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TAKING SHELTER FROM INFLATION

DECONSTRUCTING THE IMPLICATIONS OF INFLATION FOR LISTED INFRASTRUCTURE

Global Listed Infrastructure
July 2021

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At a time when inflation expectations have risen to near two-decade highs[1] due to the impact of fiscal and monetary stimulus, investors are naturally concerned about the prospect of higher inflation. Underlying our definition of infrastructure and a core tenet of the asset class is its ability to provide a strong degree of inflation protection. Our recent research shows this belief is backed by evidence and affirms our view that infrastructure assets can help investors seeking a combination of performance and an inflation hedge to better meet those objectives.

Investors in infrastructure have sought to benefit from the essential service nature and strong strategic positions of the underlying assets, which are generally assumed to provide a more defensive equity investment and lower cash flow volatility.[2] The long-dated cash flows from infrastructure are often regarded as an effective match for long-dated liabilities, particularly as the revenues of the underlying assets often have direct links with inflation, and as a result, many investors seek a real absolute return from the asset class.

Where does this inflation link manifest itself?

Most core infrastructure assets have their earnings or revenues linked to contracts or concessions with built-in inflation escalators or have returns set by a regulated asset base with limited or no link to volumes or cyclical demand. Many regulated environments offer return formulae that allow the ability for assets to earn a target return, regardless of market conditions or economic cycle, and an ability to pass through changes in their cost structures over time.

We believe these commercial frameworks underpin the positive real returns historically observed from infrastructure. These same attributes have also resulted in historically higher income than other asset classes as well as the perceived inflation-linked growth of that income. We further consider these inflation-protection attributes in the examples below.[3]

Significant variations exist in the earnings and valuation sensitivity of companies within the infrastructure sector to movements in inflation (and interest rates more broadly), particularly with regard to growth, inflation or regulatory offsets. Regulated assets typically rely on multi-year mechanisms set by an independent regulator as to the price path of tariffs or rates. Whether this regulatory mechanism is a real or nominal framework matters in terms of the direct or indirect pass-through of inflation.

Concession assets typically see tolls or tariffs escalate in line with an agreed formula, while contracted assets rely on agreed price adjustments in their leases or contracts.

One of the more recent additions to the portfolio[4] has been INWIT – an Italian mobile/cell tower owner and operator. INWIT's current assets consist of ~22,000 towers across Italy and come with long term contracts which are ~95% inflation-linked, with a 0% floor.

How is the company protected from inflation? The contracts have built-in escalators, so the rate of inflation is built into the lease payments made by mobile carriers/wireless operators for capacity on INWIT's towers. Coupled with a high fixed cost base and high margins mean that any inflation increases are largely passed through to earnings and equity holders. For example, the company guides that for every 1% increase in inflation there is a ~1.2% positive impact on EBITDA.

These inflation mechanisms work similarly for other infrastructure assets, such as toll roads, including for our holding in Australian-based toll road owner and operator Transurban. The majority of Transurban's assets make quarterly inflation adjustments to the toll charges paid by road users. These inflation escalators are embedded in the concession documents for each asset. Inflation is typically the minimum increase, some have a floor too, such as 4% p.a. Given the high fixed cost base of most toll road assets and in the case of Transurban also having a high proportion of fixed rate debt (~99% of the current debt book is not exposed to the risk of higher interest rates), the majority of any inflation uplift flows through cash flows to equity holders.

Key drivers of inflation sensitivity

Regardless of the type of asset, we believe there are three key considerations with respect to the inflation sensitivity of an infrastructure investment. They are:

1. extent of inflation linkage in revenues
2. operating cost structure and ability to maintain margins
3. capital structure/financing.

1 US 10-Year Breakeven Inflation Rates reached 2.55% in May 2021. Since the turn of the century, forward 10-Year inflation expectations in the United States peaked at 2.74% in March 2005. Source: Bloomberg; US 10 Year Breakeven Rate.

2 The impact of the onset of COVID-19 on equity returns during 1Q CY2020 was a clear and obvious exception to typical economic crises, where significant volatility was seen in specific sub-sectors impacted by the pandemic. The restrictions on the movement of people within economies and across borders mainly impacted airports, railroads and toll roads assets, while the majority of regulated and contracted assets were mostly resilient. Nevertheless, as can be observed from recovery of capital over the subsequent 12 months (Figure 3), the impact on equity values for infrastructure was reasonably short-lived.

3 Based on strategy holdings as at 30 June 2021. This is not an investment recommendation to buy or sell any security. Opinions expressed are subject to change without notice.

4 Maple-Brown Abbott Global Listed Infrastructure Fund.

Why does financing matter?

