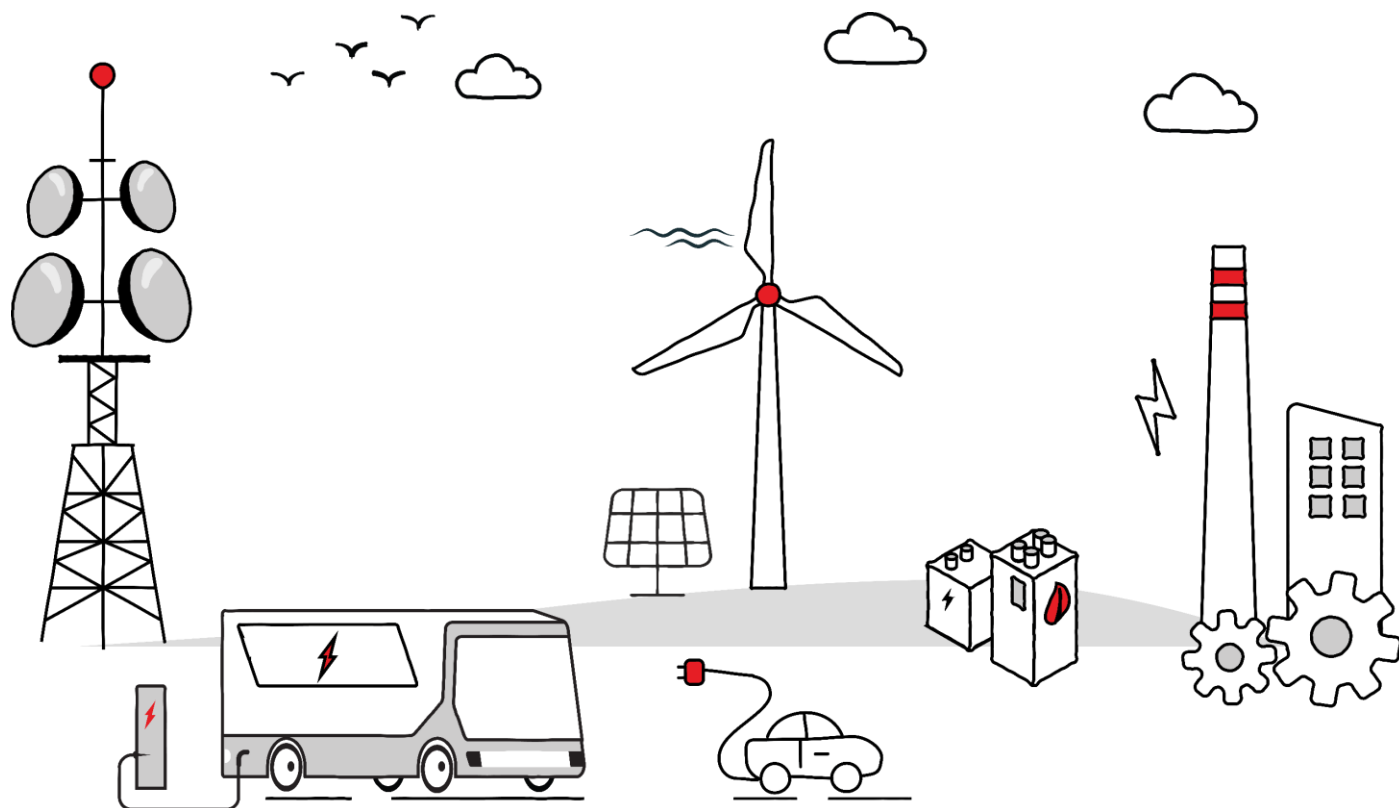
Infrastructure Outlook

Lessons learned for 2023



Paving the way for 2023 (and beyond)

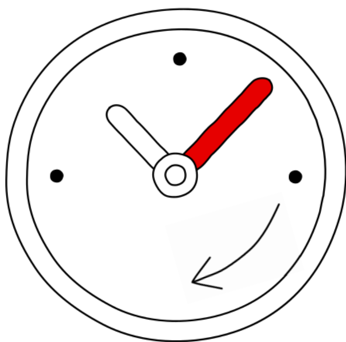
UBS

UBS Asset Management

Creating value in uncertain times

The infrastructure sector remains resilient despite the market turmoil in 2022. Secular trends such as digitalization and decarbonization will continue to drive the need for new investments. However, macro conditions have worsened significantly. Investors can no longer count on cheap credit to boost investment returns. Looking ahead, more reflection and rigor are needed in their investment and asset management strategies to deliver positive outcomes.

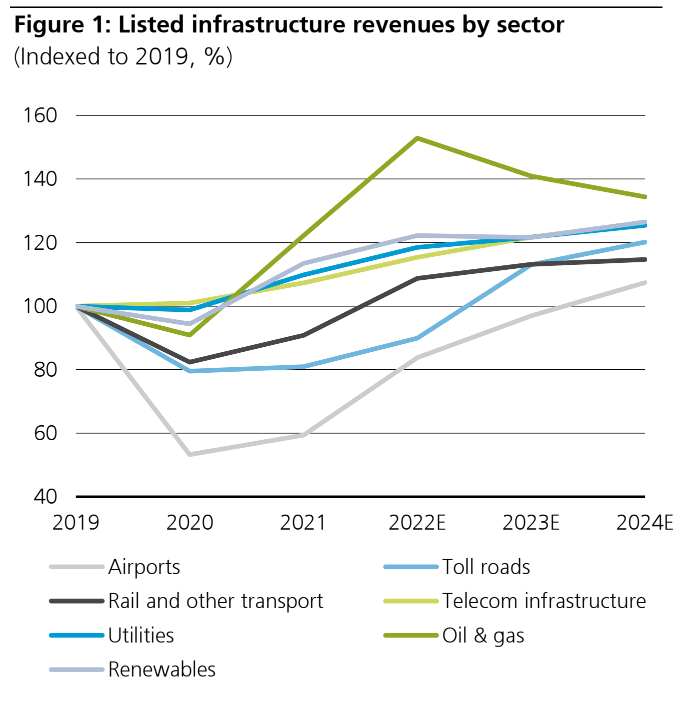
Time for investors to prove their mettle



2022 has been an eventful year for investors, to say the least. Issues such as high inflation, rising interest rates, geopolitical tension, political uncertainty and extreme weather events have pushed the pandemic into the rearview mirror.

