Creating an All-Weather Portfolio by Investing in Infrastructure Debt

Stephan Diaz Ellinghaus & Colin Callahan | October 2023

Executive Summary

- *Infrastructure debt has a demonstrated track record of resilience during recessions and economic downturns, and has provided investors with lower volatility and better recovery rates than similarly rated corporate bonds.*
- *In part because of its defensive features, infrastructure debt is an important and growing asset class for well-diversified investment portfolios.*
- *Traditionally, infrastructure debt has been considered an esoteric asset class specifically earmarked to institutional investors. However, DoubleLine bridges this gap with a unique solution for retail investors: the DoubleLine Infrastructure Income Fund.*
- *The Fund has a strong track record since inception with performance that compares favorably to its peer group.*

Infrastructure debt is a unique fixed-income sector that can provide investors with diversification benefits, relative value opportunities and attractive credit profiles, making it a compelling asset to include in a well-diversified all-weather investment portfolio. Infrastructure debt is backed by tangible assets that provide essential services to society, including traditional infrastructure such as roads, airports and utilities, and modern infrastructure such as data services and energy transition projects. Infrastructure assets and services are largely indispensable to communities and tend to benefit from stable demand, which, in contrast to corporate earnings, leads to predictable cash flows irrespective of economic cycles. This resilience is not only intuitive, but data supports the thesis of infrastructure as a relatively stable asset class. For instance, S&P Global shows that default rates of infrastructure debt are lower than those of corporate debt going back nearly 25 years.[1] *(Figure 1)*

Trailing-12 Month Default Rates: All Infrastructure and Nonfinancial Corporates

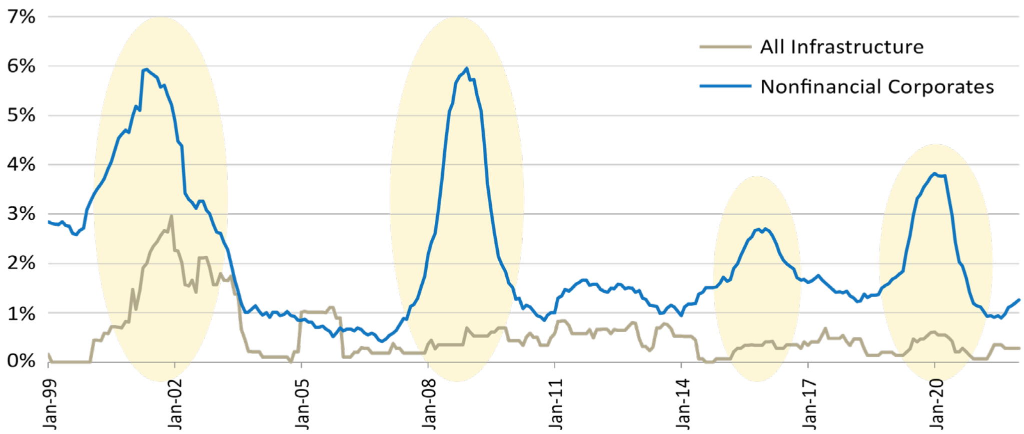

Figure 1
Source: S&P Global Ratings Credit Research & Insights. January 1999 through January 2021.

There are two key takeaways from Figure 1.

1| Infrastructure default rates are, with few exceptions, lower than corporate default rates regardless of the economic environment.

2| We observe meaningful volatility in corporate default rates, which is not the case for infrastructure debt.

Creating an All-Weather Portfolio by Investing in Infrastructure Debt

October 2023

Comparatively, with lower absolute default rates and sensitivity to business cycles than nonfinancial corporate debt, we see infrastructure debt as both a diversifier and defensive asset class for investment portfolios. Infrastructure debt performance during the COVID-19 recession further supports the sector's resiliency. That recession caused severe and unprecedented stress on infrastructure assets such as transportation (empty airports and roads) and logistics (low demand for ports, rail, containers). Nevertheless, infrastructure assets were resilient, and defaults remained low.

Moreover, when defaults have occurred, both secured and unsecured infrastructure debt has historically exhibited substantially higher recovery rates than similarly rated corporate debt largely due to the sector's resilient features, as infrastructure assets typically provide essential services and can exhibit monopolistic characteristics. *(Figure 2)* We believe this favorable combination of lower default rates and higher recovery rates offers a double layer of defensive features.

