

Wilshire

CalPERS Private Debt Program

2023 Annual Review

June 2024

Overview

- Wilshire conducted an annual program review of CalPERS' private debt program.
- The private debt program has an official inception date of July 1, 2022; however, underlying investments were held in a different program (Opportunistic Strategies) and have a deeper track record.
- As of March 31, 2024, the private debt portfolio consisted of 42 underlying investments totaling approximately \$33.0 billion of commitments with an aggregate market value of approximately \$12.8 billion.
- This review provides insight into performance, implementation, team and policy parameters for the CalPERS private debt portfolio.

Based on underlying information from Wilshire's quarterly report as of March 31, 2024.

Team Assessment

Wilshire’s Assessment of CalPERS’ Private Debt Team

Key Merits	Key Concerns
Continued successful progress on building out the private debt portfolio	Team is considerably under resourced; additional personnel and resources are needed; currently five outstanding hires across the team
Experienced MID and broader senior team	Early success but portfolio remains relatively young
Thoughtful approach with fee/carry savings vis-à-vis co-investment accounts	
Portfolio exposures to date are in line with policy parameters	

- The team is led by talented staff, with the ability to deeply understand the value drivers in the private debt sector. The team has continued to work together cohesively and demonstrate their ability to identify opportunities across multiple sectors, establishing a strong basis for the private debt portfolio.
- Additional resources, on both the personnel and technological fronts, will be critical to sustain the success of the program, especially given the increased long-term target to private debt.

Portfolio Performance

Private Debt Performance as of March 31, 2024

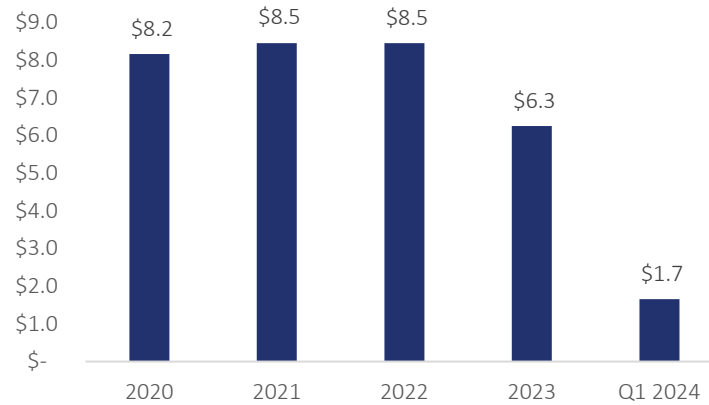
	1-year	FYTD	Since 7/1/20
CalPERS Private Debt Portfolio	14.8%	11.1%	9.5%
Policy Benchmark ¹	14.6%	11.0%	7.6%
Excess vs. Policy Benchmark	18 bps	17 bps	184 bps

- The private debt program has an official inception date of July 1, 2022; however, the underlying investments in the portfolio have a longer track record from inclusion in the Opportunistic Strategies program.
- As of March 31, 2024, and from a time-weighted returns perspective, the private debt program has outperformed the policy benchmark since July 1, 2020.

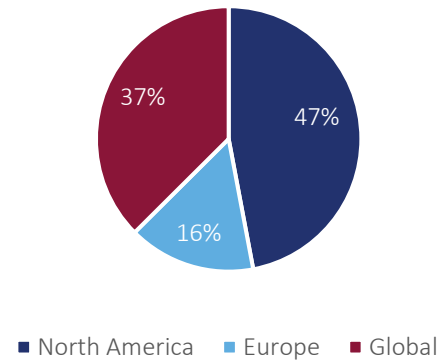
INVO IRP as of March 31, 2024. Time-weighted returns. 1) Benchmark is S&P LSTA US LL 100 Index 1Q Lagged + 125 bps from 7/1/2022 onward and 7% absolute return prior to 7/1/2022.