Higher inflation may be partly offset by the company's capital structure to the extent it has inflation-linked debt obligation, or floating rate debt that may see rates rise with inflation. As a result, we continue to see many infrastructure companies choose to switch out floating-rate debt obligations for fixed-rate debt, thereby eliminating any short-term exposure to increases in interest rates from inflation. Duration also matters, with longer maturities of fixed rate debt instruments further insulating business from rising inflation and rates over time.

To demonstrate the inflation linkages inherent in many infrastructure assets, Table 1 shows four examples from the current portfolio – as at 30 June 2021 – highlighting the varying degrees in their ability to pass through inflation.

Table 1: Current portfolio examples highlighting the wide variety of inflation pass through mechanisms across the infrastructure universe

INWIT (INW IM)

European mobile/cell tower operator

- **Contracted asset** – inflation-linked capacity lease agreements
- **Revenue** – ~95% of revenue (weighted average) is contracted with CPI-linked escalators with a 0% floor
- **Expenses** – high fixed cost includes fixed rate ground leases, high EBITDA margin
- **Financing** – majority of debt is fixed rate (80%)

Inflation Outcome: equity receives greater share of revenue uplift from inflation through to earnings.

Duke Energy (DUK US)

US electric utility

- **Regulated asset** – nominal return framework
- **Revenue** – tariffs are based on a cost of service regulation model, with the allowed Return on Equity (ROE) set using precedent methodology (which is linked to movements in nominal bond yields, but not 1:1)
- **Expenses** – actual costs are reset at each regulatory reset, that commonly occur on a frequent basis (e.g. one to three years)
- **Financing** – actual costs are also reset at each regulatory reset; only 15% of debt with floating rate

Inflation Outcome: increases in operating and financing costs are able to be passed through in a reasonably timely manner. The Allowed ROE increases when bond yields rise, but on average (for the sector as a whole) has done so at a rate of about 50% of the change in bond yields.

Severn Trent (SVT LN)
UK-based water utility

- **Regulated asset** – real return framework
- **Revenue** – inflation-linked water tariffs/asset base
- **Expenses** – pass-throughs to customers with resets every five years
- **Financing** – ~15% of Regulatory Capital Value (RCV) matched by inflation-linked debt (25% of debt with 60% debt/RCV), 67% fixed-rate, only 8% floating.

Inflation Outcome: equity receives greater share of asset base (RCV) inflation uplift.

Transurban (TCL AU)
Australian-based toll road operator

- **Concession asset**
- **Revenue** – inflation-linked tolls, mixture of quarterly-to-annual adjustments, and some with minimums floors e.g. 4% p.a. or CPI
- **Expenses** – no pass-through but typically high fixed-cost base and high EBITDA margin (historically 70%+)
- **Financing** – long average maturity of debt of ~8 years, 99% fixed/hedged

Inflation Outcome: equity receives greater share of revenue uplift from inflation through to earnings/cashflow.

Source: Maple-Brown Abbott, Transurban, Severn Trent, INWIT, Duke Energy. Note: This is not an investment recommendation to buy or sell any security. Opinions expressed are subject to change without notice. Past performance is not a reliable indicator of future performance.

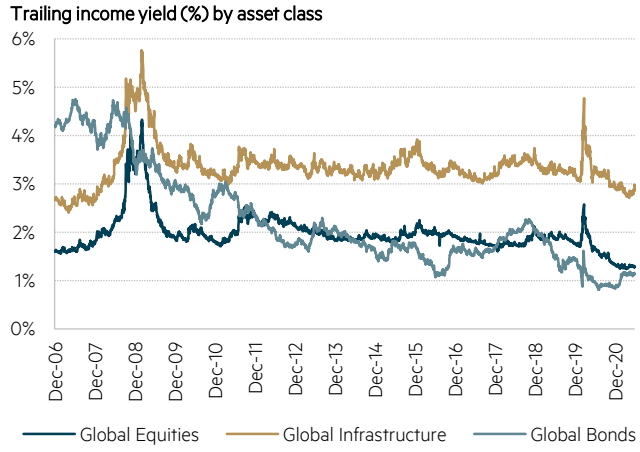
Infrastructure as a yielding asset class

When investing in infrastructure, two considerations we often point to are the stability of income through time and that income's resilience to long-term inflation.

Notwithstanding the recent record lows observed in mid-2020, global bond yields[5] have continued to remain fairly range-bound for a number of years, with flat coupons providing relatively limited returns for investors. In addition, for more than a decade, the flat coupons of government bonds have provided structurally lower income than infrastructure. Conversely, the observed growth in dividends of global infrastructure[6] continues to provide investors with an increasing income yield over time and highlights that a decision to allocate away from bonds to infrastructure can actually enhance total portfolio income. In this era of low growth, infrastructure is often regarded as one of the few genuine 'yielding' asset classes.

