



Quarterly valuation update for the energy and infrastructure sector

Q4 2021

mazars

Quarterly valuation update

Introduction

Welcome to the Q4 2021 edition of our quarterly valuation update, which provides a snapshot of some of the main publicly available valuation trends across the energy and infrastructure sector, covering both debt and equity metrics.

This quarter we continue to look at trends in debt and equity metrics relying primarily on publicly available information. In relation to the equity trends, we use the Mazars indices of listed infrastructure funds and listed renewable energy funds, compiled on the basis set out in Appendix 1 to this update.

In addition, this quarter we have included a spotlight on traditional valuation methodologies such as the Capital Asset Pricing Model (CAPM), asking two main questions:

- How closely do the results of this method align with transactional discount rates observed in the market?
- Which approach is the better basis for valuation of energy and infrastructure assets?



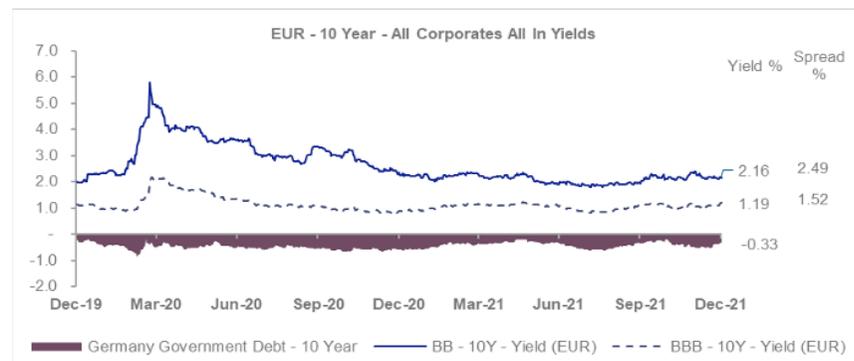
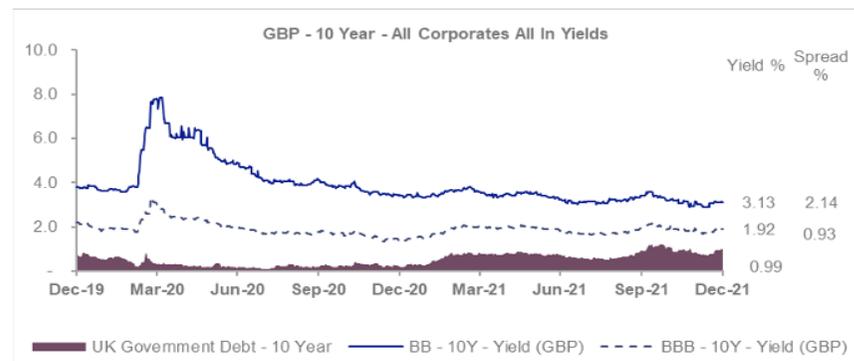
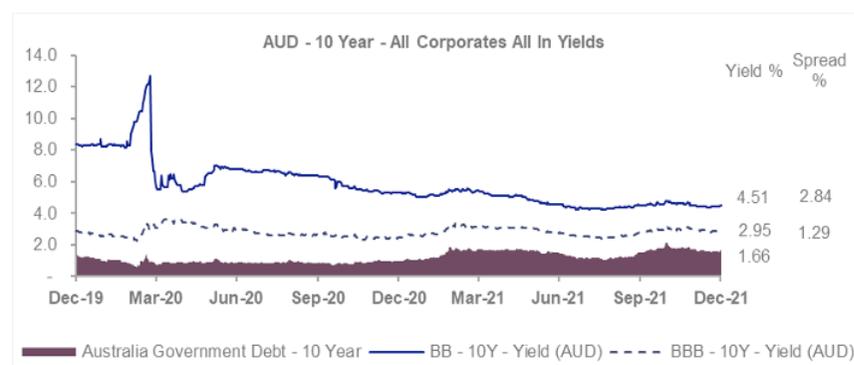
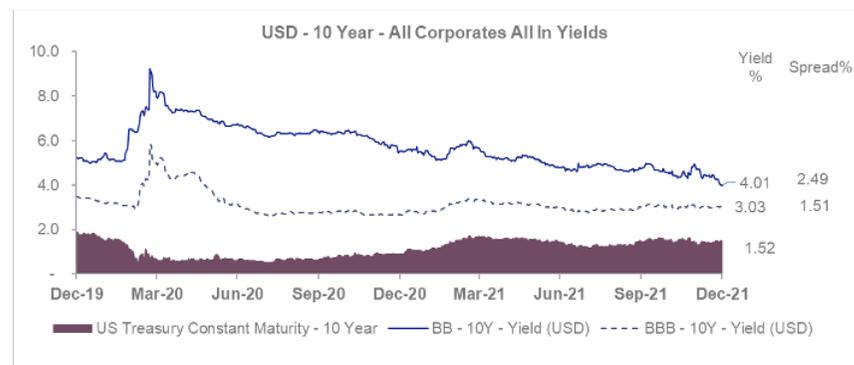
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Debt valuation trends

Competing economic concerns around Omicron and inflation have ultimately left the cost of debt at a similar level to the previous quarter.

