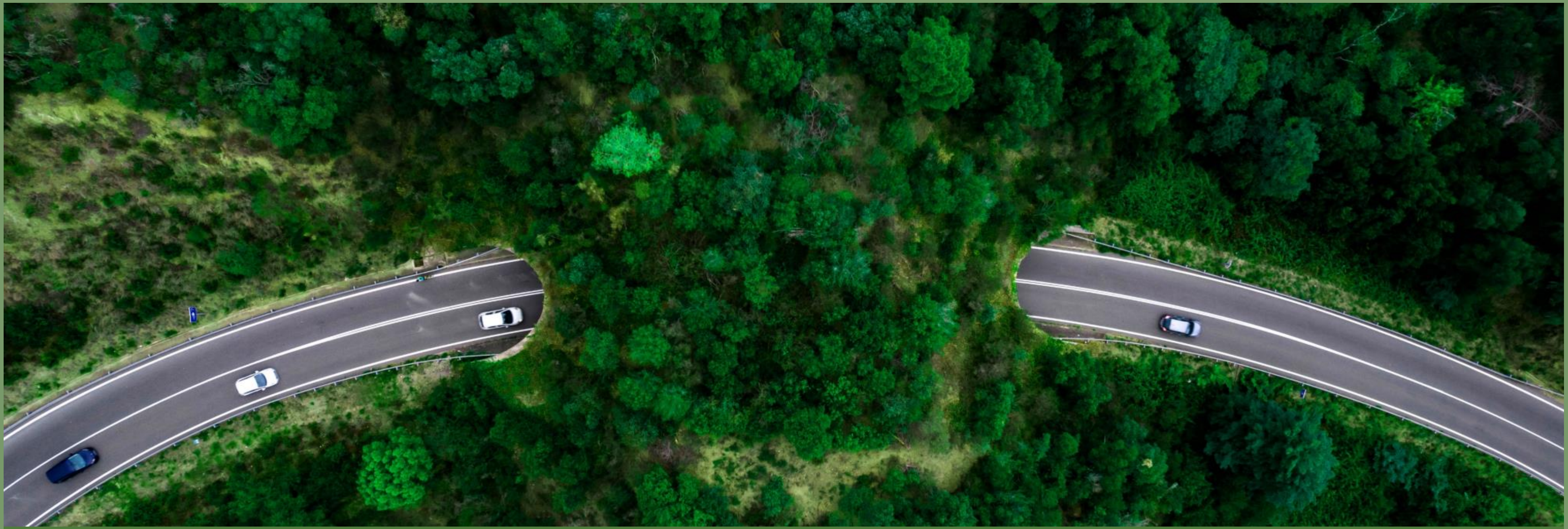


Quarterly valuation update for the energy and infrastructure sector

Q3 2023 update and spotlight on country risk premiums

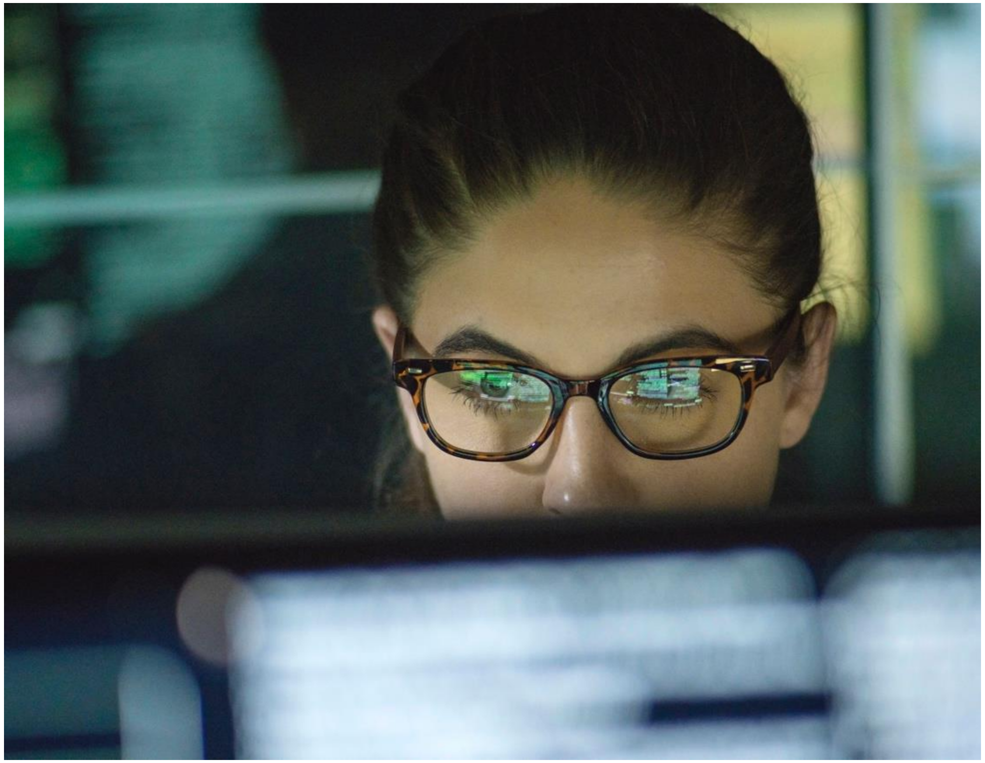
mazars

Quarterly valuation update
Introduction

Welcome to the Q3 2023 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.

