

Quarterly valuation update for the energy and infrastructure sector
Q3 2024 update and spotlight on valuing projects towards the end of their lives

October 2024

Quarterly valuation update

Introduction



Welcome to the Q3 2024 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 Forvis 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 valuing projects at the end of their life.

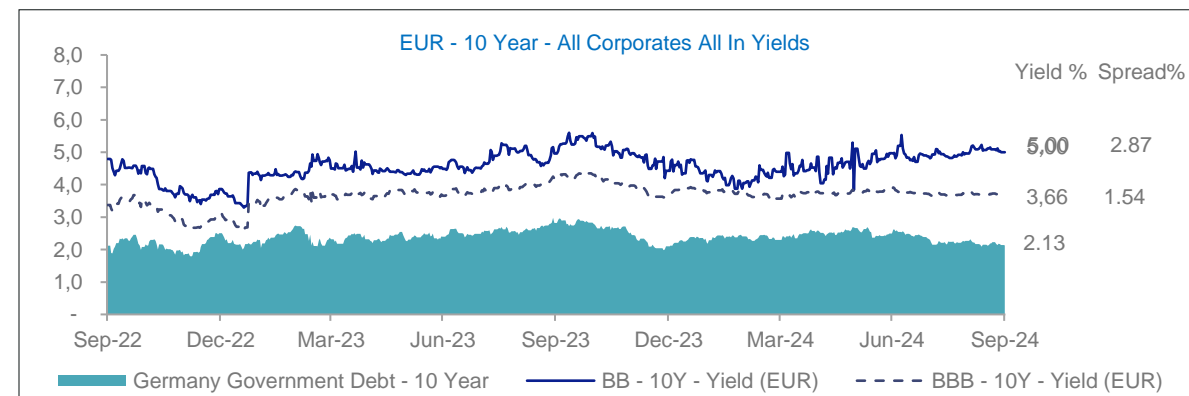
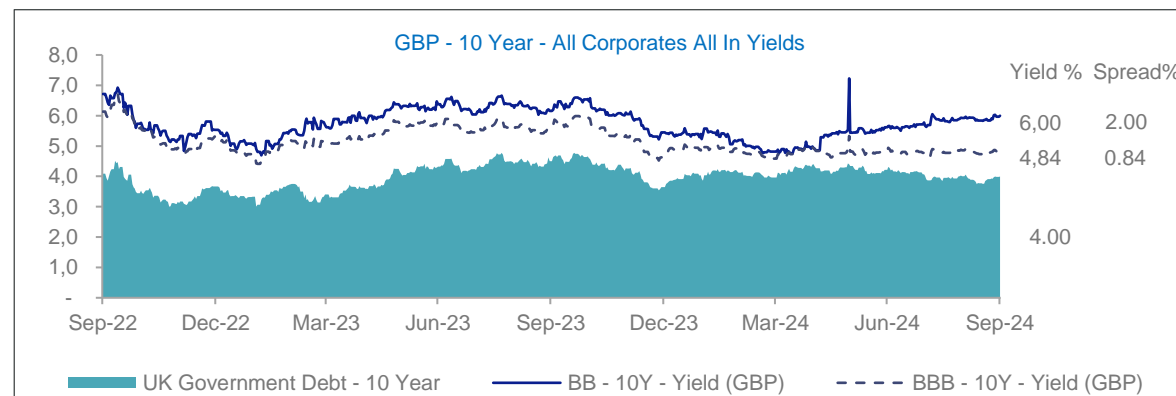
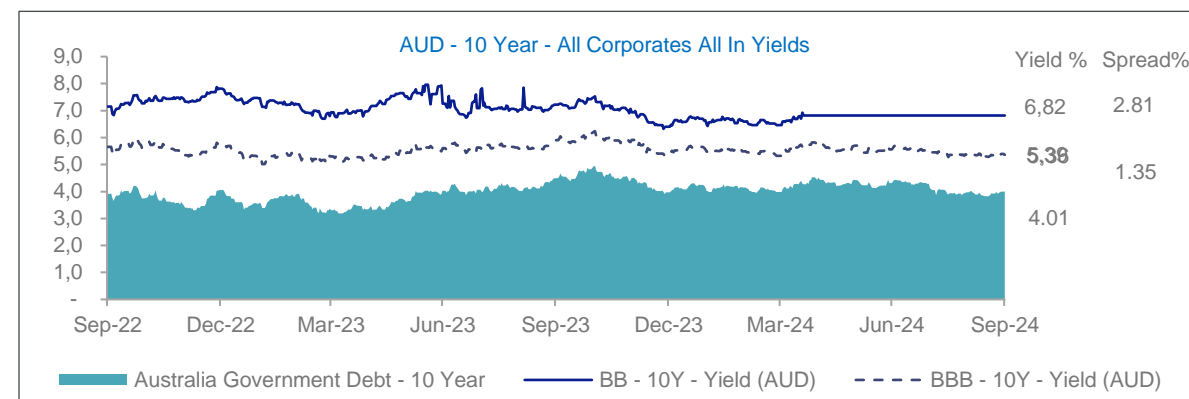
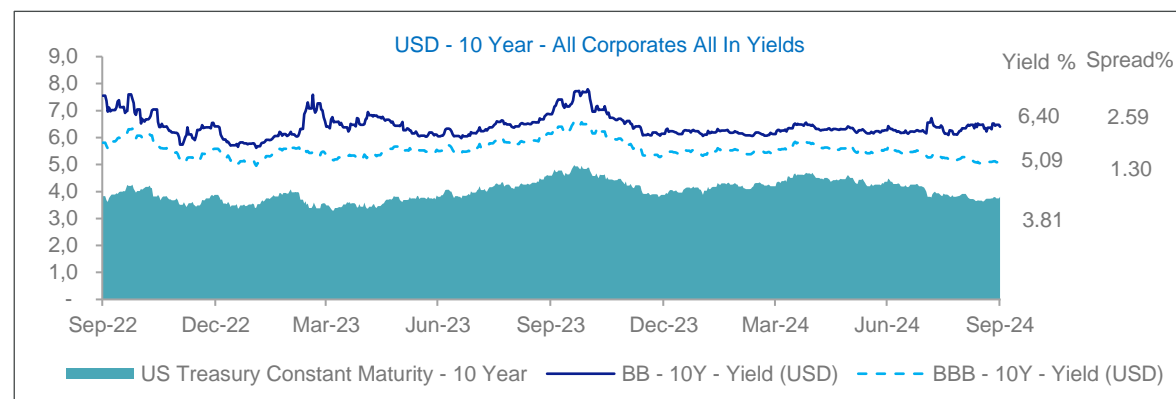
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Debt valuation trends

