

Accessing Infrastructure Debt With DoubleLine

Stephan Diaz Ellinghaus & Phil Gioia, CFA | August 2024

Executive Summary

- Infrastructure debt may offer stable, long-term returns with defensive characteristics and has a demonstrated track record of resilience during recessions and economic downturns, making it an attractive option for investors.
- The asset class's resiliency can be attributed to its idiosyncratic characteristics such as high barriers to entry, inelastic demand, and historically stable and predictable cash flows.
- The sector offers broad diversification with investment opportunities in energy transition, renewable energy generation and digital infrastructure, among others, driven by global trends toward cleaner energy, greater electrification and increased digitization.
- Infrastructure debt is a fast-growing asset class for well-diversified investment portfolios. Traditionally, infrastructure debt is an esoteric asset class and as such is difficult for some investors to access. At DoubleLine, we have developed an infrastructure debt strategy that we believe suits most investors. As an example, we have seen investors use our infrastructure debt strategy to complement credit portfolios with potential for higher risk-adjusted returns.
- Selecting experienced managers with a strong origination platform and global presence is crucial for capitalizing on these opportunities. DoubleLine has managed infrastructure debt strategies since 2016.

There is ample literature about how infrastructure debt as an asset class has a demonstrated track record of resiliency during economic cycles. In our view, this is well captured by S&P in a multidecade study that tracks defaults of infrastructure debt versus nonfinancial corporate debt (Figure 1). During recent periods of economic volatility or downturns, defaults of infrastructure debt remained subdued and steady. Anecdotally, DoubleLine's experience supports this thesis, as our dedicated infrastructure strategies have never experienced a default.

Trailing-12 Month Default Rates: All Infrastructure and Nonfinancial Corporates
January 1999 through December 2022

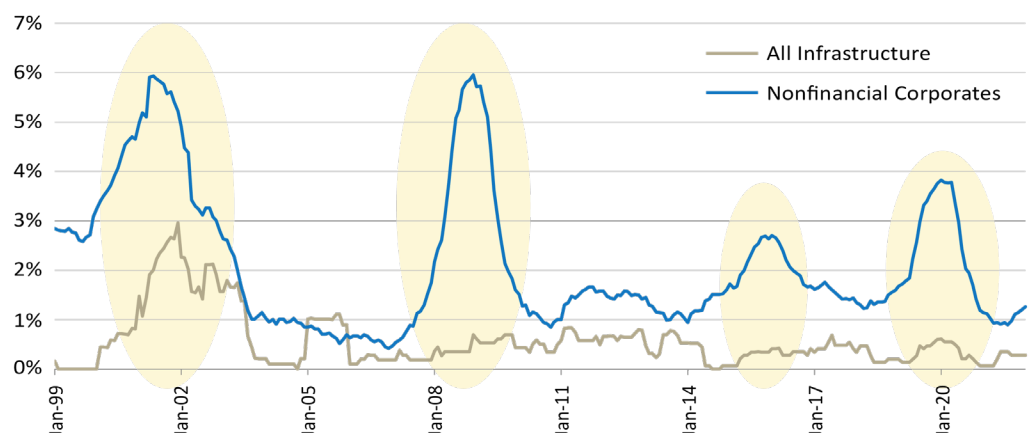


Figure 1
Source: S&P Global Ratings Credit Research & Insights

Accessing Infrastructure Debt With DoubleLine

Stephan Diaz Ellinghaus & Phil Gioia, CFA | August 2024

We attribute this stability to infrastructure debt’s idiosyncratic characteristics that make the asset class, in our opinion, a good candidate for investment portfolios. Among those attributes is that infrastructure assets tend to be essential, even indispensable, for communities and therefore benefit from inelastic demand. In addition, infrastructure debt offers broad diversification, from renewable power generation to fiber networks and data centers, among others. Notably, studies indicate that infrastructure debt performance has low correlation to other fixed income products.¹ Structurally, infrastructure debt is often secured by tangible assets, which we believe is the driver for higher recovery rates.² Infrastructure debt may offer both investment grade and high yield opportunities, and it has the potential to offer excess spreads for private debt.