Portfolio Overview

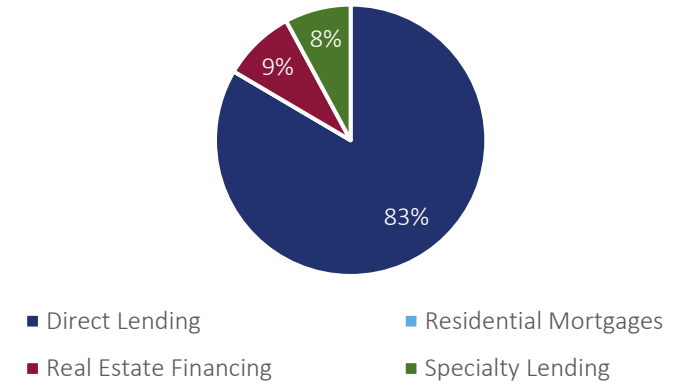
Private Debt Commitments (\$B) by Closing Year*



Private Debt Commitments (\$B) by Geography



Private Debt Commitments (\$B) by Strategy



- As of March 31, 2024, the private debt portfolio NAV was \$12.8 billion, which is 2.6% of CalPERS’ total portfolio.
- The private debt long-term target allocation was increased from 5.0% to 8.0% in March 2024.
- Pacing has been relatively consistent across years with a slight decrease in 2023/Q1 2024.
- Portfolio exposures are diversified geographically and reasonable based on the broader market opportunity set.
- Direct lending makes up most of the portfolio, which is consistent with policy guidelines and expectations.

Based on underlying information from Wilshire’s quarterly report as of March 31, 2024. *Based on year of closing date and not necessarily vintage year.

Strategy & Manager Policies

Private Debt Portfolio – Strategy Policy Ranges

Strategy	Net Asset Value Policy Ranges	Private Debt Portfolio
Direct Lending	20%-100%	85%
Residential Mortgages	0%-40%	0%
Real Estate Financing	0%-40%	6%
Specialty Lending	0%-40%	9%

- Policy ranges are intentionally broad to accommodate the ramp up of the portfolio.
- The private debt portfolio is in line with the current strategy policy ranges.
- Going forward, continue to monitor compliance as recent commitments are deployed and NAV increases.

Private Debt Portfolio – Manager Limitations

Single Manager	Maximum Net Asset Value Allowed
In Any One Private Debt Strategy	20%*
Across All Private Debt Strategies	30%*

**Percentage based on the greater of (i) the Private Debt Allocation (i.e. long-term target to private debt multiplied by total plan assets), or (ii) \$25 billion.*

- Manager limitations implemented since last year’s portfolio review.
- The private debt portfolio is in line with the manager limitations policies.
- Going forward, continue to monitor compliance as recent commitments are deployed and NAV increases.

Based on underlying information from Wilshire’s quarterly report as of March 31, 2024.