Infrastructure assets have performed relatively well in 2022. Based on analyst forecasts for listed infrastructure revenues, the outlook is still relatively strong across the board, with previously underperforming industries such as toll roads and airports finally seeing strong recovery (see Figure 1).

Figure 1: Listed infrastructure revenues by sector
(Indexed to 2019, %)

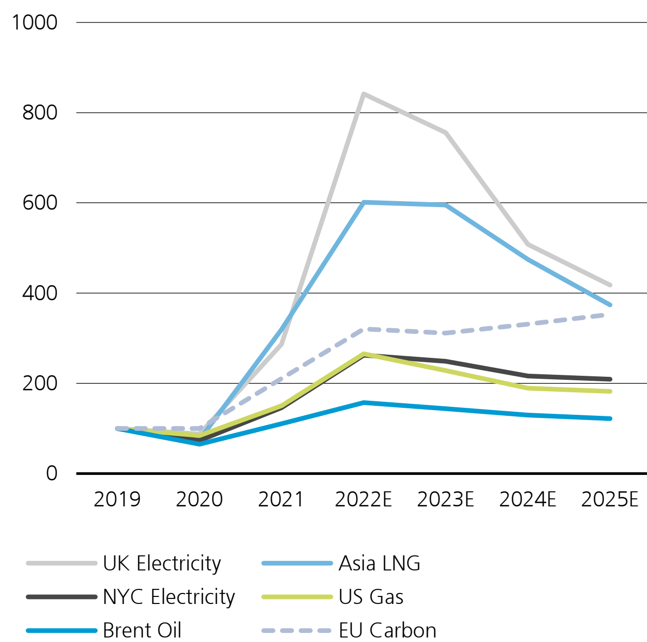


Sources: Bloomberg, November 2022

Oil & gas infrastructure has so far been an outlier, with robust performance due to the global energy crisis. Its sustainability is questionable though, as crude oil price is already down 30% since its peak back in March. Future markets also suggest that commodity prices will also moderate in 2023 and 2024 (see Figure 2) with increased supply growth and demand destruction.

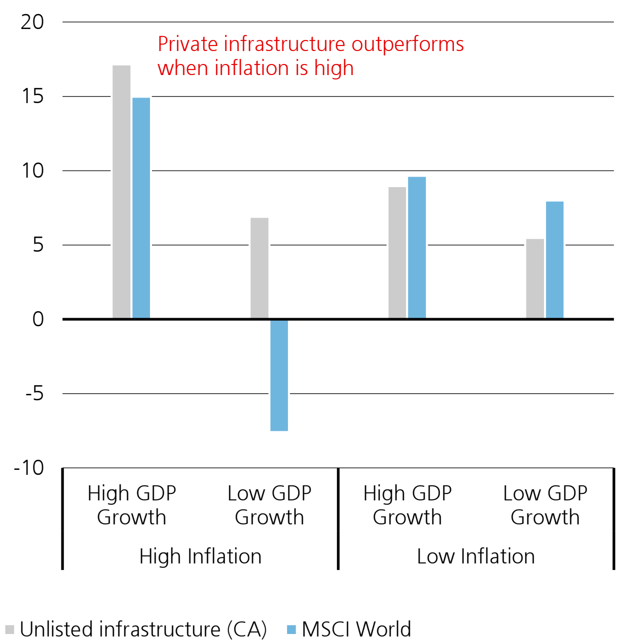
Performance data between 2005 and 2021 backs this up, as private infrastructure outperformed public markets when we saw above-average inflation (see Figure 3). This outperformance is more evident when high inflation was combined with low GDP growth. 2022 will likely further reinforce this, as private markets have outperformed public markets so far in the first half.

Figure 2: Commodity price futures, indexed price
(Indexed to 2019)



Sources: Bloomberg, November 2022

Figure 3: Private infrastructure performance under different GDP/CPI scenarios 2005-2021 (%)

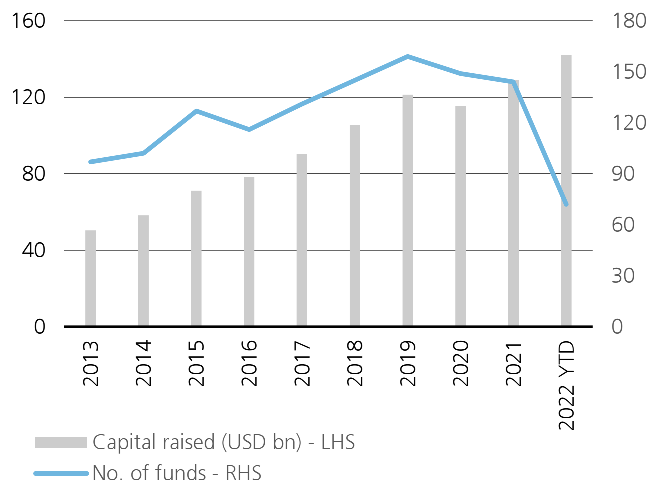


Sources: Cambridge Associates; Bloomberg; MSCI; OECD, April 2022
Notes: Data based on quarterly YoY data; unlisted infrastructure based on Cambridge Associates data; GDP and CPI data based on OECD countries; threshold for high vs. low GDP and CPI are both ~2% (based on median quarterly data of observation period). Past performance is not a guarantee for future results.

Inflation has put private infrastructure in the spotlight, as the asset class has a reputation of being resilient in inflationary environments, given its strong pricing power and its ability to pass higher costs to customers. Its defensive nature also makes it relatively attractive compared to other asset classes during uncertain times, especially when investors are looking for safe havens.

On fundraising, infrastructure capital raised already reached a record by September 2022, although the number of funds has fallen significantly, implying a high concentration of mega funds (See Figure 7). Infrastructure dry powder now stands at a record USD 330 billion, according to Preqin.

