Infrastructure Strategic Outlook 2023

H2 2023 Market Update

IN A NUTSHELL

- With inflation becoming more benign and the interest rate environment looking more stable, the focus for infrastructure performance will be shifting towards how assets can deal with the softer demand picture presented by slowing economic growth. Assets with the ability to quickly capitalise on the inflationary environment as well as having strong downside protection are best placed to outperform.
- The slowdown in both transaction activity and infrastructure fundraising will be relatively short-lived and positive momentum should build into 2024. Driving this will be the strong performance of the asset class in recent years, the desire of investors to increase allocations, strong policy tailwinds in the sector and an unchanged value propostion relative to other alternative asset classes.
- As the Inflation Reduction Act's impact on the US market is becoming more apparent in terms of attracting investment interest into low carbon technologies, there are more questions over the attractivness of the European infrastructure market. Overall, the strategic importance of European infrastructure investments to maintain competitiveness, help cut emissions and to boost economic resilience, combined with a broader opportunity set of sectors and markets, gives Europe an edge.
- With a growing sophistication of guidelines and availability of data, along with the tightening of regulations and a more demanding pool of investors, ESG will remain central to infrastructure businesses. The investor association which runs the Net Zero Asset Managers initiative released guidance for infrastructure assets[1], which is likely to help asset managers and asset owners strengthen their activities in this area.

Infrastructure Strategic Outlook 2023 – Market Update

Full cycle of economic forces testing infrastructure’s characteristics

By the end of 2023 infrastructure will have been tested by a full cycle of economic pressures, with the asset class's defensive characteristics truly put to the test. As expected, the market has slowed as the lagged impact of paused investments in the peak of volatility in 2022 feed through into fewer deals closing in 2023, but infrastructure's financial performance has remained solid. In the context of a robust performance year-to-date and stronger-than-ever tailwinds for the sector in terms of policy support, the slowdown in fundraising and transaction activity should be relatively short-lived, with the 2024 outlook likely seeing a return to positive trends.

[1] IIGCC March 2023 https://www.iigcc.org/resource/guidance-for-infrastructure-assets-nzif/

1 / Macro Update

With inflation becoming more benign, the focus will shift to downside protection characteristics as economies slow.

1.1 Growth Eroded by Tighter Market

The macroeconomic outlook for Europe and the US remains mixed, with the focus for infrastructure investors and asset owners shifting from inflation pass-through characteristics to downside protection. Economic growth will be constrained by the high-rate environment and with inflation set to remain above 2% targets it is unlikely that the European Central Bank, Federal Reserve or Bank of England will undo their work to try and tame inflation by cutting interest rates before 2024. As a result, economic growth in the Eurozone, UK and US will struggle to break 1% in real terms over 2023 and 2024.

Chart 1: Real GDP Growth (Top), Central Bank Policy Rates & Consumer Price Index (Bottom) Forecasts

Source: Oxford Economics, Macrobond, DWS. Note: Q2 2023 onwards represents forecast data. Past performance is not a reliable indicator of future returns.

In this environment the key economic message is that while questions around when, where and for a how long markets may experience negative economic growth in 2023 and 2024 continue to be asked, any recovery there will be weak rather than the boom that came following the pandemic. Some markets have been more resilient than expectations and higher frequency data releases continue to show strength in areas such as labour markets, but as the higher interest rate environment begins to bite, demand will soften. In particular, risks are weighted to the downside for the UK and US economies given the prominence of those housing sectors have in driving the broader economy.

1.2 Political risks remain despite strong climate-energy infrastructure stimulus

Politically, the policy environment remains extremely constructive for infrastructure investors on the back of 2022's REPowerEU policy significantly boosting clean energy transition opportunities in Europe as well as the Inflation Reduction Act in the US. For instance, we have previously examined the opportunities in electric vehicle charging infrastructure and how the market is evolving considering the improving regulatory environment.[2]

However, two key risks remain for asset owners, namely labour relations, and regulators' sensitivity to the cost-of-living pressures. Strike action and pay disputes have impacted a number of markets in European and North American infrastructure including aviation, ports, rail and healthcare. Given inflationary pressures remain and wages are a core component of that, it is likely to remain a challenge for infrastructure businesses for the foreseeable future, especially given difficulties some sectors have experienced in hiring.