- Government bond yields are relevant to valuations because they are often used to inform the risk-free rate and also influence the cost of debt.
- In Q4 2021, there were two main competing pressures influencing gilt yields: inflation concerns (which have led to a rise in base rates in some countries) and concerns around reduced growth linked to the Omicron variant. Ultimately these cancelled each other out: gilt yields by the end of the quarter were at similar levels to those at the start of the quarter in most regions. Indeed, overall pricing has been flat since March 2021.
- Investment-grade bond yields have also been flat since Q1 2021. But sub-investment-grade bond spreads have continued to tighten in some markets.

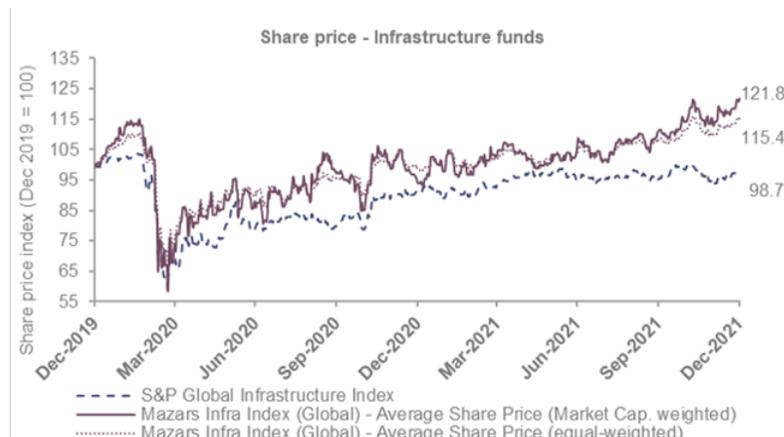


Source: Capital IQ, Mazars analysis

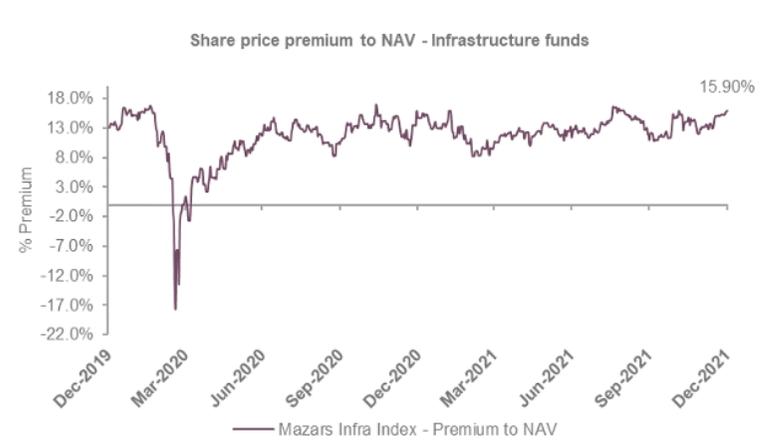
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Equity valuation trends – infrastructure funds

The equity markets continued to demonstrate positive sentiment to infrastructure in Q4.