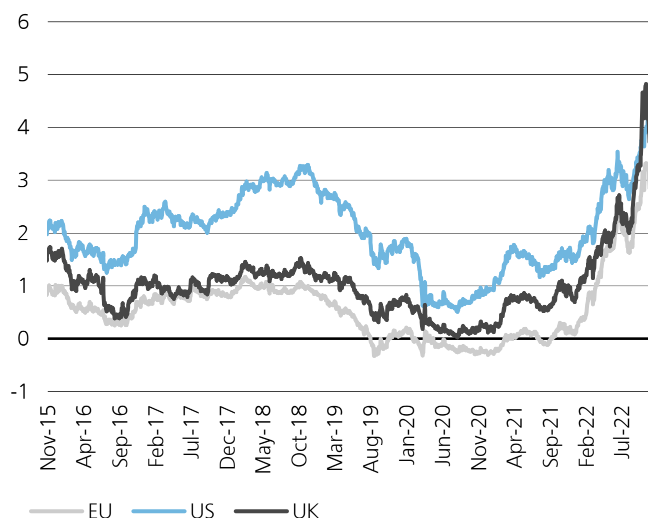
Figure 4: Infrastructure fundraising trend
(USD billions)



Source: Preqin, October 2022

Inflationary pressures have pushed central banks around the world into an aggressive monetary tightening cycle. 10-year government bond yields have increased by 200-300bps year-to-date (see Figure 5). Since infrastructure investments tend to have relatively high leverage, there are now many questions about how this would impact the asset class.

Figure 5: 10-year government bond yields
(10-year govt bond yield, %)

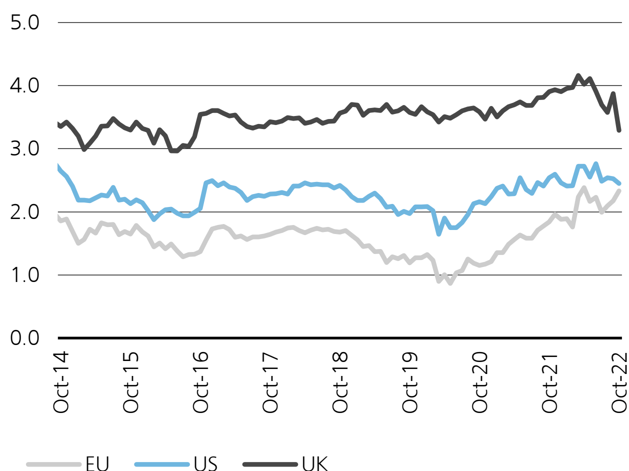


Source: Bloomberg, November 2022

Finally, infrastructure investors have not increased their hurdle rates despite rising financing costs. Deal valuations remain stable even with the underperformance of public markets. Private infrastructure benchmarks such as MSCI and Burgiss remain positive in 1H22, while anecdotally, we have also not heard any reports of widespread write-downs.

This is a controversial topic, which we will discuss in more detail later. But one argument supporting the resiliency of infrastructure is that long-term inflation expectations have remained relatively stable since 2019 in key markets[1] (see Figure 6).

Figure 6: 5-year, 5-year forward breakeven inflation



Source: Thomson Reuters, October 2022

Some would argue that due to the long investment horizon of these assets, changing discount rates based on short-term changes in interest and inflation seem impractical, especially since infrastructure deal valuations do not fluctuate much from month to month.

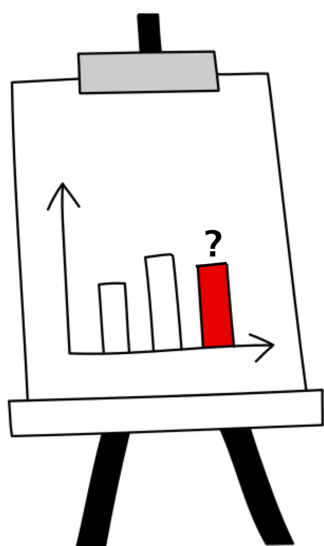
A simpler reason is that USD 330 billion of dry powder supports valuations and keeps hurdle rates low. Essentially, competition alone is propping up valuations as the private infrastructure market remains hot.

In the following pages, we have summarized 7 key lessons learned for 2023 (and potentially beyond).

We offer our views on what infrastructure investors should be mindful of, how they can thrive in the current environment, and how they can stand out from competitors. At the end of this report we have included a summary of the latest trends in the infrastructure markets.

[1] Implied inflation expectations derived from swap rates of inflation linked securities around the world

Lesson 1: Be ready for a tough fundraising environment



The resilience of private infrastructure in previous cycles (including the COVID-19 economic shock) has strengthened the asset class's safe haven status. Strong performance this year has further highlighted its resilience during periods of high inflation. We also saw record infrastructure capital raised in 2022.

However, 2023 could potentially be a tougher year for fundraising. Infrastructure cash flows may prove to be as resilient as advertised, and valuations may remain stable since there is little change in discount rate or earnings, but opportunity cost is still an issue.

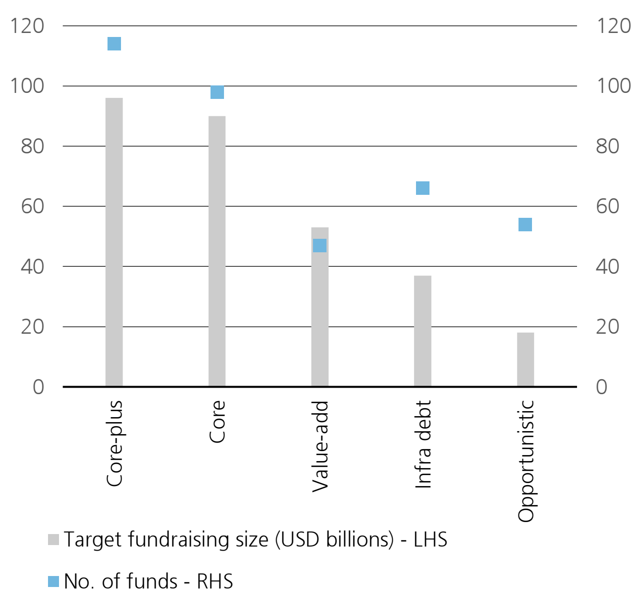
When an investor can buy a 10-year US Treasury Note and get a 4% yield, a super-core strategy with limited inflation protection that generates a (hypothetical) 6% net return would appear less compelling. A higher risk/higher return strategy, or one with a strong inflation pass-through, would appear more attractive based on real returns.