As a key driver of regulated asset performance, there will be continued pressure from regulators on the pass-through of inflation to consumers given it has become a significant political issue in many markets. There is already anecdotal evidence that tariff increase requests have either been diluted or denied by regulators who are sensitive to consumers ability to afford essential services like water, power and healthcare. Noting the required levels of investment in areas like the grid network from the private sector in the coming years, it is unlikely that regulators will be too harsh in limiting profitability, but certainly assets impacted may see a delay in how quickly they can recoup costs from higher inflation.

[2] https://www.dws.com/insights/global-research-institute/transforming-transportation/

2 / Market Update

Unlisted infrastructure equity has weathered the higher rate and inflationary environment well, with assets able to employ strong levels of inflation pass through and benefitting from having often long-dated debt profiles.

2.1 Performance Dictated By Business Flexibility

Unlisted infrastructure equity has continued to perform well over the first half of 2023, with total return of the EDHEC Infra300 Unlisted Infrastructure Equity Index standing at 9.5% year-to-date as of the end of May. This builds on the 3.83% y-o-y total return the Infra300 achieved over 2022, which while below historical return levels still represents one of the more attractive performances within alternative asset classes. The Infra300 benchmark, which uses a mark-to-market forecast methodology to price a diverse basket of private infrastructure companies using reported financials has seen annualised total returns and volatility of:

Table 1: EDHEC Infra300 Unlisted Infrastructure Equity Benchmark Performance

	Annualised Returns	Volatility
3YR	10.35%	10.20%
5YR	9.48%	10.24%
10YR	11.81%	10.43%

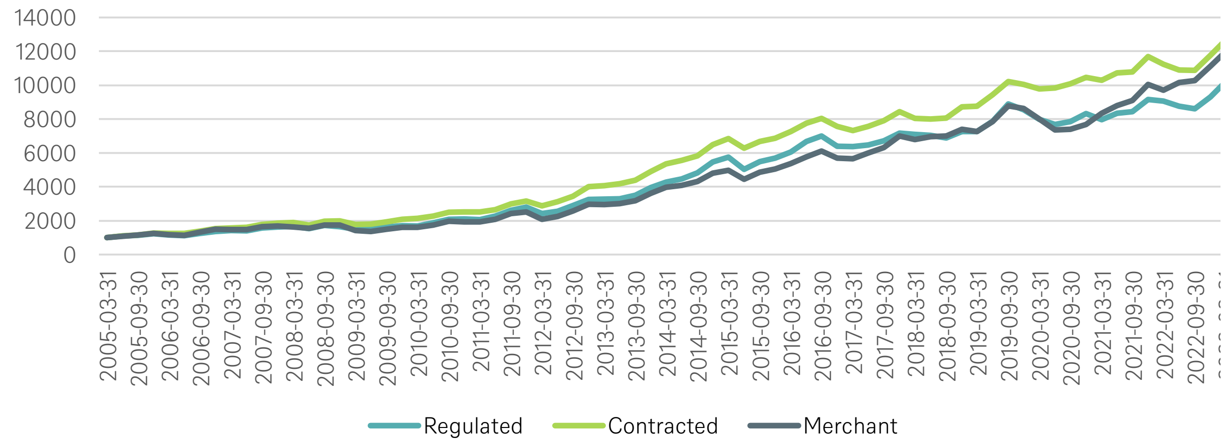
Source: Scientific Infra, June 2023

With a 3-year sharpe ratio of 1.02, the Infra300 unlisted infrastructure equity benchmark's low volatility return profile does warrant further scrutiny given the performances of many other asset classes were adversely impacted by the significant market turmoil. Investor’s assumptions around inflation and interest rates sensitivity will have been tested significantly post-pandemic, with each asset's performance drivers being impacted according to the nature of the cash flow model, capital structure and level of regulation.

