

## Infrastructure Primer 2 – The Investment Case



### Infrastructure Revenue Streams and Returns to Equity

Once an infrastructure asset has been built, and provided the agreed service levels (as stipulated in the projects' contractual agreements) are met, the procuring client ('Client') or end users make regular payments to the Project Company for the remainder

of the concession (typically 20 – 50 years). These payments, which represent the business' revenue stream, are often categorised as either "availability" based, "demand" based, "shadow tolls", or "feed-in", depending on the nature of the project:

**'Availability' based projects entitle Project Co. to regular payments from the Client once the project asset is "available" for use in the manner and to the standard agreed.'**

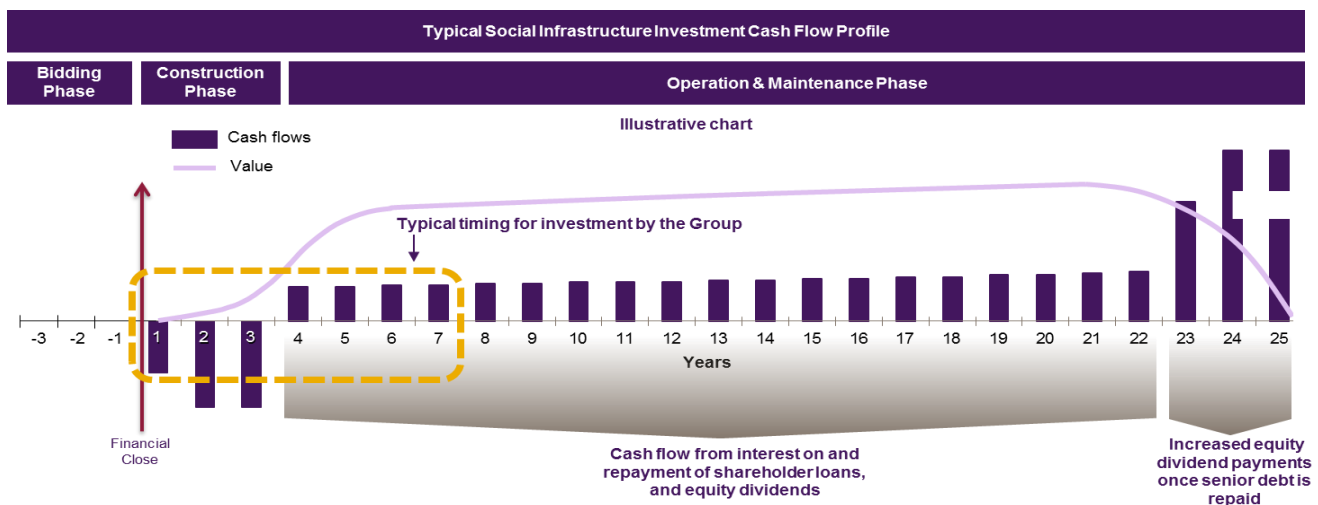
- ▲ **"Availability" based projects** entitle the Project Company to receive regular payments from the Client to the extent that the project asset is "available" for use in the manner and to the standard agreed (e.g. it is decorated, functioning, clean and heated). Availability payments are most closely associated with social infrastructure projects described in the 'Characteristics and Structural Arrangements' Primer Paper, although this payment method is also used on transmission asset, road, railway, light rail schemes.
- ▲ **"Demand" based projects** entitle the Project Company to receive payments correlated to the level of usage of the project asset. For

example, in the case of a toll road concession, payment is in the form of user-paid tolls.

- ▲ **"Shadow toll" projects** are normally publicly procured roads, where the revenues paid by the public sector Client vary depending on the volume of traffic using the road. The payment regime may include a number of traffic volume bands, with the lowest band attracting the highest tariff rate, and the highest band attracting the lowest (often zero). Traffic usage is measured and payment by the Client may be based on both the number of vehicles in each traffic band and vehicle type. When traffic volumes are in the higher bands (i.e. with the lowest rate), revenue is generally relatively insensitive to changes in traffic volumes. There are a number of shadow toll roads in the UK and other countries. Certain transport projects have a payment mechanism that includes both an availability-based payment and a shadow toll payment. In the case of a "steady flow" road project, the Project Company is paid by the public sector Client according to how steady the traffic is travelling and deductions are levied if traffic congestion builds up.
- ▲ **"Feed-in" payment arrangements** are normally found in renewable energy projects where, provided the electricity is produced, the Project Company will receive a predictable income based on either a contractual tariff or similar arrangement. Renewable energy projects are out of scope for the purposes of HICL's Acquisition Strategy.