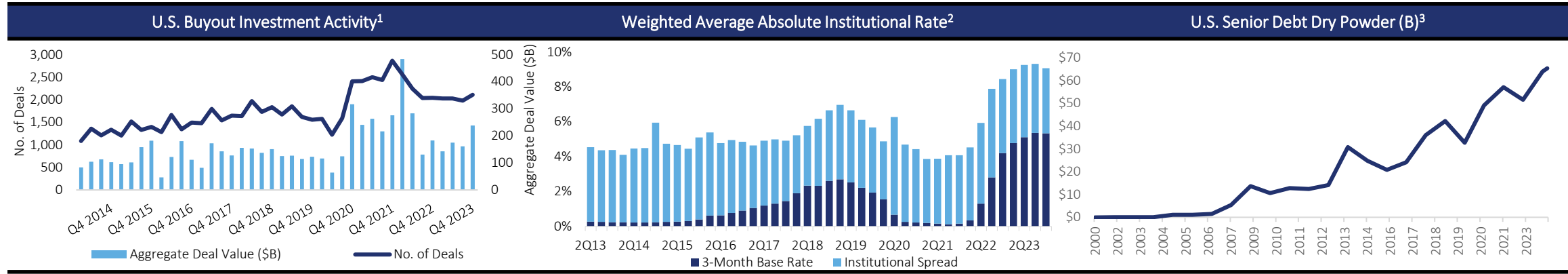
Conclusion

- Overall, the private debt portfolio is early in its development and is performing well; the private debt portfolio has outperformed the policy benchmark since July 1, 2020.
- Strategy and manager exposures are both in line with program policies; continue to monitor as recent commitments are deployed and NAV ramps.
- CalPERS' private debt team has made strong progress on the buildout of the private debt program with the current allocation equal to 2.6% of total plan assets.
- The CalPERS' private debt team is experienced and has created a strong foundation for the private debt portfolio, but the team is considerably under resourced and additional resources are needed for continued success.

Based on underlying information from Wilshire's quarterly report as of March 31, 2024, and INVO IRP as of March 31, 2024.

Appendix: Market Outlook

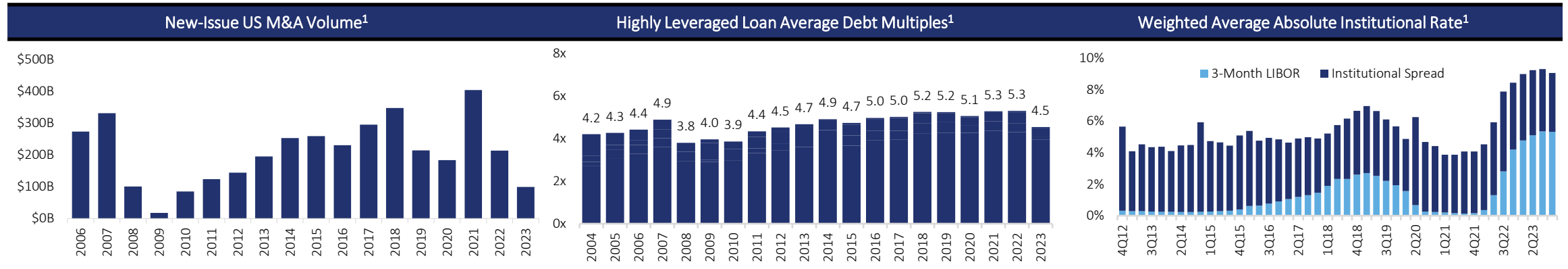
U.S. Senior Direct Lending Outlook: Neutral



Regional Influences	Local Considerations	Industry / Sector Outlook				
<ul style="list-style-type: none"> + Increasing demand for capital given an increase in private equity dry powder and pick-up in deal activity due to more certainty around the trajectory of interest rates ± Heightened yield due to elevated base rates is favorable; however, spread tightening creating less favorable risk/return dynamics ± Uncertain macro-outlook and potential risk of downturn with increasing default rates; however, senior secured position improves probability of recovery - Although fundraising has declined from peak levels in 2021, capital supply remains elevated with private debt dry powder at an all-time high 	<ul style="list-style-type: none"> • Favorable premium for sector and issuer diversification • Large banks entering direct lending and manager consolidation • Fixed versus floating rate debt • Continued upstream movement of traditional middle-market lenders • Importance of structuring and duration on given current macro-outlook 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #1a3d54; color: white;">Sector</th> <th style="background-color: #1a3d54; color: white;">Investment Opportunity</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Senior Direct Lending</td> <td style="text-align: center;"> </td> </tr> </tbody> </table>	Sector	Investment Opportunity	Senior Direct Lending	
Sector	Investment Opportunity					
Senior Direct Lending						

¹ Preqin as of December 31, 2023.
² S&P LCD Q4 2023 Report.
³ Preqin US Senior Debt Dry Powder as of March 26, 2024.