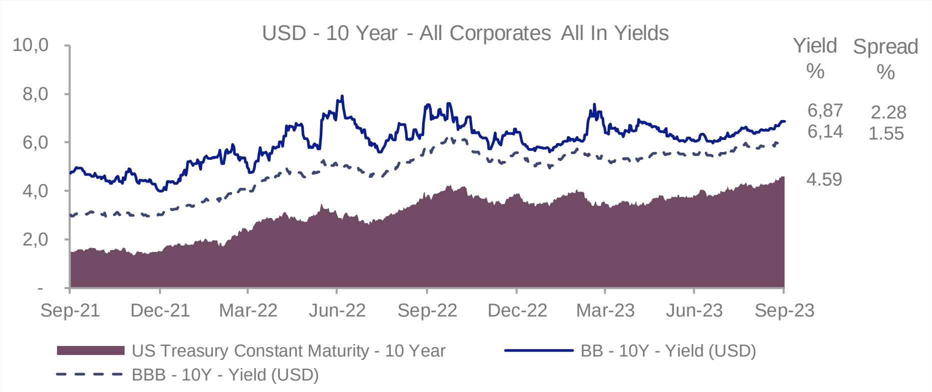
In addition, this quarter we have included a spotlight on how country risk premiums are used in infrastructure valuations.

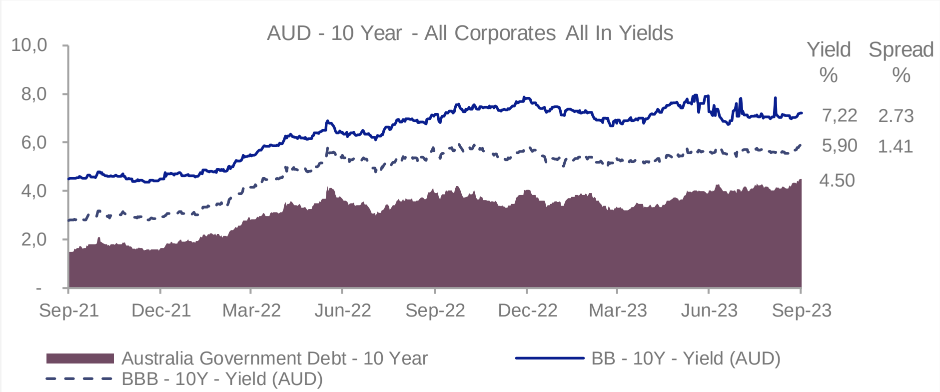


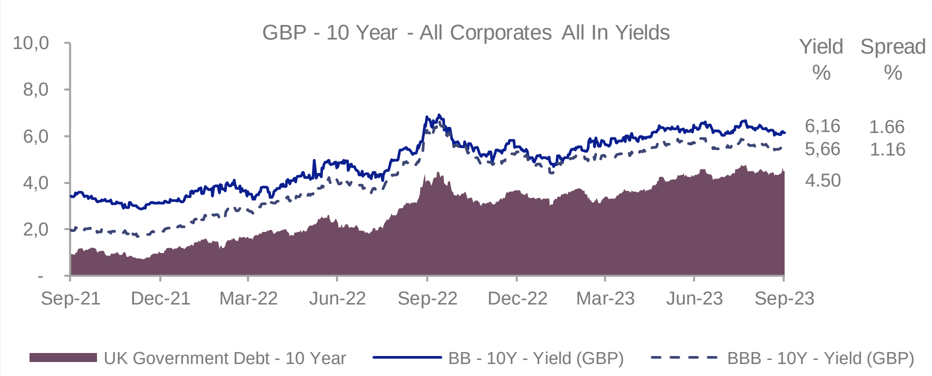
Quarterly valuation update
Debt valuation trends