Cost of debt remained stable in many markets as inflation pressures eased

- Cost of debt below Sept 2023 peaks, with relatively flat trend in the past 6-9 months. The spreads between the BB and BBB government bond yields have widened in Q3 2024.
- Yield curves are partly inverted with the cost of debt higher for short-term durations, and then rising again for longer durations
- Central bank rates in many markets are coming down more slowly than expected due to continued uncertainty around inflation, which is particularly impacting short-term yields. In Q3 2024, the UK and Eurozone have reduced the base interest rate by 25 bps, while the USA has cut theirs by 50 bps.

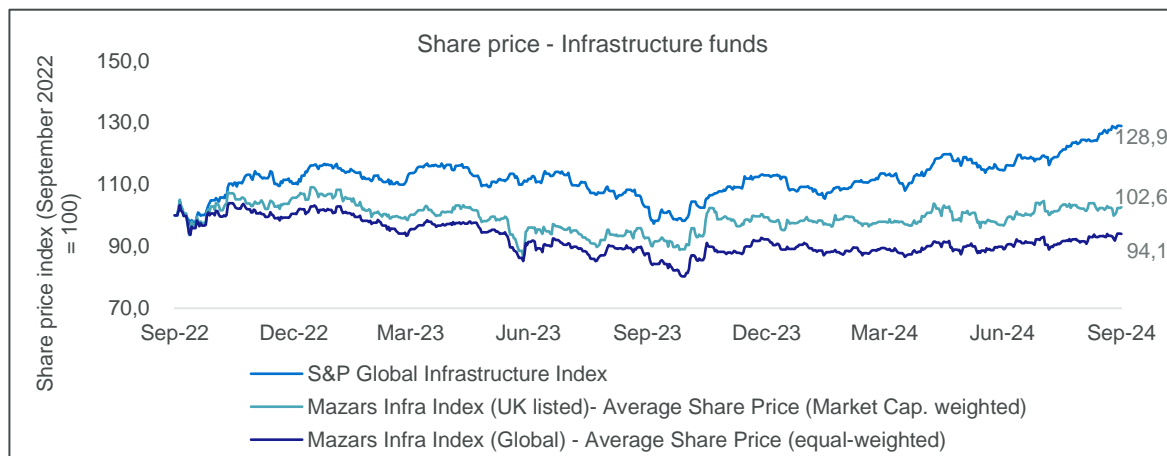


Source: Capital IQ, Forvis Mazars analysis

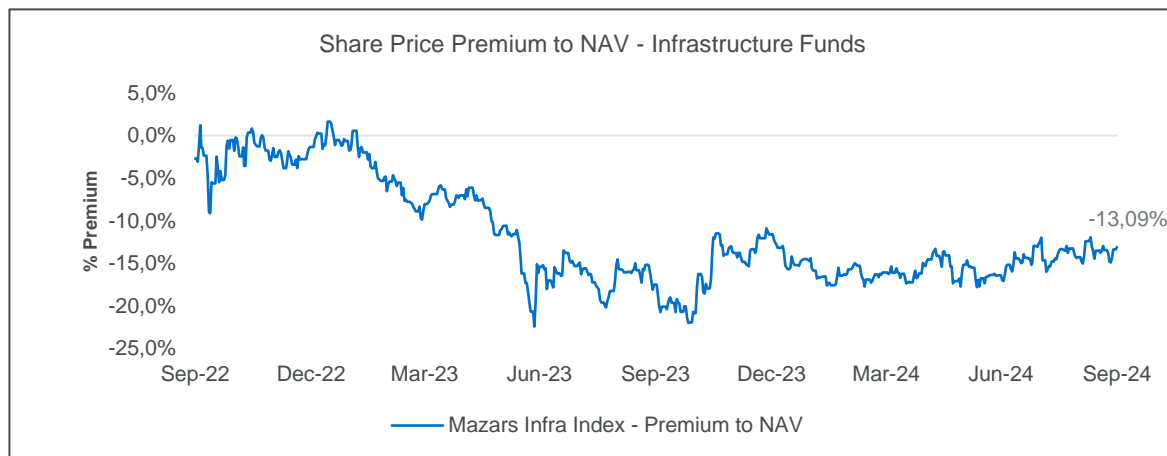
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Equity valuation trends – infrastructure funds

No material change in NAVs in Q3 albeit some volatility in infrastructure share prices



- The graphs show that average share price index has increased marginally over the quarter mainly as a result of favourable market sentiments
- NAVs continue to remain stable over the period, so the overall impact of increased share prices is reduced discounts to NAV.
- Listed funds reported stable equity discount rates for the period ending June 2024.
- Noting that there is a lag in reporting of discount rates, in Q2 2024 the transactional activity indicated valuations that support carrying values.