Source: Capital IQ, Mazars analysis



Source: Capital IQ, Reports from Funds, Mazars analysis

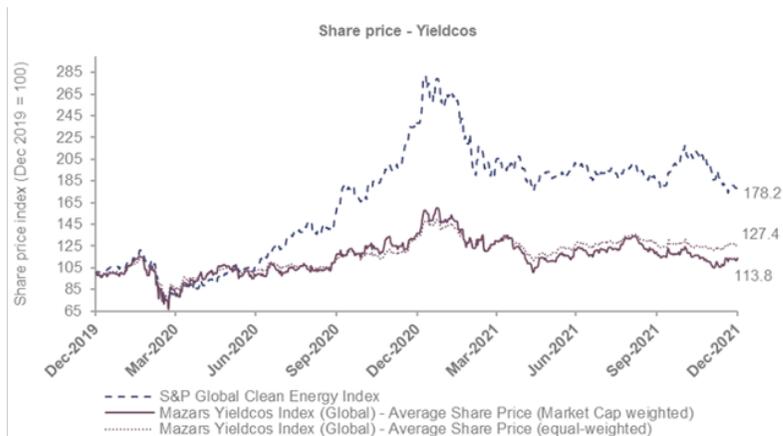
- The broad sector index has showed a flat share price trend in Q4, whereas the Mazars index focused on listed infrastructure funds shows that the price of these has continued to increase and have reached a level that is roughly in line with pre-Covid levels.
- The strong appetite for infrastructure investment was demonstrated by multiple successful IPOs during the course of 2021 overall and in Q4 in particular. In the UK and Europe:
 - Overall well over £4bn capital raised for newly listed funds
 - About 5 new listed funds focusing exclusively on infrastructure assets
 - Existing funds also successfully raised further equity and debt capital, including more than £2bn in Q4 alone
- For existing infrastructure funds, there was a rise in the premium to NAV during the course of Q4. As the graph (left) indicates, the weighted average premium to NAV for the listed infrastructure funds is currently above 15%, towards the top end of the range seen in the past two years. In part, this reflects positive sentiment, but at this level, a further rise may signal a market expectation of increases to asset valuations.

“...a strong appetite for infrastructure investments and increased asset pricing in several auction processes in a variety of jurisdictions which has caused a downward pressure on the respective UK, Eurozone and North American discount rates.” – HICL (Interim Results Report 2021)

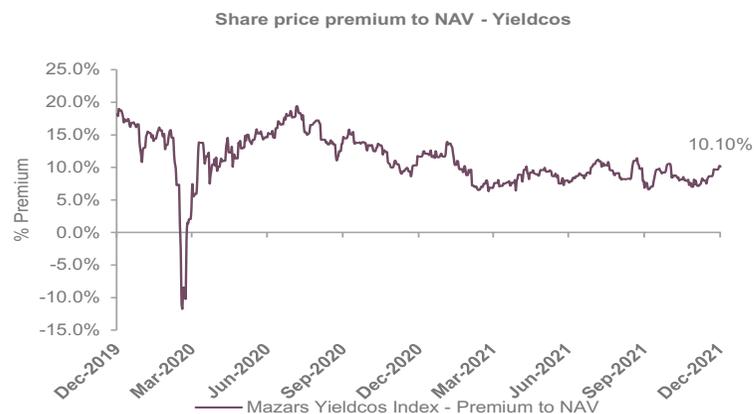
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Equity valuation trends – renewable energy funds

Yieldcos have continued to see premiums to NAV at lower levels than infrastructure funds, despite higher power prices.



Source: Capital IQ, Mazars analysis



Source: Capital IQ, Reports from Funds, Mazars analysis

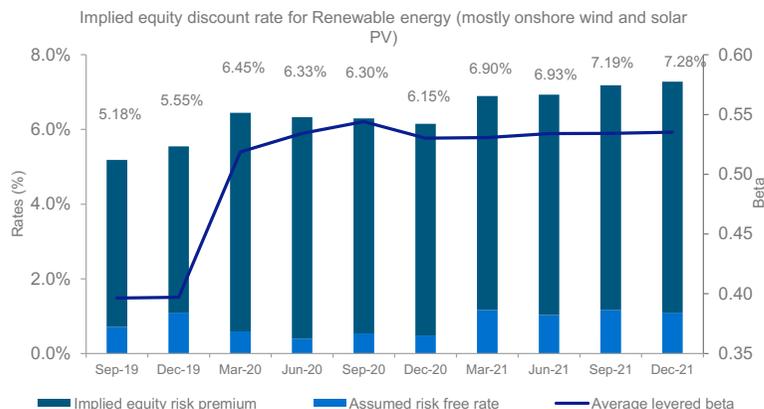
- The graphs for the listed Yieldcos indicate a slight fall in share prices on a weighted basis and a flat trend on an unweighted basis.
- This is despite increased near-term power price forecasts, and as discussed in our [previous quarterly update](#), there are multiple reasons for the absence of a link to Yieldco share prices.
- Notwithstanding this, long-term power price forecasts have also risen in the past quarter, and if sustained, we would expect this to feed into asset values over time. Demand for renewable assets, particularly operational solar assets, has in any case remained high, putting upward pressure on pricing.
- The market for renewable energy assets remains strong, driven by low-cost financing, regulatory support, and a significant number of recent transactions, especially in the battery storage, wind and solar sectors.

“The [positive] change in total NAV reflects an upward revision of the power price forecasts, above forecast inflation during the period and a reduction in solar discount rates” – JLEN (Half-year Results Report 2021)

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Spotlight on implied vs applied discount rates (1)

CAPM implied discount rates have been out of sync with actual reported and transactional market discount rates.