In addition, the weak public markets create a new problem: institutional investors' allocation to real assets are now mathematically higher simply based on the denominator effect (i.e. the public markets' share of investors' portfolios has decreased by more than the private markets' share, thereby increasing private markets' relative size in the portfolio – see Figure 8).

Since asset allocation plans are usually made near year-end, much of this year's infrastructure fundraising success is likely based on decisions made before the current market turmoil. There is a risk that next year's fundraising environment will be more difficult than expected, as LPs are already pushing against (or have already exceeded) their infrastructure allocation targets.

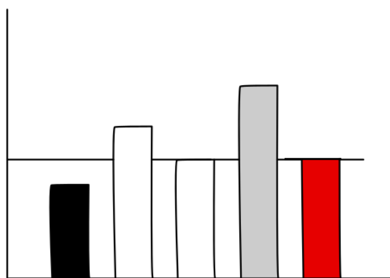
Compression in real yields will also disproportionately impact the appeal of lower-risk strategies, unless they have strong inflation pass-through. According to Preqin, a majority of infrastructure funds in the market right now are targeting core and core-plus strategies (see Figure 7).

Figure 7: Infrastructure funds currently in the market (by type)



Source: Preqin, October 2022

Lesson 2: Don't be complacent about valuations



Private market performance has held up reasonably well in 2022 compared to public markets (see Figure 8). However, with higher interest rates, investors can no longer hide behind the benefit of cheap credit. There is a risk that investors are being complacent, especially since private valuations tend to lag public market valuations.

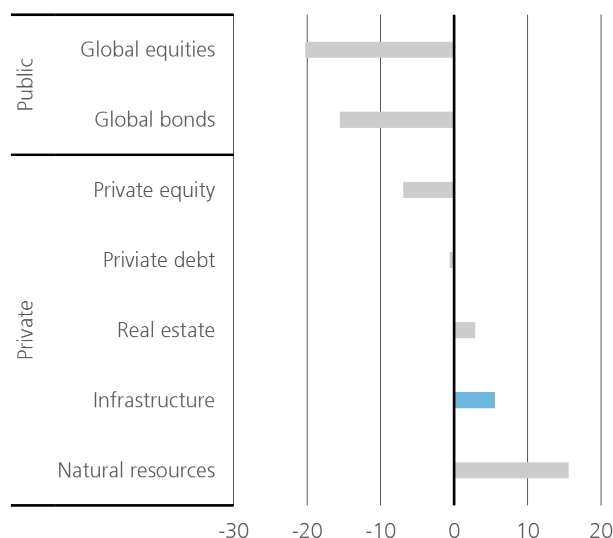
In our view, there will be more divergence in performance across winners and losers. Infrastructure assets that generate strong inflation-adjusted cash flows will still perform well under discounted cash flow valuations, especially if there is no major uptick in the discount rate.

However, investments relying on a rich exit multiple or high terminal value are more at risk, especially if valuation multiples are tied to public market comparables, which have significantly derated.

Mega funds may also target more take-private transactions to exploit depressed market public valuations, and to quickly deploy capital after a record fundraising year.

This would further increase the valuation linkage between public and private markets, as they are competing for the same pool of capital. Weak public markets would then add further downward pressure to private valuations.

Figure 8: 1H22 performance by asset class (%)



Source: Burgiss; Bloomberg, October 2022
Note: Private market data from Burgiss; Global equities based on MSCI World; Global Bonds based on Bloomberg Global Bonds Index. Past performance is not a guarantee for future results.

Uncertainties around financing could also negatively impact valuations. Theoretically, infrastructure with strong pricing power can pass on higher financing costs. But this usually takes time to play out, and in the near term, assets could still face a liquidity crunch or refinancing risk. Growth platforms in particular could see a valuation hit if they cannot grow as fast as planned due to a restricted financing for new projects.

Finally, 2023 fundraising will be a key part of the valuation puzzle. If fundraising disappoints as we discussed in Lesson 1, the USD 330 billion of dry powder that has been propping up the market will shrink rapidly. Infrastructure valuations will inevitably face some downward pressure. Currently, not too many investors are discussing this risk.

Lesson 3: In uncertain times, go back to fundamentals

Infrastructure fundamentals have held up well in 2022. However, the devil is in the details. Based on changes in listed infrastructure EBITDA estimates (see Figure 9), we are starting to see the divergence in earnings outlooks, even if overall earnings estimates have not changed much. We believe that the same performance dispersion will play out across private infrastructure.

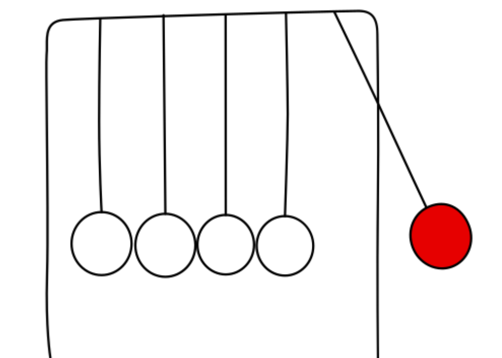
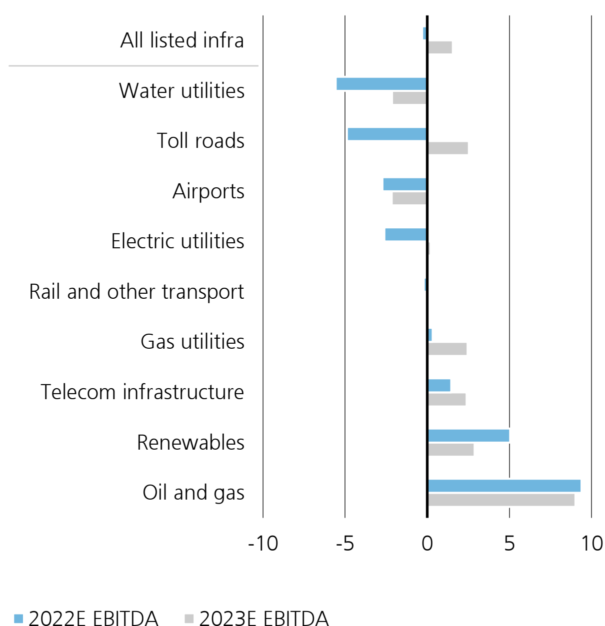


Figure 9: YTD change in EBITDA estimates for listed infrastructure (EBITDA, %)



Source: Bloomberg, November 2022

With high inflation and a negative economic outlook, investors will have to ask some basic questions about their investments. Does the business have a moat and pricing power? Will it be able to pass on higher costs to customers? Even with inflation pass-through, at what point does demand destruction begin? What is the extreme downside case for earnings?