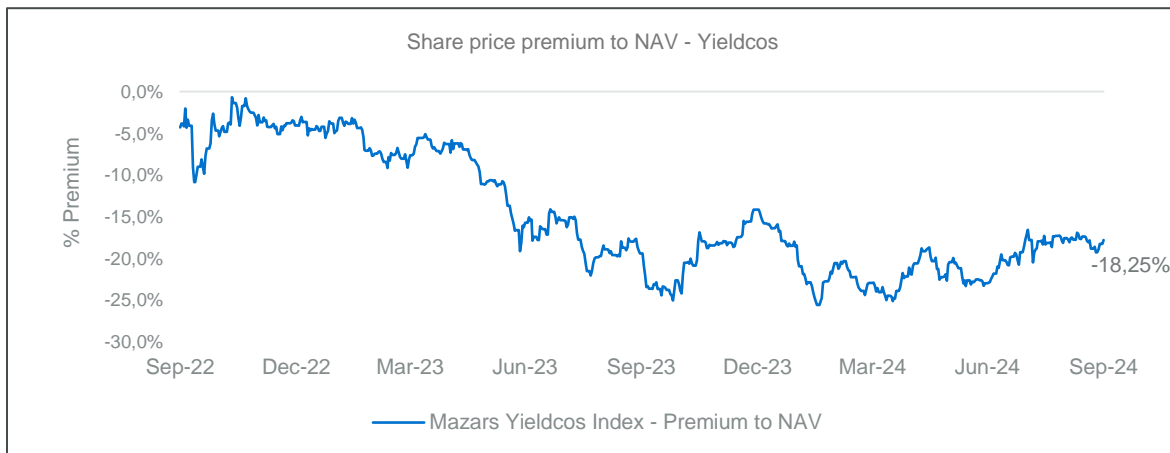
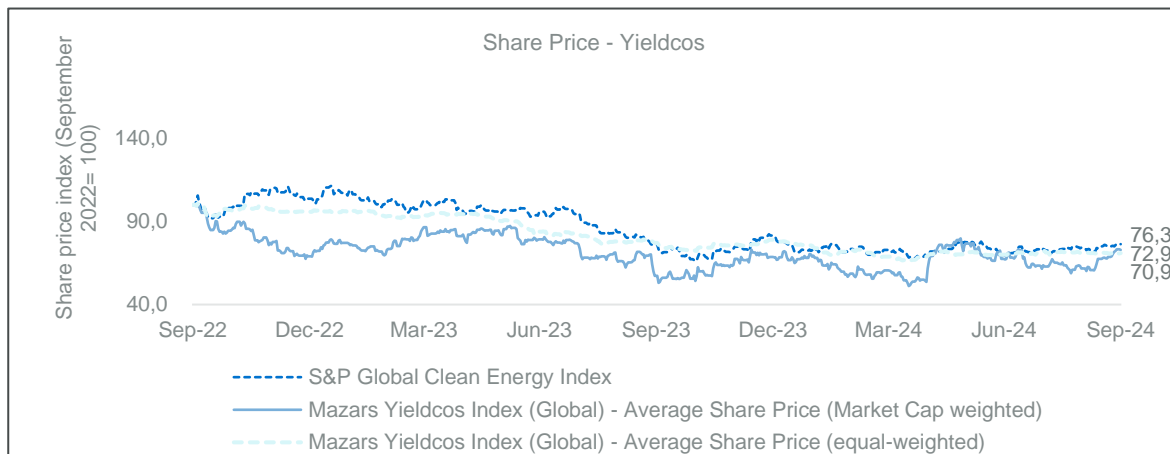
“BBGI reported that over the past 18 months, it has observed over 50 transactions in the concession-based infrastructure sector with approximately 50% of those either closing or launching in H1 2024. The secondary market appears balanced with buyers and sellers transacting at stable prices.”
– BBGI, H1 2024 Interim Report

Source: Capital IQ, Reports from Funds, Forvis Mazars analysis

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Equity valuation trends – renewable energy funds

No significant movement in the share price to NAV premium.



- This quarter, listed renewable energy funds have experienced an increase in share prices, but NAVs have slightly decreased. Overall, the discounts to NAVs have reduced during the period.
- Recent transactions update by the listed funds indicate that renewable assets continue to be valued at a premium or at their carrying value. Notably, the funds have reported stable discount rates, accounting for reporting delays.
- The broader market continues to observe increased transactional activity, including a significant number of greenfield projects being developed and asset sales taking place to help meet the funding requirements of development platforms.