Infrastructure Attributes

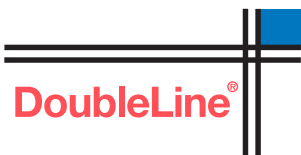
- | | | | |
|---|--|--|---|
|  |  |  |  |
| <p>1 HIGH BARRIERS OF ENTRY
High initial capex outlays, concession awards and/or regulatory constraints limit competition.</p> | <p>2 INELASTIC DEMAND
Users tend to have limited options in many infrastructure sectors, resulting in relatively stable demand during economic cycles.</p> | <p>3 IMPLICIT INFLATION PROTECTION
Operators have the ability to pass on higher costs to users (e.g., regulated utilities, toll roads), and, in some cases, revenues and costs are supported by fixed or inflation-linked prices.</p> | <p>4 INVESTMENT LONGEVITY
Once an infrastructure asset is commissioned and operating, it generally has a life expectancy of 25 years or more.</p> |
|  |  |  |  |
| <p>5 HISTORICALLY STABLE & PREDICTABLE CASH FLOWS
Many projects can potentially achieve stable cash flows via long-term contracts (for revenue and/or expenses) or regulated rate protections.</p> | <p>6 LOW CORRELATION TO OTHER ASSET CLASSES
Given the essential nature of infrastructure assets and services, they tend to be less correlated to economic cycles.</p> | <p>7 ESSENTIAL SERVICES FOR SOCIETY
Many infrastructure projects are critical for the economic activity of a community and in forming the backbone of the economy.</p> | <p>8 HISTORICALLY LOW DEFAULT RATES & HIGH RECOVERY
Studies show that infrastructure assets are historically more resilient to economic cycles than other asset classes.</p> |

Given these investor-friendly attributes, it is not surprising that the appeal of the asset class is growing. Preqin, a market leader in private-market investment data, expects infrastructure debt to continue to be one of the fastest-growing alternative asset classes. Between 2015 and 2023, infrastructure debt assets under management (AUM) compound annual growth was 20%, and total AUM was more than \$1 trillion.³

Despite the rapid growth and adoption, infrastructure debt for some investors remains a difficult to access niche and esoteric sector. We believe that one of the reasons this is the case is that most ways to access infrastructure debt is via illiquid vehicles with lockup periods that tie up investors’ money for several years.

DoubleLine understands that this might be undesirable for some investors, and that is why we developed a unique, liquid infrastructure strategy that has demonstrated a strong track record over eight years. In addition, since infrastructure is a niche sector, we focus on providing clarity and transparency via steady communication with our clients. With our solutions (from liquid to less liquid) plus open and steady communication, we aim to provide our clients the tools to access this desirable asset class with idiosyncratic attributes that we believe enhance any investment portfolio.

Our strategy targets infrastructure debt but approaches it via multiple products, which allows for maximum flexibility and helps identify the best possible relative value while benefiting from the underlying infrastructure assets’ features.