Merchant assets drove much of the performance over 2022. Accounting for 26% of the benchmark, those assets which sell their services on the open market saw a total return of 23.4%% over a 1-year horizon and 7.6% over the first quarter of 2023. Tellingly, energy prices have fallen significantly over 2023 and the performance of merchant assets have followed, highlighting these assets being the key beneficiary of the 2022 energy price spike. Merchant assets will be most exposed to the economic slowdown and subsequent softening of demand in the remainder of 2023 and into 2024.

Regulated assets make up 26% of the benchmark and have benefitted to a lesser extent so far from the inflationary environment, with the time-lag for price increases in certain regulated sectors limiting the pace at which returns are boosted by inflation. While most regulatory jurisdictions have explicit inflation-linkage for tariff structures built in to protect investors, the speed at which these increases are implemented are not necessarily immediate. This leaves regulated assets less able to benefit from the inflation spike as seen in 2022, but investors will recoup this as the regulatory mechanisms take effect.

Chart 2: Global Unlisted Infrastructure Equity Indices, By Business Type

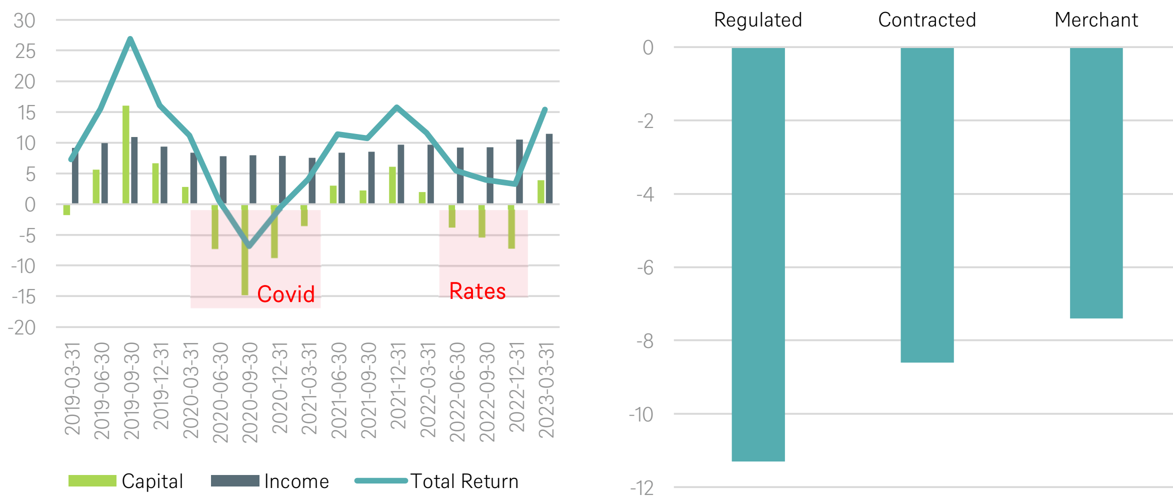


Source: Scientific Infra, June 2023. 01/01/2005=1000.

Contracted businesses remain well placed to benefit from the inflationary environment, while at the same time having more robust downside protection than merchant assets. Contracts for infrastructure are often index-linked, allowing for inflation pass-through more rapidly than regulated assets as contracts are renewed and renegotiated at expiry. Similarly, given the contracted nature of the service provision or offtake, given the economic slowdown that is expected over 2023 and 2024, there is greater visibility on business performance. While contract negotiations in a softening market will put pressure on prices, relative performance will be stronger than the merchant assets that will be immediately exposed to slower economic growth - although as infrastructure all assets should offer some downside protection when compared to many asset classes.

It is also possible to examine the components of total returns within the Infra300 to better understand how assets have performed. As expected, given the cash yielding essentiality of infrastructure businesses, income return, i.e. cash yield, has seen very stable growth throughout the periods of the pandemic and 2022. It is also possible to see how income growth has ticked upwards over the last year as the asset class's inflation passthrough credentials have borne out.