Even though infrastructure investors have not changed their investment hurdle rates, this does not mean that they are off the hook. If anything, there is even more scrutiny on the robustness of their financial forecasts.

Sensitivities are needed for all combinations of high inflation, low inflation, strong GDP growth, and weak GDP growth to stress test an investment. This is particularly important for infrastructure assets because of the amount of leverage that is typically used. Even if underlying fundamentals are strong, a down cycle could easily bring financial distress if leverage is excessive and refinancing assumptions are too aggressive.

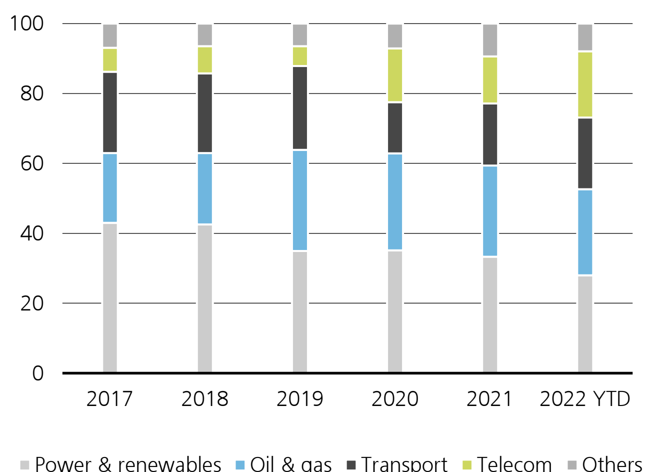
A shallow but long-lasting recession is also an underrated downside scenario. Due to the long asset life of infrastructure investments, 1-2 years of earnings weakness usually has limited impact on valuations (as long as there is no financial distress), as we saw from the COVID-19 shock. However, a long and shallow recession could potentially force investors to take larger write-downs, as a deterioration of the cash flow outlook over a longer period greatly impacts valuations.

Lesson 4: Balance the risks and rewards from the evolving definition of infrastructure

Traditionally speaking, infrastructure investments are hard assets providing essential services, and are characterized by long asset lives, monopolistic or oligopolistic behavior, high margins, and contracted cash flows.

In recent years, this definition has evolved. For example, five years ago, telecom assets (e.g. data centers, telecom towers, fiber networks) were on the peripheral of what is considered infrastructure. In 2022, telecom assets accounted for almost 20% of global infrastructure deal volumes (see Figure 10).

Figure 10: Global infrastructure deal volumes
(closed infrastructure transactions, %)



Source: Inframation, October 2022

Much of this evolution is organic. As data consumption grew, the essentiality of these assets became even more apparent. Secular tailwinds have allowed investors to relax some of the traditional definitions of infrastructure (e.g. less near-term cash flows for higher growth), as these investments still check many of the other boxes (e.g. high margins, essential services, oligopolistic).

Similar, as renewable energy became more mature, assets with increased merchant pricing exposure or platform deals with limited near-term cash flow have become more mainstream, as the sector as a whole has significantly de-risked compared to a decade ago.

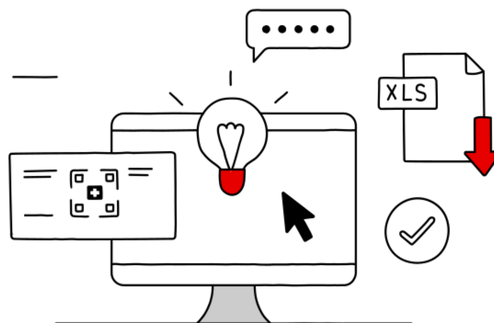
However, some infrastructure funds are also targeting investments that are asset-light or generate lower margins. Some of these are still good businesses, as they are often exposed to attractive industries such as telecom or renewables. But they are undoubtedly also riskier. Low margin services businesses are usually more susceptible to economic downturns, as demand for them is more discretionary.

Secular growth businesses also face higher valuation risks. Based on time value of money, cash now is worth more than cash later. Prolonged economic weakness would further pressure valuations of businesses that generate little cash flows now and rely too much on long-term growth. The de-rating of tech stocks in public markets is a warning sign of this.

On the other hand, as discussed in Lesson 1, if the value of an asset mainly comes from near-term cash flows, the real returns look less attractive unless it has a very high cash yield that is benefitting from inflation.

Investors therefore face a dilemma: should they invest in secular growth that is riskier in the current environment, or should they invest in less risky core assets with strong cash flows that offer relatively unattractive real returns?
The answer depends on a deal by deal basis, and basic business fundamentals will likely be the deciding factor, as discussed in Lesson 2.

Lesson 5: From reactive to proactive asset management



As infrastructure business models continue to evolve, investors must roll up their sleeves and take a more proactive role in asset management. Gone are the days of acquiring an investment, and assuming that it will generate cash flows non-stop from the beginning until the end of asset life.

For example, many clean energy and telecom infrastructure investments are now platforms, which means investors are not just acquiring a portfolio of operational assets. They are also acquiring management teams that will monetize a pipeline of growth projects.