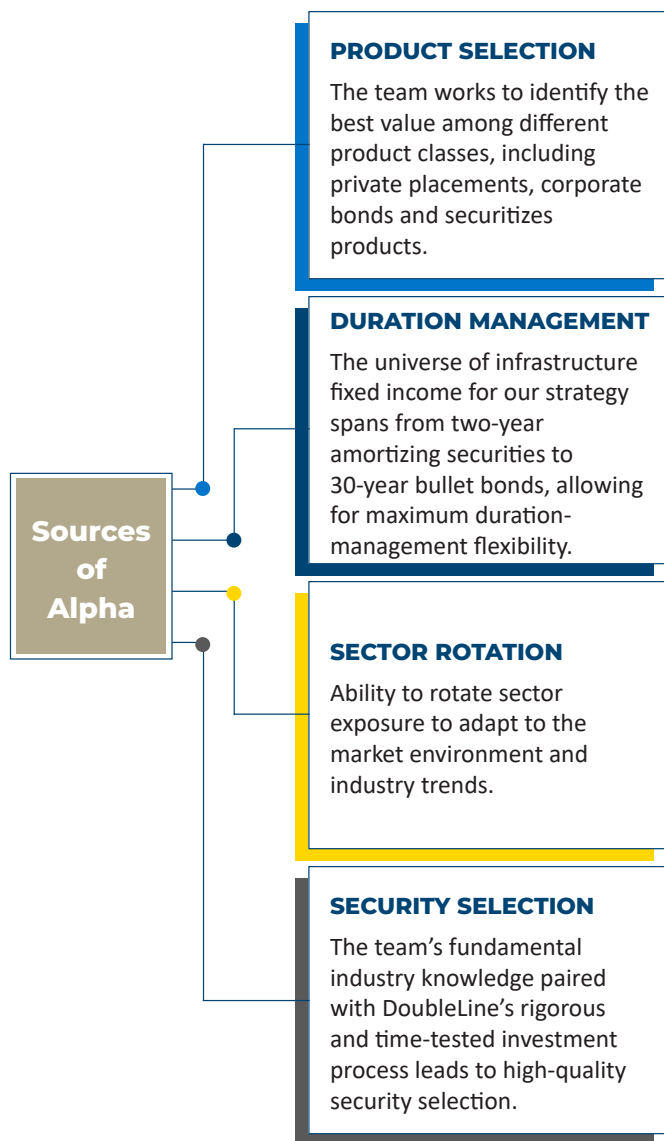


Accessing Infrastructure Debt With DoubleLine

Stephan Diaz Ellinghaus & Phil Gioia, CFA | August 2024

DoubleLine’s Approach to Infrastructure

DoubleLine’s Infrastructure Income strategy benefits from multiple sources to potentially generate alpha through different market environments.



This approach has contributed to strong absolute and risk-adjusted returns compared to corporate credit indices. Going forward, we expect Infrastructure Income to potentially exhibit lower volatility than corporate credit, with the potential for higher returns given the current yield profile. (Figure 2)

DoubleLine Infrastructure Strategy vs. Other Indices May 2016 through June 2024

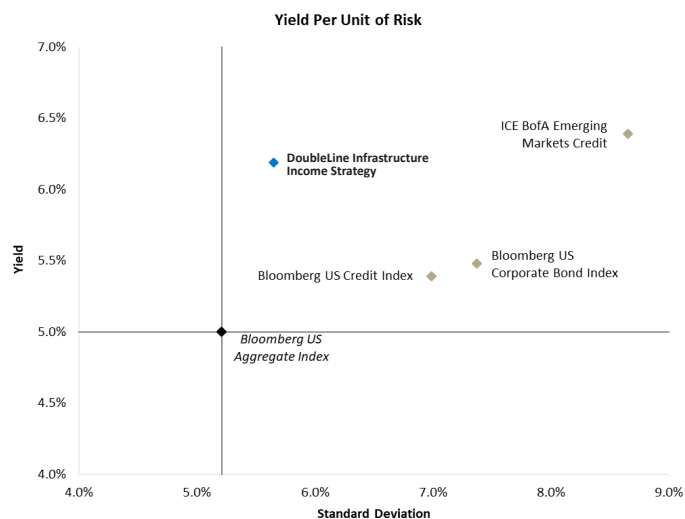


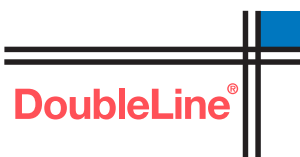
Figure 2
Source: DoubleLine, Bloomberg, Zephyr StyleAdvisor
Please see index definitions at end of document. DoubleLine views yield-to-maturity as a characteristic of a portfolio of holdings often used, along with other risk measures such as duration and spread, to determine the relative attractiveness of an investment. Please see Important Information Regarding This Material at the end of this presentation.

Experienced Investment Team and Active Portfolio Management

Combining experienced managers with rigorous underwriting standards, a strong origination platform and global presence is crucial for capitalizing on these opportunities. Led by Portfolio Managers Andrew Hsu, Damien Contes and Infrastructure Specialist Stephan Diaz Ellinghaus, DoubleLine’s Infrastructure Income strategy benefits from an investment team with an average of more than 18 years of industry experience. The team’s emphasis on a value-oriented research process, which combines bottom-up fundamental analysis with DoubleLine’s top-down macroeconomic views, guides the strategy.

