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WHITEPAPER

# Unlevered Infrastructure Equity: Delivering in CDI

Going beyond private debt for stable and predictable cashflows

For today's investor

*"High-quality unlevered infrastructure equity has the potential to deliver exactly what cashflow-driven investors – such as pension schemes – are seeking: low-risk, index-linked cash flows that are suitable for liability matching."*

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Investment Strategist



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## Introduction

**Cashflow-driven investing (CDI) generates predictable, attractive cash flows to meet liabilities when they fall due. Although a wide range of reliable, income generating assets can be included within a CDI strategy, discussions about which alternative asset classes to include are often limited to private debt, particularly infrastructure and real estate financing. At a stretch, some investors might also consider long income real estate, but unlevered infrastructure equity (i.e. assets acquired without leverage or third party borrowing at the asset level) is almost always ignored – and unfairly so.**

We say 'unfairly' because high-quality unlevered infrastructure equity has the potential to deliver exactly what cashflow-driven investors – such as pension schemes – are seeking: low-risk, index-linked cash flows that are suitable for liability matching.

| Predictable cashflow profile | Attractive returns potential | Diversification | Downside protection | Illiquidity premia | Inflation-linkage |
|---|---|---|---|---|---|
| ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

## Delivering in CDI

Infrastructure assets provide essential services. As the need for utilities, transport, energy and health facilities is ever-present, and as assets often operate under de facto monopolies or regulated regimes, the best assets can produce stable income flows throughout economic cycles. This makes them potential candidates for CDI.

We acquire assets without leverage or third party borrowing at asset-level in low-to-medium risk, income generating assets. The intention is to deliver attractive, regular cash flows with debt-like risk.

This approach provides:

**i. Flexibility**

Deal origination can take place at different points in the asset lifecycle, on brownfield or greenfield sites. It can give investors more efficient access to early stage and/or less mainstream sectors, and access to assets of varying scale (whereas infrastructure debt investors are usually forced to look only at very large transactions and/or highly commoditised – and hence competitive – sectors). In addition, as well as more mainstream assets (e.g. wind farms, solar farms, etc), other assets/sectors can be accessed that are frequently off-market and not considered by more traditional infrastructure investors.

**ii. Reduced project and reinvestment risk**

With control over the whole capital structure, we reduce project risk by having complete oversight of the asset. Unlike in levered infrastructure equity, there is also no need to meet a bank's covenant requirements – thereby avoiding the escalation of negative performance scenarios to significant capital loss. And unlike in infrastructure debt, the asset owner becomes aware of operational issues immediately, whereas a lender only becomes aware when a covenant is breached- often when it is too late to remedy the situation. Furthermore, as deals are typically fully amortising there is no residual value or reinvestment risk.

**iii. Attractive risk/return profile**

We target attractive risk-adjusted returns, with stable and predictable cash flows at significantly higher yields than comparable corporate infrastructure bonds. Our infrastructure income has consistently delivered >8% cash returns p.a. (gross)*; much higher than infrastructure debt, but without the risk associated with traditional/ leveraged equity tranches of infrastructure projects. In addition, a large proportion of these cash flows are inflation-linked.

**iv. Low correlation with other asset classes**

Infrastructure equity has shown low correlation with other asset classes in the past, a characteristic that is attractive in the event of a broad market correction. Furthermore, in such event, income-producing assets are expected to outperform capital-driven strategies, as the income from stable infrastructure assets would continue to deliver returns for investors.

**Correlation coefficients Q42007 - Q42017**

| | Equities | Sovereign Bonds | Corporate Bonds | Listed Infrastructure | Private Infrastructure |
|---|---|---|---|---|---|
| Equities | 1.0 | - | - | - | - |
| Sovereign Bonds | -0.4 | 1.0 | - | - | - |
| Corporate Bonds | 0.5 | 0.2 | | - | - |
| Listed Infrastructure | 0.8 | -0.1 | 0.7 | 1.0 | - |
| **Private Infrastructure** | **0.3** | **0.1** | **0.0** | **0.3** | **1.0** |

Source: Equities: MSCI World, Government bonds: JPM GBI Global All Maturities, Corporate Bonds: ICEBofAMerrill Lynch Corporate Index; Listed Infrastructure: DJBrookfield GLB Infra (USD); Private Infrastructure; MSCI Global Quarterly Infrastructure Index

# Tailor-made asset class for sustainable investments

Our unlevered infrastructure equity strategy, which focuses on assets with predictable income via regulated or (pseudo-) contracted revenue streams, lends itself to sustainable investments, in particular renewable energy and energy efficiency assets, in addition to various types of social infrastructure.

The Aviva Investors Infrastructure Income Fund, for example, aims to:

- Produce carbon savings in 2019 of 160,000 tonnes of CO2**
- Contribute c. £250,000 to local communities to fund a variety of projects

We appreciate that environmental, social and governance (ESG) factors can have a material impact on investment returns and client outcomes. Our approach ensures that these elements are analysed rigorously during investment analysis and decision-making.