Infrastructure & Corporate Debt Recovery Rates | 1983 - 2021

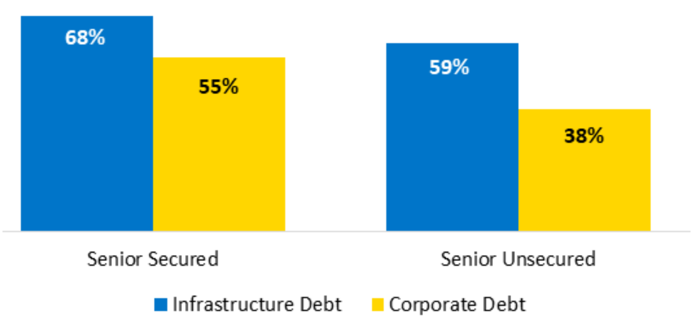

Figure 2
Source: DoubleLine, Moody's

DoubleLine provides investors, including retail investors, access to infrastructure debt along with its favorable inherent features: While infrastructure debt is an important and growing asset class for investment portfolios, it is generally considered esoteric or alternative and has traditionally only been available to institutional investors. Given its attributes, it is not surprising that the appeal of the asset class has been growing. Flows into infrastructure debt are consistently rising annually, topping $1 trillion in the first quarter of 2022. Preqin, a market leader in private-market investment data, expects infrastructure debt to be one of the fastest-growing alternative asset classes.[2]

Frustratingly, it has been difficult for retail investors to access the asset class and benefit from its attributes. However, DoubleLine offers a solution: a unique infrastructure debt mutual fund, the **DoubleLine Infrastructure Income Fund (BILDX/BILTX)**, which features the following benefits:

Access to Infrastructure Debt's Defensive Characteristics

The foundational benefit of the asset class resides in the fact that infrastructure has been indispensable and therefore has historically produced stable cash flows, low defaults, low correlation to business cycles and high recovery rates. The Fund predominantly invests in fixed income securities rated investment grade (IG). Since the Fund's inception in April 2016, the portfolio has experienced zero defaults, which is both a testament to the resilience of the asset class and the portfolio management team's rigorous due-diligence process and experience.

Offers Investors the Potential to Produce Attractive Yields

Year-to-date as of October 31, 2023, BILDX's yield exceeded that of U.S. IG corporate bonds by 100 basis points (bps) and the Fund's benchmark, the Bloomberg US Aggregate Bond Index, by over 150 bps despite historical data suggesting that the underlying infrastructure issuers are more resilient than corporate peers. *(Figure 3)*

Fixed Income Yield Range | April 2016 to October 31, 2023

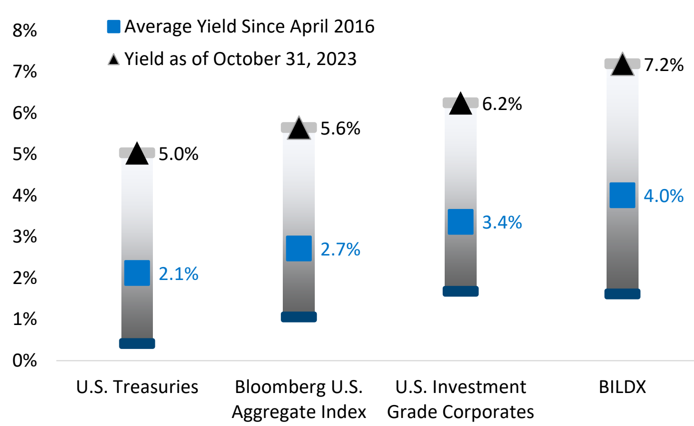

Figure 3
Source: DoubleLine

The SEC 30-Day yield for the DoubleLine Infrastructure Income Fund I Share as of October 31, 2023 was 5.11% gross and 5.11% net.

U.S. Treasuries represented by the Bloomberg US Treasury Total Return Index. U.S. Investment Grade Corporates represented by the Bloomberg US Credit Total Return Index.

Creating an All-Weather Portfolio by Investing in Infrastructure Debt

October 2023

Peer group analysis further supports the Fund's strong performance history. Looking back at the Fund's performance versus its peers within the Morningstar Intermediate Core category,[3] the Fund has largely produced top-quintile returns (and it is among the top 1% year-to-date).[4] *(Figure 4)*

BILDX Performance vs. Peers Within the Morningstar Intermediate Core Category | As of October 31, 2023

	2017 529 mgrs	2018 538 mgrs	2019 559 mgrs	2020 562 mgrs	2021 575 mgrs	2022 609 mgrs	2023 476 mgrs
Percentile Rank	9	14	73	86	17	12	1
Quartile Rank (Morningstar)	1st	1st	3rd	4th	1st	1st	1st

Morningstar Intermediate Core Category Ranking
As of October 31, 2023

	One Year 475 mgrs	Three Years 443 mgrs	Five Years 422 mgrs	Since Inception 385 mgrs
Percentile Rank	1	2	4	2
Quartile Rank (Morningstar)	1st	1st	1st	1st

Figure 4
Source: Morningstar, DoubleLine
Inception date for the category ranking table is May 2016.