Source: Bloomberg, Capital IQ, Mazars Analysis



Source: Reports from Funds, Mazars analysis

- The Capital Asset Pricing Model (CAPM) is a common methodology used in valuations to determine the appropriate discount rate to apply to forecast cash flows. The essence of CAPM is to take the relevant risk free rate and add to this an equity market premium adjusted for the relative volatility of comparable companies.
- Any CAPM result would need to be adjusted for the specific asset being valued. Nonetheless, the chart on the top left of this page shows how implied equity discount rates that might be used as the starting point for this exercise have risen over the past year. In part, this is driven by higher risk free rates, but betas have also increased slightly since December 2020.
- In contrast, the lower chart opposite shows the noticeable reduction in average discount rates reported by the same funds.
- Why this discrepancy with CAPM? Amongst other reasons:
 - Funds set target returns based on the fundraising environment and their business plans. To a significant extent, they can ignore short-term fluctuations in theoretical cost of capital.
 - To the extent competitive pressures force transactional discount rates down, funds have to adapt or accept not competing in that market. In practice, funds will often choose to go up the risk curve on some investments to achieve a blended discount rate that is closer to their overall target.
 - One reason for higher CAPM results is an increased risk free rate. Sometimes valuers use normalised rates to avoid this, but also the actual cost of debt may not have increased if debt providers are reducing their spreads.

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Spotlight on implied vs applied discount rates (2)

With rising base rates but no sign yet of transactional discount rates increasing, the gap between theory and practice may grow further.

“During the period since 31 March 2021, there has continued to be strong demand for income-producing infrastructure assets. The Investment Adviser, based on its experience of bidding in the secondary market, has proposed a reduction in the discount rate used for valuing UK solar assets of 50 basis points.” - JLEN September 2021 half yearly report

“The increase in NAV during the third quarter is the result of several factors. The most significant was a reduction in discount rates applied to the UK operational portfolio from 6.5% to 6.0%, resulting in a NAV increase of approximately 3.3 pence per share. The revised discount rate is considered an accurate rate for the operational portfolio based on data points from recent market transactions” - FSFL Q3 2021 NAV update

- So what approach should valuers rely on when looking at infrastructure and energy assets?
- Our view is that the gap between implied results from CAPM and actual discount rates used in the market is, if anything, likely to grow in the short term:
 - Excess capital available for investment in the market (in part reflecting the attractions of the sector from an ESG perspective), will continue to chase a relatively low number of greenfield or secondary market assets that become available.
 - This has been driving the trend for lower discount rates for a considerable time – and will continue to be an important force in driving market pricing.
 - A rising interest rate and inflationary environment may ultimately impact on transactional discount rates. But it will have a more immediate impact on implied CAPM results which will increase with gilt yields all other things being equal.
- Price is not the same as fair value. But in the infrastructure and energy sectors, reliance on CAPM is often also a flawed guide to determining fair value in the current environment.
- Ultimately, our view is that an understanding of direct transactional benchmarks and what is actually happening in the market is a more reliable route to asset valuation than CAPM, assuming reliable benchmarks are available. Using appropriate cross-checks such as transaction multiples can also give confidence to a valuer that the valuation reflects current market conditions.

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Conclusions

Three key themes from Q4 2021:

Mostly stable debt markets

Infrastructure and energy assets have continued to see cost of debt at relatively low levels, notwithstanding rising inflation and interest rate expectations.

Sustained high demand for energy and infrastructure assets

The investment environment for infrastructure and energy assets remains strongly positive, and this has continued to be a significant driver for asset valuations.

Theoretical valuation models are out of sync with current market conditions and may provide an unreliable guide to valuations

In an environment of rising theoretical cost of capital indicators but also strong transactional drivers, the gap between implied and applied discount rates may continue to grow. In our view, insight into how the market is valuing assets in practice becomes ever more important in this context.

Appendix 1

Information about the Mazars indices

Infrastructure is an increasingly mature asset class, with an increasing number of listed and unlisted funds set up specifically to invest in and manage real assets across the infrastructure and energy sectors. For the purpose of our analysis, we have constructed two global indices that focus on listed funds, as follows:

- An index of infrastructure funds, currently including 9 funds with activities across 15 countries
- An index of renewable energy funds, currently including 19 funds with activities across 19 countries

While other infrastructure and energy company indices exist in the public domain, they tend to have a broader scope, including for instance construction companies, transport operators, concessionaires and utilities to gauge broad sentiment across the sector.

By focusing on pure asset owners, the Mazars indices aim to be more closely aligned with market sentiment on the valuation of these assets. This is reflected in this update and includes a number public statements from funds on how they are currently approaching their own valuations

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