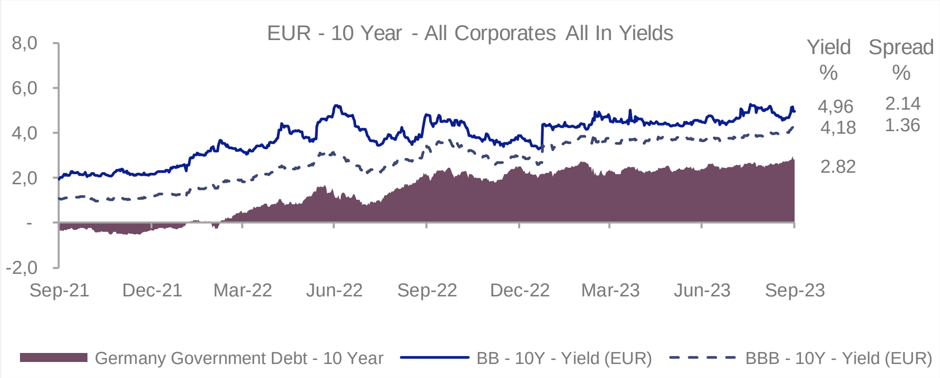
Several markets saw a rising yield trend last quarter in the context of renewed inflation concerns

- 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.
- The big picture is that the rise in the cost of debt during 2022 has been maintained in 2023 and several markets have also seen rising yields in Q3.
- Yield curves are still inverted – but to a lower extent than previous quarters: longer duration debt is again starting to cost more than 2–5-year instruments.