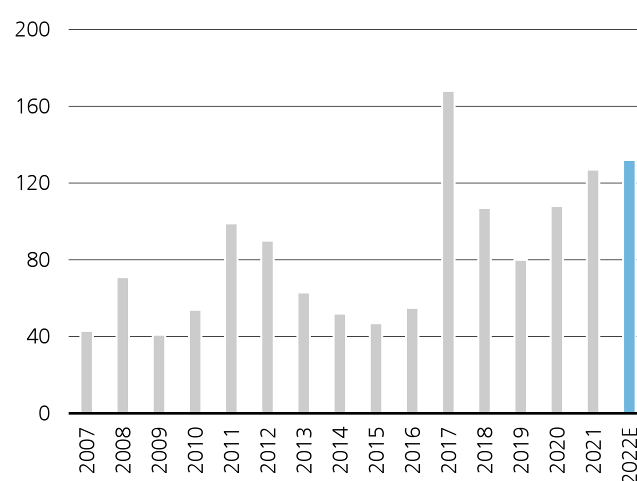
Investors need to ensure that they hire the right people to execute these growth strategies, have appropriate incentive programs in place, the right organizational structures, and potentially recruit industry experts to provide more hands-on guidance internally.

Changes in technologies and policies are also an important factor when managing assets. Even if an investment appears to be performing well and firing on all cylinders, managers need to be proactive in future-proofing them.

Is there new technology that can enhance asset performance? Or on the downside, increase competition? Does a more rigorous ESG framework need to be put in place to satisfy future reporting requirements? Will certain policy changes help or hurt the asset? These are the types of questions that asset managers should constantly be asking themselves.

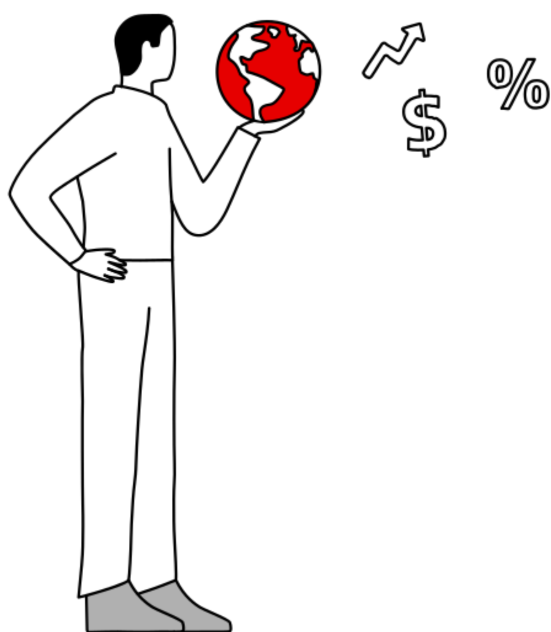
Finally, climate risk has also become more tangible for real assets in recent years (see Figure 11). We have seen data centers suffering outages during heat waves, port volumes declining due to dried up rivers, and wind turbines freezing during winter storms. Managers may need to adopt more robust maintenance programs, upgrade existing equipment, explore financial hedges, or amend commercial contracts to ensure resiliency.

Figure 11: Global weather-related insured losses
(USD billions)



Source: Aon 3Q22 Global Catastrophe Recap, October 2022

Lesson 6: Expect more price volatility from gas globalization



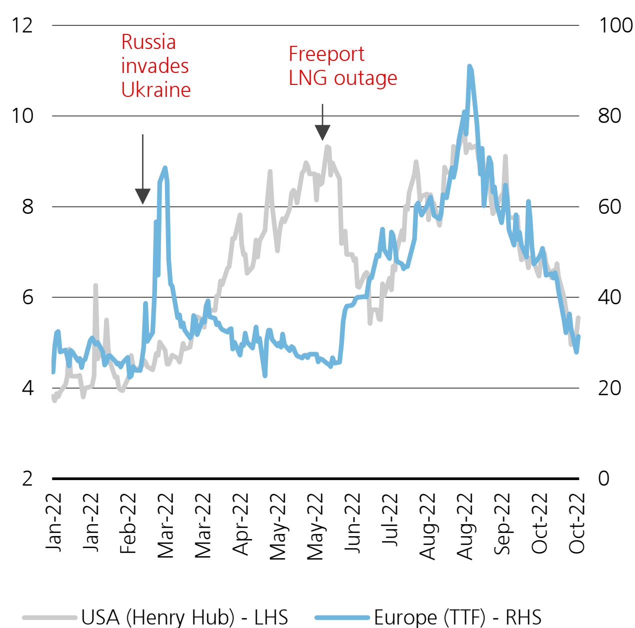
The global energy crisis has made energy prices untenable in regions such as Europe, where energy contributes to almost half of its inflation in 2022. These high costs are enough to drive local economies into a recession, as manufacturers can no longer afford to pay for energy, and industrial output gets curtailed.

The impact on the US has been more limited, as it is resource-rich and energy only contributes to less than 20% of its 2022 inflation. The crisis also opens up significant opportunities for the US to accelerate the expansion of liquefied natural gas (LNG) capacity.

However, the unintended consequence of LNG is that natural gas (and even electricity prices) will become more globalized. Unlike commodities such as crude oil, which has always been a global market, natural gas and electricity prices have historically been more localized due to difficulties in transportation and storage.

The build out of LNG is changing this dynamic. For example, in June 2022, the Freeport LNG terminal in the US had to shut down after an explosion – the immediate reaction was a 20% decline in US natural gas prices, and a 40% increase in European prices in the subsequent week (see Figure 12).

Figure 12: Natural gas prices (USD/MMBtu)



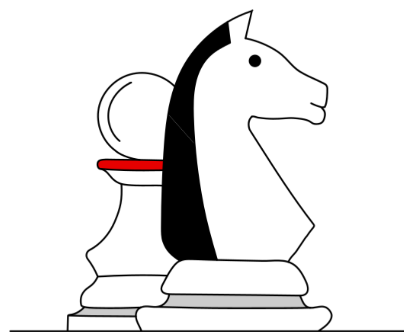
Source: Bloomberg, October 2022

This linkage did not exist before the build out of US LNG terminals, and is a sign that investors have to be more prepared for these types of events.

Since natural gas prices usually set the marginal price of power in most markets, even global electricity prices could become more interconnected with each other. In addition, the acceleration in renewable energy adoption will further increase power price volatility due to the intermittent nature of these resources, which will add to price volatility everywhere.