Attractive Risk-Adjusted Returns

Since inception, the Fund has produced a higher Sharpe ratio, a risk-return metric, than 98% of peers (outperforming 378 of 385 Fund managers). *(Figure 5)*

Sharpe Ratio Percentile Rank:
Manager vs. Morningstar Intermediate Core Category
May 2016 Through October 2023

	Three Years 443 Managers	Five Years 422 Managers	Since Inception* 385 Managers
DoubleLine Infrastructure Income Fund (I Share)	3	2	2
Bloomberg US Aggregate Bond Index	53	44	51

Figure 5
Source: Zephyr, DoubleLine
*Inception date of the DoubleLine Infrastructure Income Fund was April 1, 2016.

*A **Sharpe Ratio** is used to help investors understand the return of an investment compared to its risk. The ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. **Volatility** is a measure of the price fluctuations of an asset or portfolio. Subtracting the risk-free rate from the mean return allows an investor to better isolate the profits associated with risk-taking activities. The risk-free rate of return is the return on an investment with zero risk. Generally speaking, a Sharpe ratio between 1 and 2 is considered good. A ratio between 2 and 3 is very good, and any result higher than 3 is excellent.*

DoubleLine Infrastructure Income Fund Performance

Quarter-End Returns September 30, 2023 (%)	One Month	Third Quarter 2023	Year-to-Date	One Year	Three Years	Five Years	Since Inception (4/1/16)	Gross Expense Ratio
I Share (BILDX)	-1.37	-0.87	2.47	4.02	-2.49	0.92	1.46	0.57
N Share (BILTX)	-1.27	-0.93	2.28	3.75	-2.73	0.69	1.21	0.82
Bloomberg US Aggregate Bond Index	-2.54	-3.23	-1.21	0.64	-5.21	0.10	0.27	

The performance information shown assumes the reinvestment of all dividends and distributions.
Returns for periods greater than one year are annualized.

Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than the original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance current to the most recent month-end may be obtained by calling (213) 633-8200 or by visiting DoubleLine.com.

Creating an All-Weather Portfolio by Investing in Infrastructure Debt

October 2023

Attractive Risk-Adjusted Returns (cont'd)

Furthermore, the Fund has historically exhibited almost double the yield per unit of duration compared to that of its benchmark and corporate bonds. *(Figure 6)* Higher yields can increase a Fund's potential total return and provide a cushion against price declines. The Fund's combination of higher yield and lower duration than its benchmark provides investors with a compelling solution.

Yield per Unit of Duration Historical Comparison

April 30, 2016 through October 31, 2023

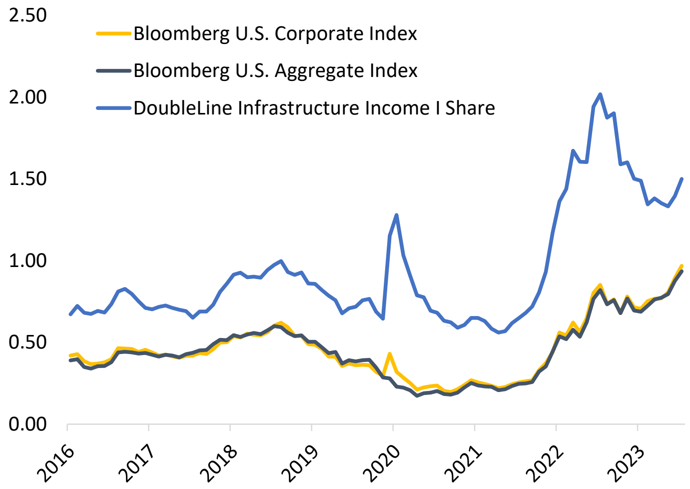

Figure 6

Source: Bloomberg, DoubleLine

Experienced Investment Team and Active Portfolio Management

Led by portfolio managers Andrew Hsu, Damien Contes and infrastructure specialist Stephan Diaz Ellinghaus, BILDX benefits from an investment team with an average of over 17 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 view, helps guide the Fund.

Conclusion

With the rising probability of a recession, DoubleLine believes the infrastructure debt sector provides a compelling portfolio solution thanks to its defensive features without sacrificing total return potential. The DoubleLine Infrastructure Income Fund offers a unique vehicle for retail investors to access an asset class that has historically been reserved for institutions. The Fund has a strong track record that we believe is attributable to our team of experienced investment professionals, active portfolio management and DoubleLine's thought leadership. ■

About the Authors

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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 Landesbanak Girozentrale as a Director. Mr. Diaz holds a B.A. in Economics from Instituto Tecnologico Autonomo De Mexico and an MBA in Business Administration from New York University.