As seen in Figure 1, global infrastructure has historically provided a more stable and higher yielding income stream than global equities,[7] which has grown over the longer term in line with, if not greater than, inflation. Over the past 15 years, the dividend yield of global infrastructure has averaged approximately 3.3%, while global equities has averaged a lower 2.0%, and global bonds has yielded about 2.3%.

Figure 1: Global Infrastructure has historically provided a more stable, higher yield



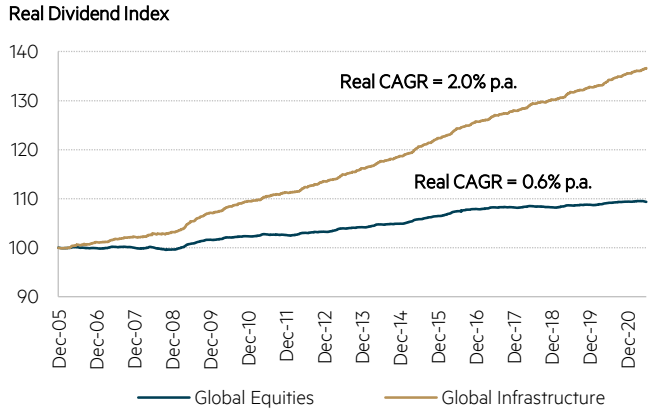
Source: Maple-Brown Abbott internal research; Bloomberg. Past performance is not a reliable indicator of future performance.

Dividends from global infrastructure have demonstrated strong inflation protection

Perhaps more importantly, over this same period our analysis, as seen in Figure 2, has shown global infrastructure provided dividend growth at least commensurate with inflation (as measured by OECD Total CPI), while global equities struggled to provide stable real income levels.[8]

That is, infrastructure has delivered a positive real growth in income over most short and long-term periods. In particular, between June 2006 and June 2009, dividends from global equities did not grow at all in real terms.

Figure 2: Global Infrastructure has demonstrated superior, inflation-beating growth over the longer term



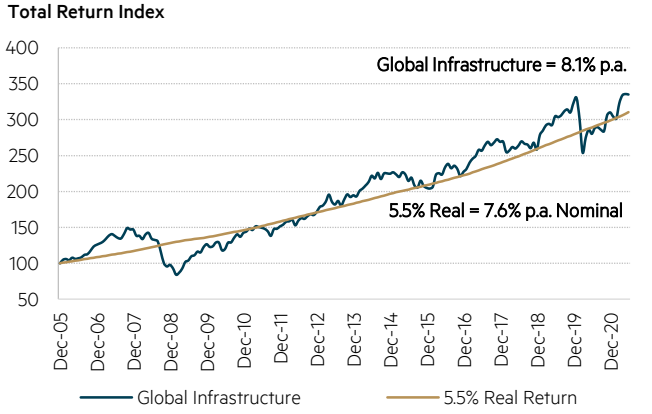
Source: Maple-Brown Abbott internal research; Bloomberg. Past performance is not a reliable indicator of future performance.

Infrastructure delivering real returns

Whether an investor chooses to invest in global infrastructure for its downside protection, for its reduced correlations with global equities, or for its inflation-linked income, a final thought should be given to return expectations. A significant portion of the historical total returns for the asset class has come from dividends – averaging ~3.5% p.a. over the past 15 years and with real growth in excess of inflation, as seen in Figure 3.

The absolute real return generated by infrastructure over the long term shouldn't be ignored.

Figure 3: Historically strong, real absolute returns observed for Global Infrastructure



Source: Maple-Brown Abbott internal research; Bloomberg. Total returns in USD. Past performance is not a reliable indicator of future performance.
Note: A common benchmark for measuring the long term performance of the infrastructure asset class is through the use of an inflation-linked absolute return hurdle. At Maple-Brown Abbott, we believe an appropriate long term objective is inflation plus 5.5%, or 5.5% Real. Inflation is measured using OECD Total Inflation.

5 All references to "Global Bonds" refer to the Bloomberg Barclays Global Aggregate Bond Index. This index is a comprehensive global investment grade benchmark.

6 All references to "Global Infrastructure" refer to the FTSE Global Core Infrastructure 50/50 Index.

7 All references to "Global Equities" refer to MSCI World Index.

8 We have created dividend indices to illustrate the growth in income over time for both Global Equities and Global Infrastructure based on the dividend return components of the total return indices. The Real Dividend Index is calculated by netting the nominal income from the index with inflation as defined by the OECD Total Inflation Index, published monthly by the OECD.