Conclusion

With an uncertain economic outlook, DoubleLine believes the infrastructure debt sector provides a compelling portfolio solution due in part to its defensive features that do not sacrifice total return potential. The DoubleLine Infrastructure Income strategy offers investors a opportunity to access the potential benefits of infrastructure debt investment. ■



Accessing Infrastructure Debt With DoubleLine

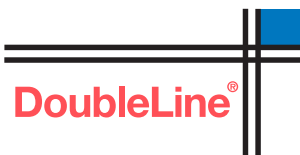
Stephan Diaz Ellinghaus & Phil Gioia, CFA | August 2024

DoubleLine Infrastructure Income Composite

GIPS Composite Report | April 2, 2016 to December 31, 2023

Year	Composite Gross Return (%)	Composite Net Return (%)	Bloomberg US Aggregate Bond Index Return (%)	Composite 3-Yr St Dev (%)	Bloomberg US Aggregate Bond Index 3-Yr St Dev (%)	Number of Portfolios	Internal Dispersion (%)	Composite Assets (\$M)	Firm Assets (\$M)
2016	1.75	1.38	-0.33	N/A	N/A	1	N/A	127	100,540
2017	6.38	5.85	3.54	N/A	N/A	1	N/A	546	117,429
2018	0.97	0.46	0.01	N/A	N/A	1	N/A	521	119,510
2019	8.90	8.36	8.72	2.13	2.87	1	N/A	553	147,985
2020	6.07	5.54	7.51	6.76	3.36	1	N/A	601	135,069
2021	0.70	0.20	-1.54	6.77	3.35	1	N/A	571	133,092
2022	-11.03	-11.48	-13.01	7.72	5.77	1	N/A	373	91,579
2023	9.49	8.95	5.53	5.68	7.14	1	N/A	365	93,917

- DoubleLine claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS Standards. DoubleLine has been independently verified for the periods January 1, 2010 through December 31, 2023. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Infrastructure Income Composite has been examined for the periods April 2, 2016 through December 31, 2023. The verification and performance examination reports are available upon request.
- For the purpose of complying with the GIPS standards, DoubleLine ("the Firm") consists of the assets under management of DoubleLine Capital LP ("DoubleLine Capital"), DoubleLine Alternatives LP ("DoubleLine Alternatives", formerly known as DoubleLine Commodity LP) and DoubleLine ETF Adviser LP ("DoubleLine ETF Adviser"). Defining the Firm in this manner for GIPS purposes is not intended to imply any legal affiliation among DoubleLine Capital, DoubleLine Alternatives and DoubleLine ETF Adviser. Effective January 1, 2017, the Firm was redefined to include assets of DoubleLine Equity LP (which closed as of October 4, 2022) and DoubleLine Alternatives LP. Effective March 31, 2022, the Firm was redefined to include assets of DoubleLine ETF Adviser LP.
- As of March 31, 2022, the Firm was redefined to reflect an expansion of products within organization.
- Results are for accounts present for an entire month. The Composite includes all master accounts as stated in the description below, except for accounts subject to material client restrictions and deemed non-discretionary. When a new composite is formed, the first account is included as of the account's inception date.
- A list of composite descriptions, pooled fund descriptions for limited distribution pooled funds and a list of broad distribution pooled funds is available upon request.
- The internal dispersion of annual returns is measured by the standard deviation across equally-weighted portfolio returns represented within the Composite for the full year and is calculated using gross returns. For those periods where less than six (6) accounts are in the Composite for the full year, or where the period is less than a full year, standard deviation is not presented.
- Performance is reported in U.S. dollars and reflects the reinvestment of dividends and other earnings.
- Gross returns do not reflect the deduction of management fees, custodial fees and other administrative expenses. Including these costs would reduce the returns shown. Net returns reflect the deduction of model management fees. The model fee is equal to or higher than the standard management fee charged to U.S. institutional clients without considering any applicable breakpoints. Certain clients could pay a significantly higher or lower fee which would result in different net returns. By way of example a fee which is 0.5% higher than the standard U.S. institutional fee will result in the total return being reduced, over five years, by 2.53% on a compound basis. Net returns do not include the deduction of custodial fees or other administrative expenses, which will also reduce the returns shown.
- DoubleLine makes no representation that future investment performance will conform to past performance. Past performance is no guarantee of future results. It is possible to lose money when investing in this strategy.
- Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.
- This Composite was created on April 1, 2016.
- The Composite includes accounts that are managed to seek current income and total return by investing in global infrastructure related debt. Infrastructure related debt includes assets or projects that support the operation, function, growth or development of a community or economy.
- The Bloomberg U.S. Aggregate Bond Index represents securities that are SEC registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. You cannot invest directly in an index. Benchmark returns are not covered by the report of independent verifiers.
- The U.S. institutional fee schedule is as follows: 0.50% on all assets under management in this strategy.
- Leverage or derivatives are not used in the management of the accounts in this Composite.
- Three year annualized ex-post standard deviation of the Composite measures the variability of the Composite and the benchmark returns over the preceding 36-month period and is calculated using gross returns. The three-year annualized ex-post standard deviation of the Composite and the benchmark are not presented when 36 monthly returns have not yet been generated by this Composite.
- Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. The Firm's fees are available on request and may be found in Part 2A of Form ADV.
- GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.