Investors will need to have a more global outlook for energy markets, expect stronger revenue correlations across geographies, be more aware of events around the world (i.e. weather, policy changes, force majeure etc.), and prepare for greater price volatility.

Lesson 7: Don't leave politics out of it



The current inflationary environment has exacerbated the cost-of-living crisis around the world, leading to more populist government policies and intervention. This includes price cap on energy, windfall taxes, new regulations and even nationalization.

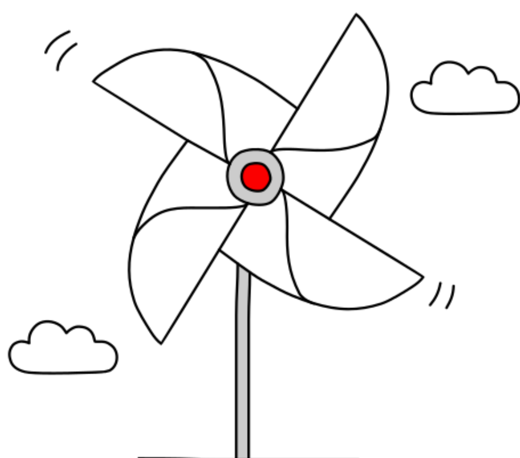
Some of these are necessary given a part of a government's social contract with its citizens is to protect their basic necessities. Nevertheless, it sets a precedent for future government intervention, and potentially raises the long-term risk premium. Investors can no longer count on perpetual regulatory benevolence even in previously investor-friendly jurisdictions.

Governments around the world also appear to be disregarding decarbonization goals with the restart of coal-fired facilities and fossil fuel extraction. In this regard, it is important that investors look at the bigger picture. High fossil fuel prices may force governments to take extreme short-term action, but longer term, it would also accelerate the energy transition as countries scramble to look for alternative energy sources.

For example, investors were surprised by the enactment of the US Inflation Reduction Act, which has become the most important clean energy legislation in recent history. The lesson here is that public opinion matters, and issues that receive broad political support (i.e. decarbonization) will have more regulatory tailwinds.

Politics are notoriously difficult to forecast. Investors should have a pulse of the political climate, but they should also make conservative assumptions around policies. One potential mitigant is to scrutinize the strength of legal contracts (and the stability of relevant judicial systems) to ensure their investments are protected even when there is political turmoil.

Private infrastructure markets

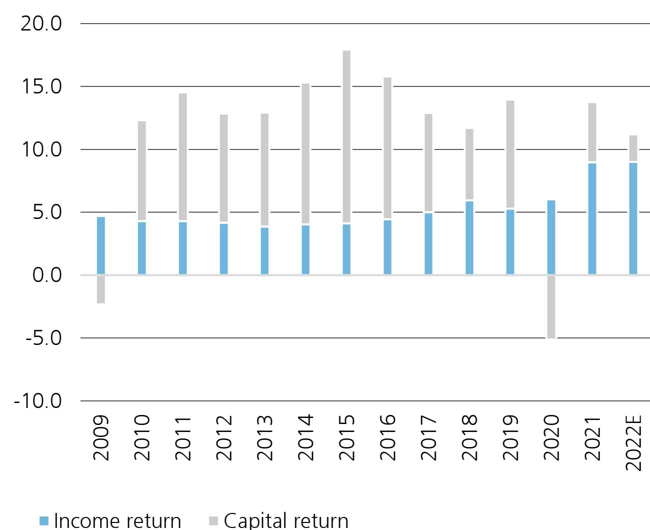


In this section we look at the health of the infrastructure equity and debt markets in terms of performance and valuations.

Infrastructure equity
According to both MSCI and Burgiss, global private infrastructure was +5.6% in the first half of 2022, even though public equities[2] were -20% over this period. Interestingly, according to MSCI, private infrastructure performance is increasingly driven by the income rather than the capital return component (See Figure 13).

[2] MSCI World Index

Figure 13: Infrastructure performance
(gross total return %, local currency)



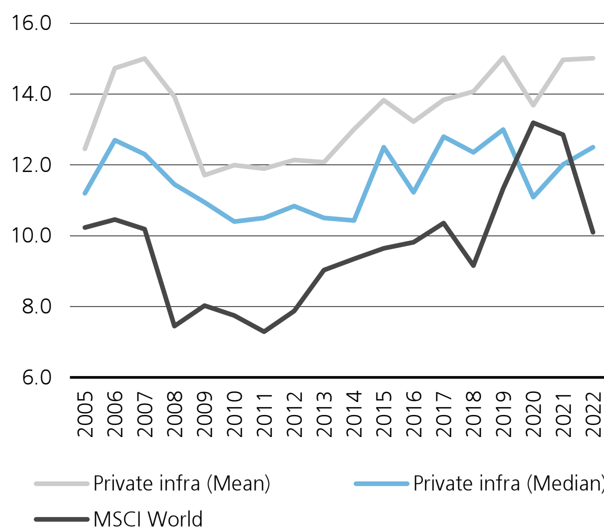
Source: MSCI Global Quarterly Private Infrastructure Index, June 2022
Note: 2022E is based on annualized 1H22 data. Expected / past performance is not a guarantee for future results.

The rising cash yield suggest that near-term earnings are exhibiting strong inflation pass-through, although as discussed in Lesson 2, factors such as demand destruction could put a cap on this. On the other hand, diminishing capital returns show that there is risk to growth strategies, which we also discussed in Lessons 2 and 4. Finding the right balance across cash yield, inflation passthrough, and long-term growth is the key. Investors can no longer count on cheap financing to support returns, and we believe that there will be greater divergence in performance across different infrastructure assets moving forward.

EDHEC's private infrastructure index was -5% for the first nine months of 2022, and is still significantly outperforming public markets. 3Q22 was relatively flat vs 2Q22, indicating some stabilization after initial weakness. EDHEC's valuation methodology is more reliant on changing discount rate assumptions, which explains why it is more negative than MSCI or Burgiss.

We track the private infrastructure EV/EBITDA transaction multiples (Figure 14) based on over a thousand data points over the years. Both mean and median private infrastructure multiples actually remain elevated, despite the significant decline in public multiples. As discussed, this explains why valuations and performance remains strong for private infrastructure, although the risk is skewed to the downside.