We assess the specific risks in each transaction on a case-by-case basis (illustrated on the next page), seeking projects where the net ESG balance is positive. Due diligence might include ensuring all licences, permits and planning permissions are in place, health and safety policies are maintained, environmental impact assessments have been undertaken and that the impact on local communities is mitigated. If a potential investment raises a red flag, we will seek to find a solution (e.g. replant trees, modify construction plans, etc.), or choose not to proceed.

*Fees, commission or other charges will have the effect of reducing overall performance.
**Aviva Investors/ERM. Data as of 30 Sept 2019.

## Integrating Environmental, Social and Governance considerations

We advocate a detailed case-by-case approach towards assessing environmental, social and governance (ESG) risks. We weigh up positives and negatives to determine the net ESG balance when making investment decisions. This approach is designed to get to the heart of the complex trade-offs that arise in real asset investments.

**Example: Energy-from-waste plant, Hooton, UK | Involving ESG risks, but a net positive ESG balance**

This infrastructure equity investment in 2018 was to finance the construction of a plant to convert household and commercial waste into energy on an existing industrial site, away from residential areas and areas of special scientific interest. Once operational, the project will reduce landfill and CO2 emissions, as well as create local jobs through the construction phase and beyond. The plant will efficiently and effectively dispose of 240,000 tonnes of waste each year.

Despite emissions from burning the waste, the plant will provide 82,000 tonnes of net annual CO2 savings, by preventing the aerobic breakdown of the waste. A waste supply agreement with a local aggregator means that emissions from transporting refuse to the plant should be minimal. The plant will create local jobs, and discussions are in place for local businesses to buy some of the electical output at a discount to commercially-available prices. Overall, our analysis suggested a positive net ESG balance, and we invested accordingly.

## Senior secured infrastructure debt vs unlevered infrastructure equity

Infrastructure debt is an established asset class for CDI strategies due to its stable cash flows. However, unlevered infrastructure equity offers cash flows with similar characteristics but much higher income yields.

| | Secured debt approach | Unlevered approach** |
|---|---|---|
| **Estimated income yield*** | £: 2.5%-4.75% p.a. (gross) | £: 7.5%-8.5% p.a. (gross) |
| **Regulatory risk** | Similar risk for underlying assets | Similar risk for underlying assets |
| **Time-horizon** | Maturities can extend up to c. 30 years, but typically shorter term | Long term, as assets are typically valued based on c. 30 years of cash flows |
| **Inflation protection** | Does not necessarily benefit from same inflation protection as the underlying asset, particularly in the case of fixed-rate debt | Directly benefits from any underlying inflation-linkage of asset cashflows |
| **Control of asset** | Creditors only gain control if fundamentals deteriorate, covenants are breached or the borrower misses a payment | Benefits from control and directly or indirectly is responsible for the management of the asset |

**Forecasts are not a reliable indicator of the future.**

*Aviva Investors internal estimates. As at 30 September 2019.

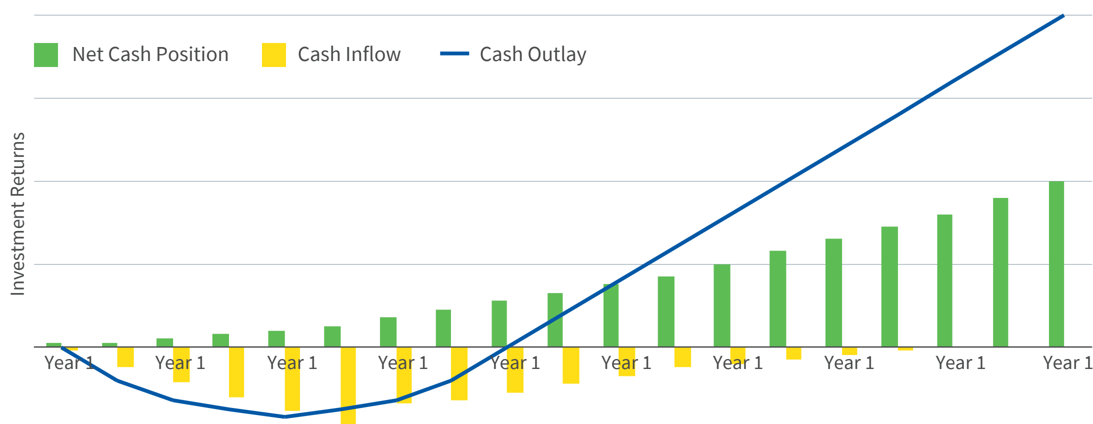
**Refer to Open-ended strategy | Aviva Investors Infrastructure Income Fund graph.