Accessing Infrastructure Debt With DoubleLine

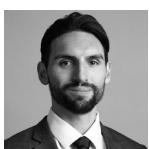
Stephan Diaz Ellinghaus & Phil Gioia, CFA | August 2024

About the Authors



Stephan Diaz Ellinghaus
Specialist, Structured Products - ABS/Infrastructure

Mr. Diaz joined DoubleLine in 2021 as a Specialist on the Global Infrastructure Investments/Asset-Backed Securities team. He is also part of DoubleLine's ESG Investment Task Force, responsible for the ESG integration framework for the Global Infrastructure Investments/Asset-Backed Securities group. Prior to DoubleLine, Mr. Diaz was with Nomura Securities International as an Executive Director. Previous to that, he was with Norddeutsche Landesbank Girozentrale as a Director. Mr. Diaz holds a B.A. in Economics from Instituto Tecnológico Autonomo De Mexico and an MBA in Business Administration from New York University.



Phil Gioia, CFA
Product Specialist

Mr. Gioia joined DoubleLine in 2018. He is a member of the Investor Services team, in which he serves as a Product Specialist. In this capacity, Mr. Gioia is responsible for various aspects of DoubleLine product marketing, investment strategy updates, portfolio communications and competitive analysis, with a focus on DoubleLine's Securitized Product strategies. He is also responsible for producing market commentary and dedicated strategy content. Prior to DoubleLine, Mr. Gioia was an Investment Product Manager for Fidelity Investments. He holds a B.S. in Financial Management and Business Administration with a minor in Accounting from Salve Regina University and earned a certification for the Applied Data Science Program from Massachusetts Institute of Technology. Mr. Gioia is a CFA® charterholder and holds the FINRA Series 7 and 63 Licenses.

Endnotes

- ¹ Source: EDHEC, Strategic Asset Allocation With Unlisted Infrastructure; February 2021
- ² Source: Moody's
- ³ Source: EDHEC, Strategic Asset Allocation With Unlisted Infrastructure; February 2021

Alpha – Term used in investing to describe a strategy's ability to beat the market, or its "edge." Alpha is thus also often referred to as "excess return" or "abnormal rate of return," which refers to the idea that markets are efficient, and so there is no way to systematically earn returns that exceed the broad market as a whole.

Bloomberg US Aggregate Bond Index – This index (the "Agg") represents securities that are SEC registered, taxable and dollar denominated. It covers the U.S. investment grade, fixed-rate bond market, with components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indexes that are calculated and reported on a regular basis.

Bloomberg US Corporate Bond Index – This index measures the investment grade, fixed-rate taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg US Credit Index – This index tracks the U.S. credit component of the Bloomberg US Government/Credit Index on a total return basis. It consists of publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity and quality requirements. To qualify, bonds must be SEC registered. The US Credit Index is the same as the former US Corporate Index.