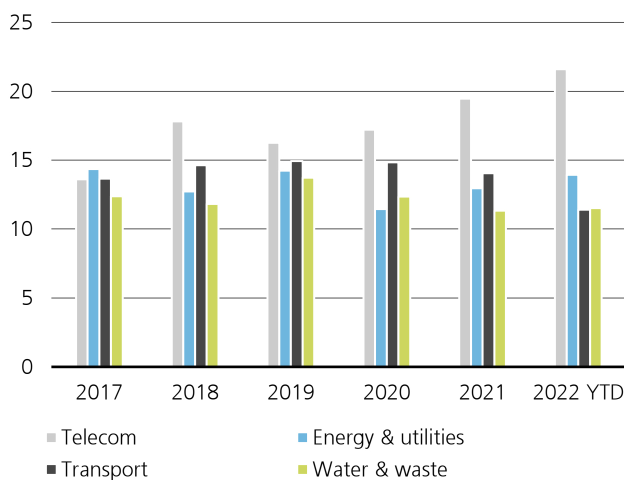
Figure 14: Private and public EV/EBITDA multiples
(EV/EBITDA multiples)



Source: UBS Proprietary Database; Mergermarket; InfraNews; Bloomberg, November 2022

If we break down the valuation multiples by sector, we are also seeing a divergence in trends. For example, telecom deals fetch higher multiples because of their earnings growth potential (see Figure 15). Meanwhile, energy is finding support from high commodity prices. On the other hand, transports have seen some derating.

Figure 15: Private infrastructure EV/EBITDA multiples by industry (EV/EBITDA multiples)



Source: UBS Proprietary Database; Mergermarket; InfraNews; Bloomberg, November 2022

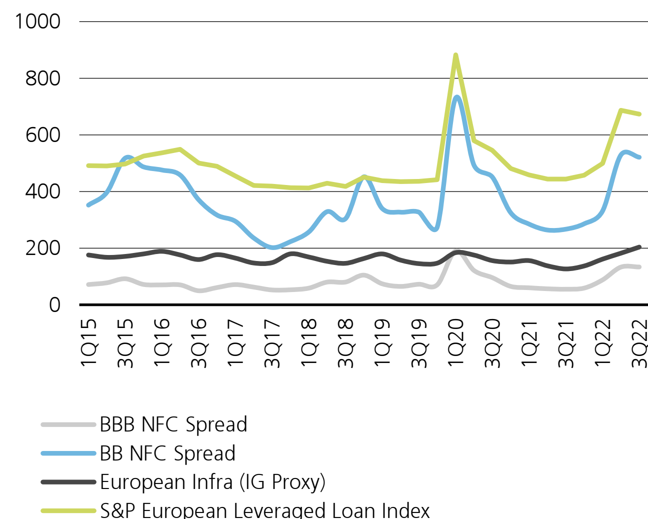
We believe that the investable universe for infrastructure will continue to increase, especially on the back of the Inflation Reduction Act, the global energy crisis, and increased potential for take-privates. In addition, fiscally constrained governments will also need to rely more on private capital to fill the funding gap for infrastructure.

However, if fundraising begins to falter (as discussed in Lesson 2), we could start seeing declines in dry powder for the first time since 2014, which will impact infrastructure valuations and also performance.

Infrastructure debt
Rising base rates and spreads are positive for the relative attractiveness of infrastructure debt strategies. Total returns for senior infrastructure debt in Europe have increased by around 3% YTD to 5-6%, comparable with core infrastructure equity returns.

Public market spreads for European BBB non-financial corporates have increased by around 70bps YTD, while high yield credit has risen by around 185bps. Private market spreads adjust to reflect public markets with a lag, provided the spread increase in sustained.

Figure 16: Spreads on private infrastructure debt (basis points)

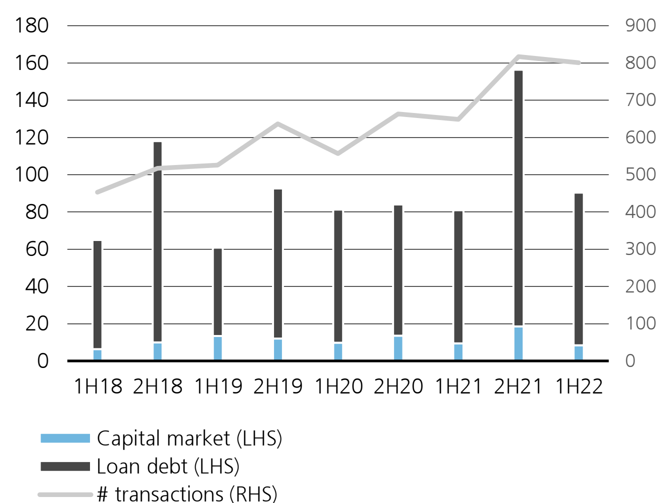


Source: Bloomberg; EDHEC Debt Indices (Europe); S&P European Leveraged Loan Index; UBS Asset Management, Real Estate & Private Markets (REPM), September 2022

The higher cost of debt may impact the volume of transactions as the attractiveness of refinancing reduces. Sponsors may also revise capex/rollout plans if the levered economics no longer meets their return-on-investment hurdles.

2021 was a record year for European infrastructure financings. 1H22 was around 11% higher than 1H21, however, we expect volumes for 2H22 to be lower relative to 2021. As for infrastructure equity, we think demand will be strong for defensive businesses with the ability to pass through higher costs.

Figure 17: European infrastructure debt (USD billions)



Source: Infralogic, November 2022

Conclusions

Private infrastructure has seen record fundraising, strong performance and steady valuations in 2022. However, investors should not be complacent, as we see more risks in the market in 2023.

Investors can no longer rely on cheap credit to deliver investment returns. There will be greater divergence across winners and losers, and those who want to thrive will have to go back to the basics – robust business fundamentals, rigorous investment analysis, and active asset management.

Overall, the infrastructure industry will continue to see significant secular tailwinds from megatrends such as digitalization and decarbonization. But investors will need to be more realistic about their expectations, and analyze their current portfolios and future investments with greater scrutiny. Diversification will also become a key way to mitigate the uncertainties.

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