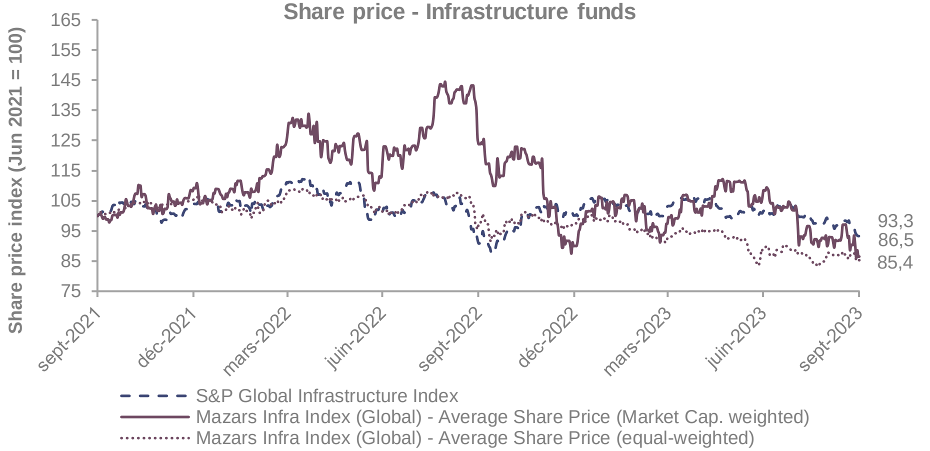


Source: Capital IQ, Mazars analysis

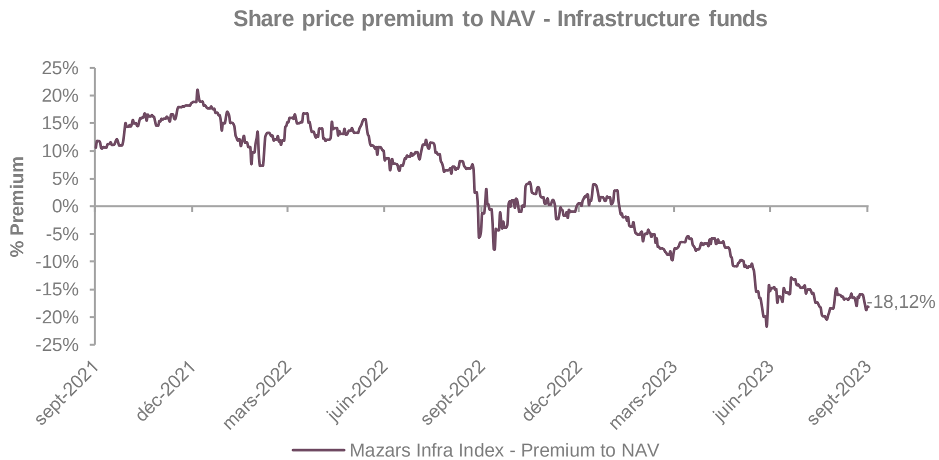
Quarterly valuation update

Equity valuation trends – infrastructure funds

Q3 saw a continuation of the trend of listed infrastructure funds trading at deep discounts to NAV



Source: Capital IQ, Mazars analysis



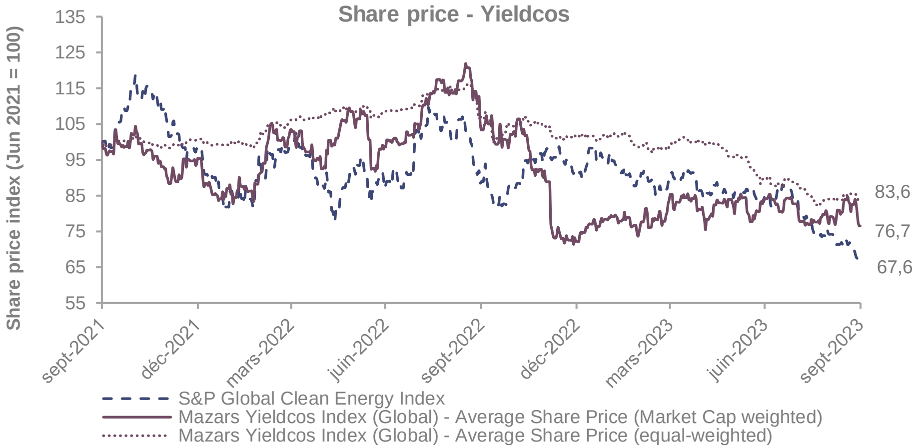
Source: Capital IQ, Reports from Funds, Mazars analysis

- Several funds continue to increase their weighted average discount rates. But these have typically been offset by other changes, including higher inflation and deposit rate assumptions.
- NAVs have therefore been relatively stable rather than decreasing and share prices of funds have not reflected this movement – leading to a disconnect. This is reflected also in some recent infrastructure transactions as illustrated by HICL's comment below.
- For a long period prior to 2022, a 10%+ premium to NAV was typical for infrastructure funds.

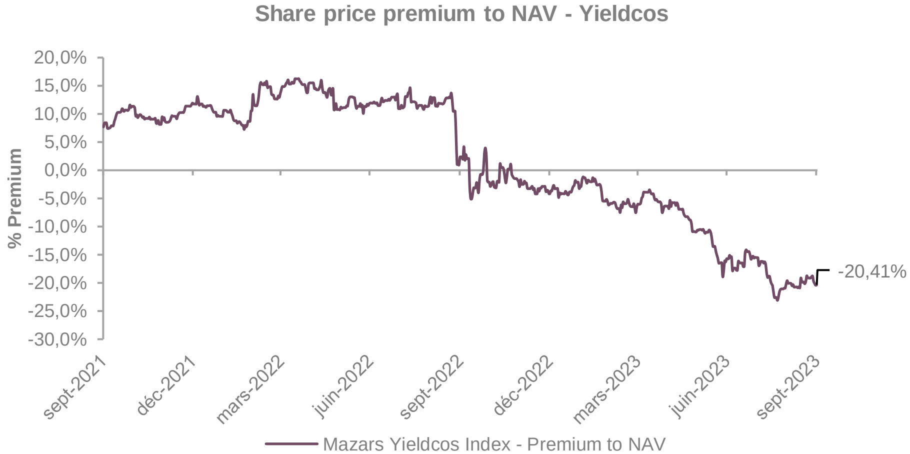
"We've seen some investor concerns about the acute increase in UK interest rates and the applied discount rates and wanted to prove that our net asset value for the fund is robust and that the current share price discount is unjustified. We think there is a disconnect between public market valuations and private market valuations for high quality, inflation-correlated infrastructure assets" – HICL, Edward Hunt – Fund Manager