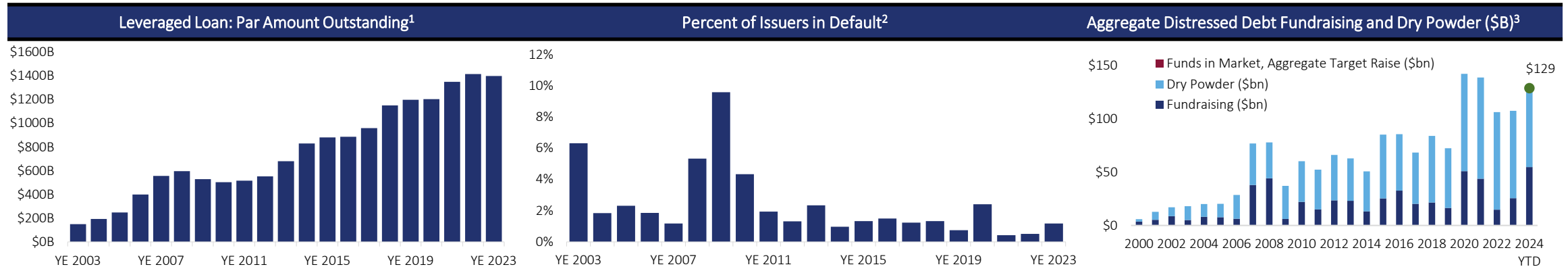
U.S. Opportunistic Credit Outlook: **Highly Favorable**



Regional Influences	Local Considerations	Industry / Sector Outlook				
<ul style="list-style-type: none"> + Fall out from the regional banking crisis resulting in banks unable to extend more asset-based loans + Specialization as prerequisite for traditionally non-banked or otherwise overlooked sectors and assets ± Weakening credit conditions driving demand for creative financing solutions ± Inflationary environment potential headwind for cash interest borrowers unable to adequately service debt - Stressed businesses becoming distressed by underestimating default risk 	<ul style="list-style-type: none"> • Favorable complexity premium for tailored solutions; interest, fees, and upside optionality facilitating multiple return sources • Floating rate debt structures mitigating interest rate sensitivity • Short-duration strategies and high amortization features mitigating interest rate and credit (i.e., repayment) risk • Credit opportunity in commercial real estate as the key source of capital, banks, are facing pressure 	<table border="1"> <thead> <tr> <th>Sector</th> <th>Investment Opportunity</th> </tr> </thead> <tbody> <tr> <td>Opportunistic</td> <td style="text-align: center;">●</td> </tr> </tbody> </table>	Sector	Investment Opportunity	Opportunistic	●
Sector	Investment Opportunity					
Opportunistic	●					

¹ Pitchbook LCD as of Q4 2023.

U.S. Distressed Credit Outlook: Neutral



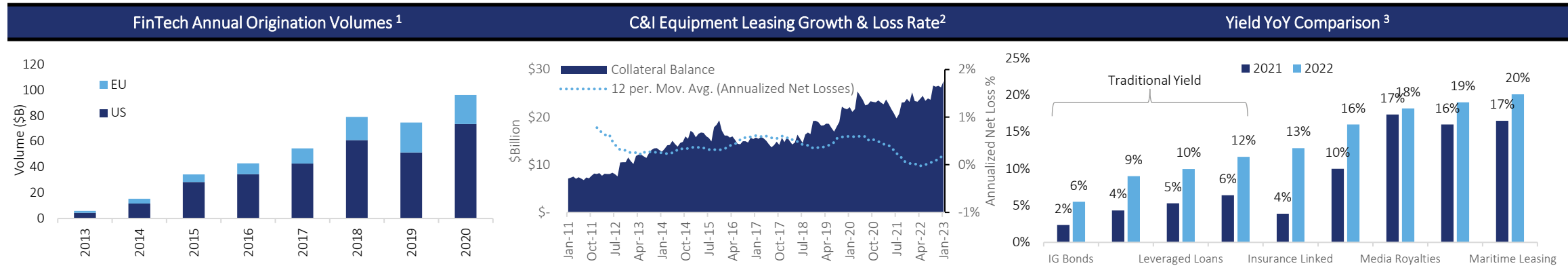
Regional Influences	Local Considerations	Industry / Sector Outlook						
<ul style="list-style-type: none"> + Deterioration in credit metrics both in leveraged loans and across private middle-market companies + High interest rates compared to recent past ± Disconnect between slowly rising default rates, bankruptcy filings and tightening credit spreads ± Substantial levels of illiquid credit since GFC, with little historical precedent from a credit cycle standpoint ± Sensitive to market timing, and thus implementation and fund structure selection are important - Maturity extensions delaying potentially the investable opportunity set - Lower recovery rates compared to historical averages 	<ul style="list-style-type: none"> • Expectation of broad market stress vs sector-specific challenges • Liquid versus illiquid distressed debt opportunities • Distressed trading opportunities versus loan-to-own • Non-performing loan opportunities • Limited data on recovery rates in private credit • Limited tangible assets in healthcare and technology sectors 	<table border="1"> <thead> <tr> <th>Sector</th> <th>Investment Opportunity</th> </tr> </thead> <tbody> <tr> <td>Non-Control Distressed Debt</td> <td>●</td> </tr> <tr> <td>For-Control Distressed Debt</td> <td>●</td> </tr> </tbody> </table>	Sector	Investment Opportunity	Non-Control Distressed Debt	●	For-Control Distressed Debt	●
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For-Control Distressed Debt	●							