“TRIG reported that disposal agreed for four wind farms across Ireland, UK (Scotland) and, post period-end, Germany, for a combined consideration of £189m, representing an average premium of 10% over carrying value.”
- **TRIG, H1 2024 Interim Report**

“ORIT reported that competition for renewable assets has remained high and the Company has successfully delivered three asset sales (Polish wind, Spanish solar and Swedish wind investments), all at a premium to, or in line with, the most recently calculated holding values.”
- **ORIT, H1 2024 Interim Report**

Source: Capital IQ, Reports from Funds, Forvis Mazars analysis

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Spotlight on: Valuing projects towards the end of their lives

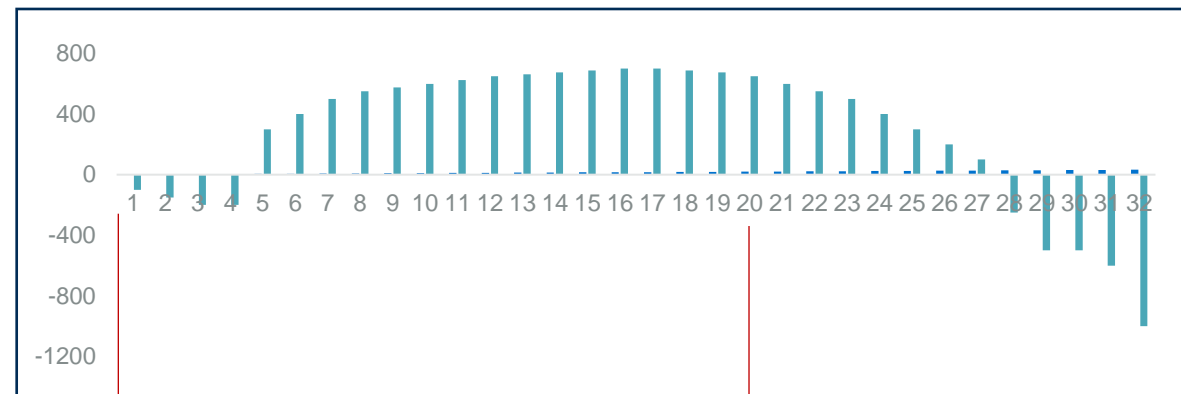
Infrastructure and energy professionals are used to valuing projects with many years of future cashflows, using standard discounted cashflow analysis. But valuing projects towards the end of their lives requires a different approach.

To demonstrate the issue, consider a project with the cashflows shown opposite:

- This would fit an oilfield, for example, with initial construction costs, followed by years of cashflow generation and then decommissioning costs at the end of the project
- Under normal valuation principles, the greater the uncertainty around forecast cashflows, the higher the discount rate that should be applied
 - This leads to sensible results when higher discount rates mean lower valuations
 - The first graph at the bottom of the page demonstrates this relationship by showing how DCF values move when different discount rates are applied to the sample cashflows at the start of the project life
 - And this relationship is true for most valuations across the infrastructure sector
- However, when valuing a project with significant near-term liabilities, the relationship between discount rate and value reverses
 - This is shown in the bottom right graph, which represents the DCF results in Y20
 - Applying the normal approach to discount rates now risks leading to an illogical result as if there is significant uncertainty around the level of costs being faced and a higher discount rate is applied, this would *increase* the valuation
- The same issue would be relevant to other scenarios with uncertain near-term liabilities where a normal DCF approach will over-value the project. We have discussed a few hypothetical scenarios on the next page.

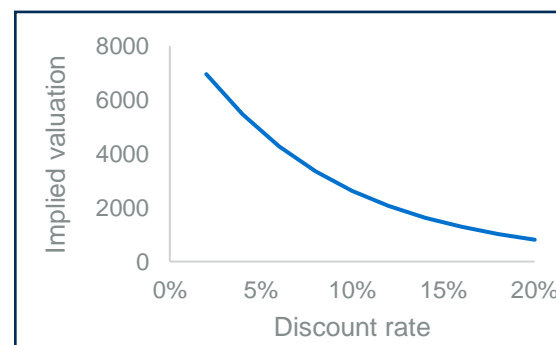
Valuers therefore need to adopt a different approach, which we explore on the next page

Sample project cashflows: construction, operations and decommissioning / handback