Colin Callahan
Product Specialist

Mr. Callahan joined DoubleLine in 2018. He is a member of the Product Specialist Team. In this capacity, he is responsible for various aspects of DoubleLine product marketing, investment strategy updates, portfolio communications and competitive analysis, with a focus on DoubleLine's Global Developed Credit strategies. Mr. Callahan is also responsible for producing market commentary and dedicated strategy content. As part of the Product Specialist team he attends the Fixed Income Asset Allocation, Macro Asset Allocation, Global Developed Credit, and Structured Product meetings. Prior to DoubleLine, Mr. Callahan was an Assistant Vice President at Gabelli Funds. He holds a BS in Finance from Fairfield University cum laude and an MBA in Finance from the UCLA Anderson School of Management. Mr. Callahan also holds the Series 7 and 63 Licenses.

Endnotes

1 "Default, Transition and Recovery: 2021 Annual Infrastructure Default and Rating Transition Study," S&P Global, Dec. 19, 2022. www.spglobal.com/ratings/en/research/articles/221219-default-transition-and-recovery-2021-annual-infrastructure-default-and-rating-transition-study-12576939

2 "Post-pandemic, the fundamentals have shifted …," Preqin, Dec. 14, 2022. www.preqin.com/insights/global-reports/2023-infrastructure

3 This category primarily comprises IG U.S. fixed-income portfolios including mutual funds and ETFs. Morningstar defines the category as: Intermediate-term, core bond portfolios invest primarily in IG U.S. fixed-income issues including government, corporate and securitized debt but generally have greater flexibility than core offerings to hold noncore sectors such as corporate high yield, bank loan, emerging markets debt and non-U.S. currency exposures. Their durations (a measure of interest-rate sensitivity) typically range between 75% and 125% of the three-year average of the effective duration of the Morningstar Core Bond Index.

4 www.morningstar.com/funds/xnas/bildx/quote

Definitions of Terms and Index Description

Basis Points (bps) – Basis points (or basis point (bp)) refer to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01% or 0.0001, and is used to denote the percentage change in a financial instrument. The relationship between percentage changes and basis points can be summarized as: 1% change = 100 basis points; 0.01% = 1 basis point.

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 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.

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 Treasury Index – This index measures on a total return basis U.S. dollar-denominated, fixed-rate nominal debt issued by the U.S. Treasury with a remaining maturity of one year or more. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

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.

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.

Creating an All-Weather Portfolio by Investing in Infrastructure Debt

October 2023

DoubleLine Infrastructure Income Fund Disclosure

Mutual fund investing involves risk; Principal loss is possible.

Investments in debt securities typically decrease when interest rates rise. This risk is usually greater for longer-term debt securities. Investments in lower-rated and non-rated securities present a great risk of loss to principal and interest than higher rated securities. Investments in asset-backed and mortgage-backed securities include additional risks that investors should be aware of including credit risk, prepayment risk, possible illiquidity and default, as well as increased susceptibility to adverse economic developments. Investments in foreign securities involve political, economic, and currency risks, greater volatility, and differences in accounting methods. These risks are greater for investments in emerging markets. The Infrastructure Income Fund may use certain types of investment derivatives. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. The Fund may use leverage which may cause the effect of an increase or decrease in the value of the portfolio securities to be magnified and the Fund to be more volatile than if leverage was not used. The value of the Fund's infrastructure investments may be entirely dependent upon the successful development, construction, maintenance, renovation, enhancement or operation of infrastructure-related projects. Accordingly, the Fund has significant exposure to adverse economic, regulatory, political, legal, demographic, environmental, and other developments affecting the success of the infrastructure investments in which it directly or indirectly invests. The Fund is non-diversified meaning it may concentrate its assets in fewer individual holdings than a diversified fund.

Infrastructure Debt, Corporate Bonds, and other investment products have different risk-return profiles, which should be considered when investing. All investments contain risk and may lose value.

Diversification does not assure a profit, not does it protect against a loss in a declining market.

Past performance does not guarantee future results.

Morningstar Disclosure

Morningstar rankings are based on a fund's average annual total return relative to all funds in the same Morningstar category. Fund performance used within the rankings, reflects certain fee waivers, without which, returns and Morningstar rankings would have been lower. The highest (or most favorable) percentile rank is 1 and the lowest (or least favorable) percentile rank is 100.

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