Chart 3: Global Unlisted Infrastructure Equity Index Total Return, % YoY (LHS), Change in NAV due to interest changes, 1-year Average (RHS)



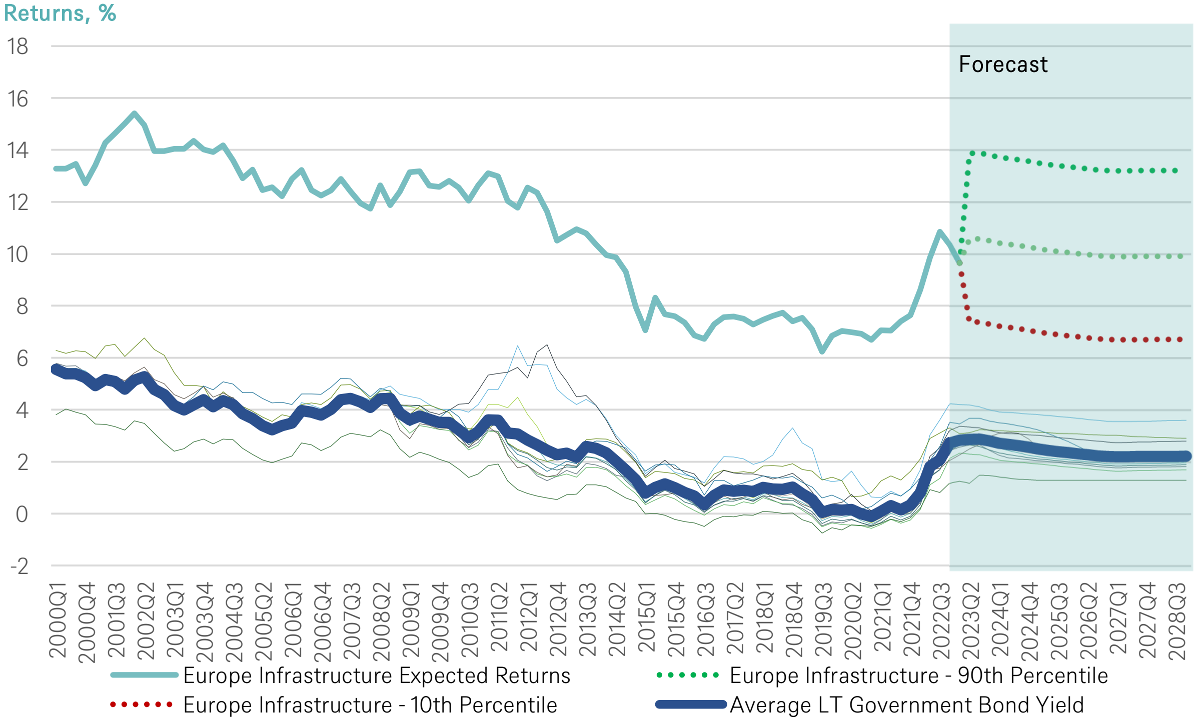
Source: Scientific Infra, June 2023

Capital return, which represents the Net Asset Value (NAV) of the assets within the benchmark, has declined over two periods within the last 5 years; firstly during the pandemic driven by fundamental disruptions to infrastructure operations; and secondly during the 2022 rate hiking cycle. How capital return of an asset is impacted will depend on the business structure. The main channel where interest rates reduce valuations is through creating a higher risk-free rate component of the discount rate used in discounted cash flow models. Without boosting cashflows to offset this higher discount rate there will be a negative impact on valuations, and this has been seen most in regulated assets, again due to the slower pace at which cash generation can be boosted given set regulatory tariff periods. Conversely, merchant assets and their ability to reprice quickly have seen their cashflows boosted by the inflationary environment which to a greater extent offset the now higher discount rates, leading to a less negative impact on their capital value.