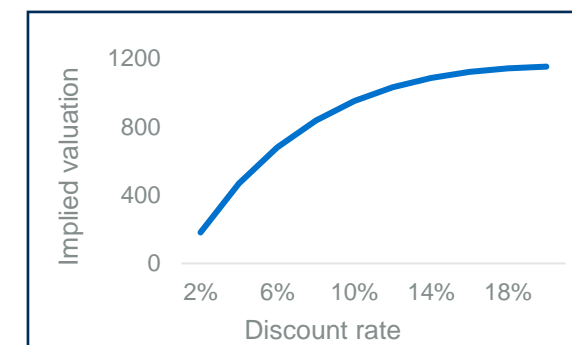


Impact of discount rates on valuation:

At the start of the project



In Y20



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Spotlight on: Valuing projects towards the end of their lives

There are a number of valuation approaches that need to be considered in our view – tailored to the specific situation

In this table, we consider three hypothetical scenarios in different sectors and how valuers would likely approach these:

Example	Oil and gas projects	PFI handback	Renewable energy projects
Scenario	<ul style="list-style-type: none"> Uncertain number of remaining years of declining revenues, followed by decommissioning costs 	<ul style="list-style-type: none"> Despite protocols instituted by authorities (including IPA) and banks to manage end of life risk there is residual equity risk that handback conditions may be disputed. >300 projects to be handed back between 2024-2034 	<ul style="list-style-type: none"> Renewable energy projects where it is unclear whether it will be decommissioned or repowered
Potential valuation approaches	<ul style="list-style-type: none"> DCF still needed but with different discount rates applied to revenue streams and decommissioning costs. As revenue streams are relatively uncertain, a higher discount rate applies Costs potentially valued using a discount rate at or close to the risk-free rate. 	<ul style="list-style-type: none"> DCF can likely cope with the period of revenues only Higher discount rate to cover end of life risk, but may have relatively limited impact on valuation given short timeframe Base case informed by comparison between lifecycle fund and technical advice and any difference to be applied to the overall valuation 	<ul style="list-style-type: none"> It is common in the renewable energy sector to assume decommissioning costs will be offset by scrap metal value or avoided through a potential repowering As the project moves nearer to the end of its life, there is likely to be increased certainty. A repowering can be valued using a normal DCF approach, with discount rates including a construction risk premium. Decommissioning costs typically based on technical estimates and compared to current recycle values
Considerations	<ul style="list-style-type: none"> Taking a prudent / central view of a range of decommissioning cost estimates Valuation would need to incorporate any decommissioning reserve as an asset that offsets the expected liability. 	<ul style="list-style-type: none"> Relationship with the Authority and whether this suggests higher risk of challenge Asset condition report: technical advice increasingly important SOPC4 inconclusive on mechanics 	<ul style="list-style-type: none"> Additional risks relating to a repowering, for instance around planning and lease extensions may mean that it is better treated as a development project valued separately from the existing operational asset
Relevant market evidence	<ul style="list-style-type: none"> Accounting treatment of decommissioning liabilities 	<ul style="list-style-type: none"> Dispute resolution evidence NAO handback survey 	<ul style="list-style-type: none"> Operational model assumptions Market data on discount rates for costs (typically gilts)

Ultimately, the right approach is likely to be a matter of valuation judgement, combined with further inquiry to maximise confidence that the end result is reasonably prudent.

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Conclusions

Three key themes from Q3 2024:

Stable cost of debt this quarter	Gilt yields have been relatively stable over the past 6-9 months. This enables stabilisation of valuation expectations which facilitates improved transaction flow.
Increasing transactional activity across the renewable energy sector	Market activity has been strong, helped in part by lower levels of volatility around the cost of capital. Publicly reported discount rates from listed funds (both general infrastructure funds and more focused renewable energy funds) have been largely flat for the past 6-9 months, following a period of discount rate increases.
Valuing projects towards the end of their lives	Project end of life dynamics mean that traditional valuation approaches are not always appropriate. Due consideration should be given to the specific of the risk in question and an appropriate discount rate to be selected on that basis.

Appendix 1

Information about the Forvis 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 18 funds with activities across 23 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 Forvis 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 of public statements from funds on how they are currently approaching their own valuations.

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