specialized infrastructure debt* characteristics

Category	Specialized infrastructure debt characteristics
Deal sourcing	Bilateral deals directly with sponsors or developers; club deals
Sectors	Utilities, digital, energy, renewables, transportation, and social
Corporate structure	Holding company (Holdco) loan; operating company (Opco) loan
Capital structure	First lien, unitranche, second lien, mezzanine
Collateral	Secured by project assets and/or cash flows from long-term contracts
Tenor	3 years to 10+ years
Coupon type	Fixed or floating, could be structured to adjust for inflation
Repayment structure	Flexible amortization schedule, can be structured as fixed or rely on cash sweep; regular interest payments
Lender protection	Can contain strict financial and project-related covenants

For illustrative purposes only and not intended to serve as investment advice. *Refers to bilateral or small club deals.

Given the economic benefits and the inherent flexibility offered by infrastructure debt, the strategy can play an important role in enhancing the resilience and performance of an insurer's portfolio. We will now discuss various investment vehicles and key considerations for insurers to determine their preferred access methods.

Investment vehicle to access infrastructure debt: A multifaceted consideration

Investment vehicles for accessing private infrastructure debt usually fall into three categories, each offering unique advantages and catering to different investment strategies:

1. **Commingled funds:** These are structured as limited partnership vehicles with multiple limited partners (LPs), offering diversified exposure to various infrastructure projects, spreading risk across sectors and regions. This structure allows insurers to benefit from the expertise of fund managers and achieve broad diversification.
2. **Direct ownership:** Through co-investments or separately managed accounts (SMAs), insurers can directly invest in specific infrastructure projects. This approach offers greater control over investment outcomes and the ability to directly influence project management. Additionally, insurers can choose to secure individual loan ratings for better capital treatment.
3. **Structured solutions:** Solutions such as rated note feeder vehicles produce debt and residual tranches, with the debt tranches usually rated and the residual tranche acting as a protective buffer during stress scenarios. These structures can be applied to commingled funds or SMAs, offering additional layers of risk and capital management.

Choosing the investment vehicle involves multifaceted considerations such as investment flexibility, capital treatment, and more (Figure 3), each with its own trade-offs.

Figure 3:
Primary investment vehicle considerations for US life insurers

	Private credit fund	Direct ownership of deals	Structured solutions
Investment flexibility	• Limited as LPs invest in a commingled fund	• Highest level of customization	• Limited to moderate
Operation, accounting, and legal complexity	• Relatively standard processes as it is a single line item on balance sheet	• Individual deal tracking, cash flow management, obtaining, and monitoring ratings	• Additional processes and legal documentation related with structuring
Capital treatment	• Unrated funds usually are reported in Schedule BA and may subject to 30% RBC factor, which is comparable to private equity funds	• Rated deals receive treatment comparable to public corporates • Unrated deals may receive up to 30% RBC, and private rating can be obtained at a cost	• Rated debt tranches: comparable to rated public corporates • Residual tranche: current RBC factor is 45%, subject to changes
Regulatory backdrop	• Relatively stable	• Rating rationale reports are provided to Securities Valuation Office (SVO) with the potential to be challenged • Likely impacted by the initiative for the modernization of SVO	• Continued attention of regulators, such as the NAIC recently adopted principles-based bond definition
Costs	• Standard private fund investment related cost	• Costs for investment staff along with operational, accounting, tax, and reporting processes • Rating cost for rated deals	• Structuring and legal cost • Rating cost for debt tranches

Source: NAIC, Macquarie. For illustrative purposes only. Not intended to be an exhaustive list.

When choosing investment vehicles for infrastructure debt, insurers must consider the varying regulatory requirements across jurisdictions. Despite the consistency in guiding principles, meaningful differences across jurisdictions still exist that can materially impact the suitability and performance of specific investments. As such, it is important to be aware of the varying regulatory capital requirements when making infrastructure debt investments. To illustrate this, we show the regulatory capital treatment for a life insurer under US RBC and Solvency II (SII), respectively, in Figure 4.

Figure 4:
Regulatory capital for life insurers

		Private credit fund	**Direct ownership**	**Structured solution**	
Attributes	Rating	Unrated limited partnership	B	BBB	Unrated
	Allocation	100% credit	100% credit	80% debt	20% residual
Estimated capital charge	US RBC	30%	9.54%	10.22%	
	SII	9.40%	9.40%	19.80%	

Sources: NAIC, European Insurance and Occupational Pensions Authority (EIOPA), Macquarie. For illustrative purposes only and not intended to serve as investment advice. Estimated capital charge: does not factor nuances such as covariance effect or tax. SII: solvency capital requirement (SCR) standard formula is used. Look-through approach is used for private credit fund. For both private credit fund and direct ownership, we assume the investment is in qualifying infrastructure corporate with 5-year duration. Rated note is a simplified example: assume 80%/20% split between BBB-rated debt tranche and residual tranche. For RBC estimate, we assume 1.52% and 45% RBC factor for debt tranche and residual tranche, respectively. For SII estimate, we assume 12.5% and 49% SCR for the debt tranche and residual tranche, respectively.

Conclusion

Due to the essential nature of the underlying assets, infrastructure debt could provide stable and predictable cash flows that are resilient to changing market conditions and represent an attractive risk-adjusted return.

In addition, given the flexibility in deal structures, infrastructure debt presents opportunities for insurers to customize their investment exposure to suit their unique risk and return requirements, making it a valuable addition to many insurers' portfolios.

When making investments in infrastructure debt, insurers should select the investment vehicle that best fits their needs, taking into account regulatory capital treatment and jurisdictional variations. By effectively leveraging infrastructure debt investments, insurers can enhance their financial stability, manage their liabilities more efficiently, and achieve sustainable growth in their investment portfolios.

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Investment strategies that hold securities issued by companies principally engaged in the infrastructure industry have greater exposure to the potential adverse economic, regulatory, political, and other changes affecting such entities. Infrastructure companies are subject risks including increased costs associated with capital construction programs and environmental regulations, surplus capacity, increased competition, availability of fuel at reasonable prices, energy conservation policies, difficulty in raising capital, and increased susceptibility to terrorist acts or political actions.

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