Capital Expenditures (Capex) – Funds used by a company to acquire, upgrade and maintain physical assets such as property, plants, buildings, technology or equipment. Capex is often used to undertake new projects or investments by a company, commonly with the goal of increasing the scope of or adding some economic benefit to operations.

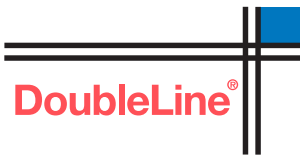
Duration – Measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates.

High Yield (HY) – Bonds that pay higher interest rates because they have lower credit ratings than investment grade (IG) bonds. HY bonds are more likely to default, so they must pay a higher yield than IG bonds to compensate investors.

ICE BofA Emerging Markets Corporate Plus Index – This index tracks the performance of U.S. dollar- and euro-denominated emerging markets nonsovereign debt publicly issued in the major domestic and eurobond markets.

Investment Grade (IG) – Rating that signifies a municipal or corporate bond presents a relatively low risk of default. Bonds below this designation are considered to have a high risk of default and are commonly referred to as high yield (HY) or "junk bonds." The higher the bond rating the more likely the bond will return 100 cents on the U.S. dollar.

It is not possible to invest directly in an index.



Accessing Infrastructure Debt With DoubleLine

Stephan Diaz Ellinghaus & Phil Gioia, CFA | August 2024

Important Information Regarding This Material

Issue selection processes and tools illustrated throughout this presentation are samples and may be modified periodically. These are not the only tools used by the investment teams, are extremely sophisticated, may not always produce the intended results and are not intended for use by non-professionals.

Yield to maturity (YTM) does not represent return. YTM provides a summary measurement of an investment's cash flows, including principal received at maturity based on a given price. Actual yields may fluctuate due to a number of factors such as the holding period, changes in reinvestment rates as cash flows are received and redeployed, receipt of timely income and principal payments. DoubleLine views YTM as a characteristic of a portfolio of holdings often used, along with other risk measures such as duration and spread, to determine the relative attractiveness of an investment.

DoubleLine has no obligation to provide revised assessments in the event of changed circumstances. While we have gathered this information from sources believed to be reliable, DoubleLine cannot guarantee the accuracy of the information provided. Securities discussed are not recommendations and are presented as examples of issue selection or portfolio management processes. They have been picked for comparison or illustration purposes only. No security presented within is either offered for sale or purchase. DoubleLine reserves the right to change its investment perspective and outlook without notice as market conditions dictate or as additional information becomes available. This material may include statements that constitute "forward-looking statements" under the U.S. securities laws. Forward-looking statements include, among other things, projections, estimates, and information about possible or future results related to a client's account, or market or regulatory developments.

Important Information Regarding Risk Factors

Investment strategies may not achieve the desired results due to implementation lag, other timing factors, portfolio management decision-making, economic or market conditions or other unanticipated factors. The views and forecasts expressed in this material are as of the date indicated, are subject to change without notice, may not come to pass and do not represent a recommendation or offer of any particular security, strategy, or investment. All investments involve risks. Please request a copy of DoubleLine's Form ADV Part 2A to review the material risks involved in DoubleLine's strategies. Past performance is no guarantee of future results.

Important Information Regarding DoubleLine

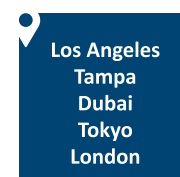
To receive a copy of DoubleLine's current Form ADV (which contains important additional disclosure information, including risk disclosures), please contact DoubleLine's Client Services or visit our website at DoubleLine.com.

CFA® is a registered trademark owned by CFA Institute.

DoubleLine Group is not an investment adviser registered with the Securities and Exchange Commission (SEC).

DoubleLine® is a registered trademark of DoubleLine Capital LP.

© 2024 DoubleLine Capital LP



 (813) 791-7333

 DoubleLine.com

 @DLineCap

 [DoubleLine-Capital](https://www.linkedin.com/company/doubleline-capital)