Quarterly valuation update
Equity valuation trends – renewable energy funds

In the renewable energy sector, there have been similar pressures on valuations



Source: Capital IQ, Mazars analysis



Source: Capital IQ, Reports from Funds, Mazars analysis

- Similar to infrastructure funds, listed renewable energy funds have been trading at deep discounts to NAV during Q3 as part of a broader trend. But in contrast to infrastructure funds, share prices are not at similar levels to two years ago – they average 20% lower.
- There has been stronger evidence than in the broader infrastructure sector of rising discount rates in private transactions. To some extent, these are being mitigated by assumptions elsewhere. But forward power prices are no longer providing the boost to valuations seen during 2022.
- There have also been a number of stalled sales processes in some markets and signs that some greenfield projects are not economic. An example of this was the decision by Vattenfall in July to withdraw from a large UK offshore wind project in the context of cost inflation, softening power prices, and a higher cost of capital.

“Transactional activity in the UK renewables market has eased to some extent, as inflation and higher interest rates have increased investor uncertainty” – BSIF (Annual results report, June 2023)

Quarterly valuation update
Spotlight on the use of country risk premiums in valuations

Country risk premiums are typically added to a discount rate to capture the relative risk of a company in a particular country

What types of risks are being captured through the country risk premium?

- Captures a wide range of factors attached to the risk of investing in a country
  - Reflects degree of **political stability**, any internal or external conflict, role of the military in a country, presence of religious or ethnic tensions
  - But also covers **investment climate**, including socioeconomic conditions, the integrity of public administration, and the rule of law
- All of these are relevant to infrastructure investments. But there are specific nuances to consider, including some of those included opposite.

How is country risk typically calculated?

- Typically based on the spread between a country's sovereign bond yields (denominated in USD) and US T-bond yields of the same duration.
  - An alternative is to focus on the default spreads – either based on credit default swap rates or on typical levels of defaults for particular credit ratings. Either measure is then adjusted by a multiplier based on the relative volatility of the local stock market.
  - In some countries, there is no sovereign credit rating or market in credit default swaps. Therefore, approaches to assessing country risk have tended to be linked more to political risk indices – these are then used to generate an equivalent credit rating.
- Calculations of country risk premia are available online – e.g. from Damodaran, updated periodically. Judgement is needed to apply them.

It will not always be appropriate to apply a country risk premium in full to an infrastructure valuation.

Examples of specific considerations:

1. **Key counterparties outside the country**
   - An example may be an energy project with a global oil and gas major or utility as an offtaker. In a country with relatively high-country risk, this may imply lower risk than one where the Government is the offtaker.
2. **Project not subject to local country currency and inflation**
   - As the country risk premium is partly capturing the risk of additional volatility in these elements, there may be a case for reducing the risk premium if the project is not subject to currency or local inflation risk (or to the local economy).
3. **Potential protections from political risk**
   - Some projects benefit from political risk insurance or might be seen as inherently less exposed to some political risks given long-term fixed contracts and their role in providing essential services

Quarterly valuation update
Conclusions

Three key themes from Q3 2023:

The cost of debt has settled in a new range, and asset owners are having to adapt to this	Long-dated gilt yields indicated a relatively stable trend over the past quarter, which therefore crystallises the rising yields experienced in H2 2022. Private debt transactions are still taking place, but asset owners are having to accept the higher cost.
This is starting to feed into the cost of equity despite continuing high competition for assets	Strong competition for energy and infrastructure assets has limited the extent of the increase in asset discount rates to date. But the capital markets are expecting more to come and transactional trends are starting to bear this out.
Valuations need to account for country risk, but the size of the risk premium needs to account for asset-specific factors	Infrastructure and energy assets may have full exposure to the risk of the country they are located in, but this is not always true. Sometimes assets are not exposed to the local economy and may be protected from political risks. A valuer therefore needs to apply judgement in assessing the country's risk premium.

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 8 funds with activities across 15 countries
- An index of renewable energy funds, currently including 20 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 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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