# Other considerations

## What open-ended funds offer

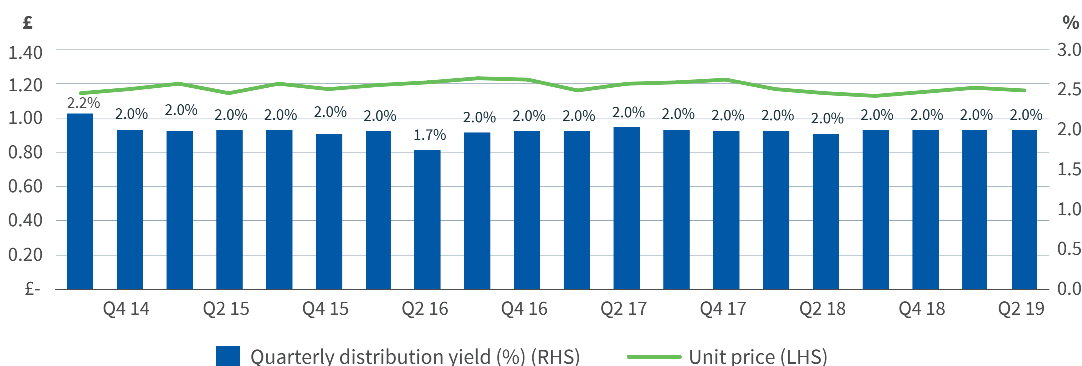
Historically infrastructure equity has been accessed via private equity (PE)-style vehicles with a life of 7-10 years. In these closed-ended structures, investors may be forced to wait for assets to mature, become cash generative and ultimately be sold at the end of the fund's life, resulting in a J-shaped return curve. Pension funds may be better served by open-ended fund structures where they can access a pool holding assets at different life stages that is already generating cash. Such open-ended structures allow portfolios to be built over a longer period, without the threat of deadlines to dispose of assets at potentially inopportune times.

**PE-style closed-end strategy**




For illustrative purposes only. Source: Aviva Investors

**Open-ended strategy | Aviva Investors Infrastructure Income Fund**




Source: Aviva Investors. All figures based on provisional pricing and distribution data as at 30 June 2019. Performance is gross of fees and fund costs and assumes reinvestment of distributions. Benchmark is a basket of three index linked gilts of similar duration to the Fund. Returns to Investors will be net of annual management fees (AMC) applicable to the appropriate unit class. The below table shows indicative past performance for those fee levels. Three-year and longer periods; performance, and yield data are annualised, distributions are total accumulated payments by the Fund.

**Past performance is not a guide to future performance.**

| Infrastructure Income Fund Performance | 3 month | 1 year | 3 years | 5 years |
|---|---|---|---|---|
| Total return (Gross) | 1.1% | 10.4% | 7.4% | 9.8% |
| Total return (85bps amc) | 0.8% | 9.5% | 6.5% | 8.8% |
| Benchmark | 2.2% | 7.0% | 3.8% | 4.6% |
| Distribution yield (Gross) | 2.2% | 8.6% | 8.6% | 8.6% |
| Total distributions paid | £22.2m | £84.4m | £200.0m | £243.2m |

## Conclusion

Including wholly-owned infrastructure assets within a CDI strategy could be a natural step for pension schemes seeking to reduce the volatility of funding levels and match long-term liabilities with stable cash flow. Including low-to-medium risk unlevered infrastructure equity investments in the mix alongside private credit and real estate debt can bring diversification benefits and help enhance returns. The fact that some cash flows are inflation- linked adds to the attraction.

While infrastructure debt is an established asset class for pension funds considering a CDI strategy, unlevered infrastructure equity can bring higher returns without equity tranche risk. Furthermore, the most competitive and crowded areas of the market can be avoided, and varied opportunities can be brought into the frame. Examples include nascent technologies in data infrastructure or battery storage.

For those interested in impact investing, infrastructure equity is an opportunity; having full control encourages asset owners to develop close relationships with their stakeholders and drill down into the operational details of the projects in which they invest. This focus on ESG risks is something that we feel can be particularly advantageous over the long term in terms of delivering on ESG goals.

# Risks

## Illiquidity

Alternative assets are significantly less liquid than assets traded on public markets. Investors may not be able to switch or cash in an investment when they want because the asset (infrastructure/real estate) may not always be readily saleable. In these cases, we may defer a request to redeem the investment.

## Valuation

Investors should bear in mind that the valuation of real estate/infrastructure is generally a matter of valuers' opinion rather than fact. The value of an investment and any income from it may go down as well as up and the investor may not get back the original amount invested. Past performance is not a guide to future returns.

## Tolerance for illiquidity is necessary

New pensions freedoms in the UK have resulted in some unexpectedly large transfers out of Defined Benefit schemes, and liquidity has diminished in some listed instruments since the global financial crisis. All schemes need to understand how portfolios are likely to perform in different market environments and have robust liquidity management frameworks in place.

## Operational risk

Both construction and operating phases of infrastructure assets present risks that can negatively affect investment performance.

## Use in LDI strategies

Infrastructure equity as an asset class would not typically be considered within the context of LDI. Since the value of an infrastructure equity asset does not typically move in tandem with long-term interest rates or inflation, infrastructure equity is not well suited for matching the mark-to-market movement of liabilities.

However, this does not mean that an LDI investor should not consider unlevered infrastructure equity investments. Rather, a pension fund's infrastructure equity investments, and its CDI investments overall, can complement its LDI strategy. LDI should be an integral element in the solution, helping to smooth the difference between liabilities as they come due and the cash flows generated by CDI assets.

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