¹Morningstar LTSA US Leveraged Loan Index, Pitchbook LCD as of Q4 2023.

²Morningstar LTSA US Leveraged Loan Index, Pitchbook LCD as of Q4 2023.

³Preqin as of February 2024.

U.S. Alternative Yield Outlook: **Highly Favorable**



Regional Influences	Local Considerations	Industry / Sector Outlook										
<ul style="list-style-type: none"> + Correlations across asset classes driving demand for uncorrelated risk/return profiles + Rising interest rates and regulatory pressure leading to more challenging access to traditional capital sources + Inflation, though slowing, impacting corporate profit margins; operational flexibility initiatives supporting commercial & industrial asset leasing (vs buying assets outright) + Favorable supply-demand dynamics driven by low-cost tech-enabled originations, pre-requisite for specialization and higher margins of safety relative to traditional yield ± Historically low loss rates and high recovery rates relative to traditional debt markets 	<ul style="list-style-type: none"> • Intangible asset heavy sectors facing valuation headwinds look to alternative financing solutions linked to their intellectual property (patent, copyright, trademark, etc.) assets • Nontraditional real asset opportunities where both asset and contractual cash flow/monetization mechanism benefit from sustained elevated inflation (beef/cattle farming, water rights, commodity streaming, etc.) • Nondirectionally sensitive financing solutions benefiting from transaction volumes including asset servicing rights and royalty/licensing agreements • Risk transfer in litigation and/or re/insurance markets where risk drivers have little to no sensitivity to public and private capital markets; life-contingent structured settlements, insurance premium finance, life settlements, and IP litigation finance and medical malpractice 	<table border="1"> <thead> <tr> <th>Sector</th> <th>Investment Opportunity</th> </tr> </thead> <tbody> <tr> <td>Niche (Sector) Credit</td> <td>●</td> </tr> <tr> <td>Sp. Asset-Based Lending</td> <td>●</td> </tr> <tr> <td>Risk Transfer Strategies</td> <td>●</td> </tr> <tr> <td>Intangible Assets</td> <td>●</td> </tr> </tbody> </table>	Sector	Investment Opportunity	Niche (Sector) Credit	●	Sp. Asset-Based Lending	●	Risk Transfer Strategies	●	Intangible Assets	●
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¹ 2nd Biannual Global Alternative Finance Benchmarking Report, Cambridge Centre for Alternative Finance, June 2022

² KBRA All Equipment Index

³ Traditional Liquid Opportunities is presented as yield to maturity as at year end 2021 and 2022. Alternative Yields are qualitative forecast assumptions made by Wilshire's Research team over an assumed 5-year horizon. Assumptions are preliminary and are subject to change.

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