Differing from all of the above, regulated utilities

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typically represent investments in existing monopoly businesses delivering an essential service with little-to-no demand risk, and little underlying sensitivity with the economic cycle. A regulated utility therefore may offer stable cash flows that are only susceptible to regulatory review.

The payments received by a Project Company from its Client or end users are used to remunerate the Infrastructure Equity investment in the Project Company once the senior debt service, operating costs and other expenses of the Project Company have been met. In this context, 'Infrastructure Equity' means subordinated debt (or the entitlement to acquire subordinated debt) and equity of a Project Company.

Capital in the form of Infrastructure Equity is committed to finance the construction phase of a project. Senior debt tends to be drawn first, and Infrastructure Equity subscription amounts are typically drawn towards the end of the construction phase.

Positive investment cash flow or "income" from an investment in a Project Company is typically received once the project is operational. "Income" from the investment is received in the form of: (i) interest payments on subordinated debt; (ii) repayment of subordinated debt capital; and (iii) dividend payments. Part of the "income yield" received by Infrastructure Equity investors typically therefore will comprise a capital repayment.

Dividend payments by a Project Company tend to be concentrated later in the project life, especially in the last few years once senior debt is fully repaid.

This is illustrated in the increase in the cash flows shown in the table above. The present value (on a discounted cash flow basis) of these residual cash flows should be significant enough to largely preserve the capital value of the Project Company, until the distribution of these residual cash flows commences. This is illustrated above by the decreasing value curve in the last few years of the project's life.

## Inflation protection characteristics

Returns on Infrastructure Equity tend to vary as inflation rates vary. In calculating the expected future cash flows of HICL's portfolio, long-term inflation rates need to be assumed (a 'base case' established) for each investment, although the same inflation figure (or figures, if the inflation assumption varies over time) will of course apply to each project within the same territory on a like-for-like basis.

This impact on Infrastructure Equity returns is the result of the net effect of inflation on the revenues and the costs of the Project Company. The revenues and components of the cost base of Project Companies will typically be fixed in real terms under long-term contracts and then increased over time with reference to specific inflation indices. At the outset these arrangements are structured so as to achieve, as far as possible within other constraints, a matching of the indexation of the revenue with the indexation of the cost base so as to provide a measure of protection of the real Infrastructure Equity returns against movements in inflation.

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The sensitivity of Infrastructure Equity returns to inflation varies between projects but, generally, lower rates of inflation than that assumed in the base case will lead to lower nominal returns. Conversely, higher rates of inflation than that assumed will lead to increased nominal returns, although this may only occur over the longer term. This is because, in some projects in the early years of a concession, the Project Company may have insufficient distributable profit reserves to pay dividends out of the additional cash generated by incremental inflation. The beneficial effect of inflation on returns may therefore be deferred until dividends are payable.

### **Relatively low risk associated with cash flows from mature Infrastructure Equity Investments**

Subject to the relevant risk factors (as identified in the section entitled “Risk Factors” in the Company’s latest Prospectus), the cash flows from Infrastructure Equity investments in projects that have completed their construction phases and are operational are relatively predictable. For infrastructure projects with “availability” based income streams (such as PFI / PF2 / PPP / P3 schemes), provided that pre-determined contractual standards are met, the Project Company is entitled to receive a pre-determined and usually inflation-linked revenue stream, thereby giving significant protection from economic cycles and competitive pressures.

In the case of “demand” based projects, whilst income streams are inherently less certain due to volatility in, for example, traffic volumes, rigorous research and modelling, together with trading history where available, should enable income streams to be predicted with a reasonable degree of accuracy.

For renewable energy projects, the “feed-in” revenue is a function of the electricity generated. This is dependent on the wind speed and duration in the case of wind farms, hours of sunshine and solar panel efficiency in the case of solar parks, and water flow and volume in the case of hydro-electric schemes. Because the tariff regime is contractual and there are good sources of historical climate data available, the revenue from these types of projects can be forecast with a reasonable degree of accuracy.

Certainty of operating and capital costs is also important in being able to forecast Infrastructure Equity returns. In the case of social infrastructure projects, the majority of the costs associated with a project are contractually pre-determined at its outset. This includes the debt funding which is normally secured for the majority of the concession, so that social infrastructure projects rarely require refinancing to meet their base case investment objectives. Renewable energy projects also tend to have long-term debt as part of their initial funding and, again, the operating costs are either contracted at the start of the concession or are predictable based on operating experience.