2.2 Expected Returns Back to Double Digits

Looking forwards, expected return signals for unlisted infrastructure have risen over the first half of 2023, in line with the recovery of long-term government bond yields. Chart 4 shows the expected returns for European unlisted infrastructure equity and a basket of European long-term government bond yields from EU and Nordic markets, as well as the UK. Historically, there has been an 8-9% premium to the average bond yield for European infrastructure expected returns. On that basis and utilising forecasts for government bond yields over the next five years, average expected returns for Europe infrastructure currently stand at 10-11%, with the higher returning Value Add strategies able to achieve in the region of 13-14% and the core and super-core strategies returning 6-8%.

Chart 4: European Long Term Government Bond Yields, %, European Unlisted Infrastructure Equity Expected Returns, %

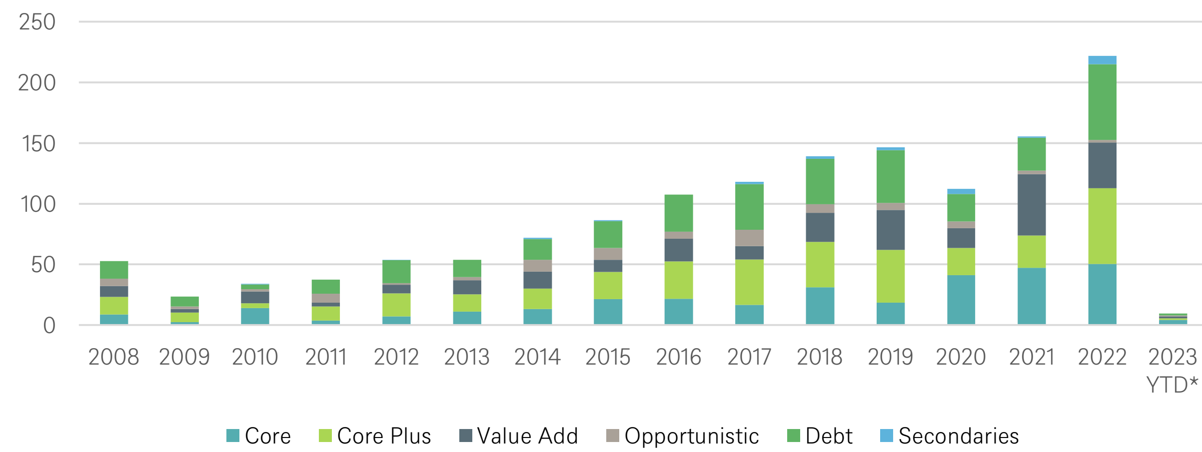


Source: Macrobond, Scientific Infra, DWS. LT (10yr) Government Bond Yields Average includes: EU, Nordics, UK. Forecast returns based on DWS Infrastructure research on historical unlisted infrastructure equity premiums and forecasts for LT government bond yields. Past performance is not a reliable indicator of future returns.

2.3 Fundraising Under Pressure

As was noted in our 2023 Strategic Outlook, this year was set to be a challenge for fundraising given the volatility-driven caution that had taken hold in the market. However, the extent of the slowdown has been significant. While part of the story behind infrastructure's limited fundraising success could be driven by 2021 and 2022 being record-breaking years for capital raising in the sector, it is more likely driven by market caution. The denominator effect and subsequent significant recalibration process required within many portfolios, combined with the repricing seen in real estate markets, has seen broad apprehension around allocations in 2023. Further, with a more attractive risk-free rate now available, lower-returning super core and core strategies across the board will look comparatively less attractive.

Chart 5: Infrastructure Fundraising by Strategy, USDbn



Source: Preqin Pro. *As of June 29 2023

Markets have now settled somewhat and investor surveys point to a continued desire to increase allocations to infrastructure, so fundraising in the sector should tick upwards towards the latter part of 2023 and certainly in 2024.[3] Infrastructure also stands to benefit from a more clear trajectory when compared to real estate, within which many sub-sectors and markets have faced a fundamental value proposition change following the pandemic.[4]

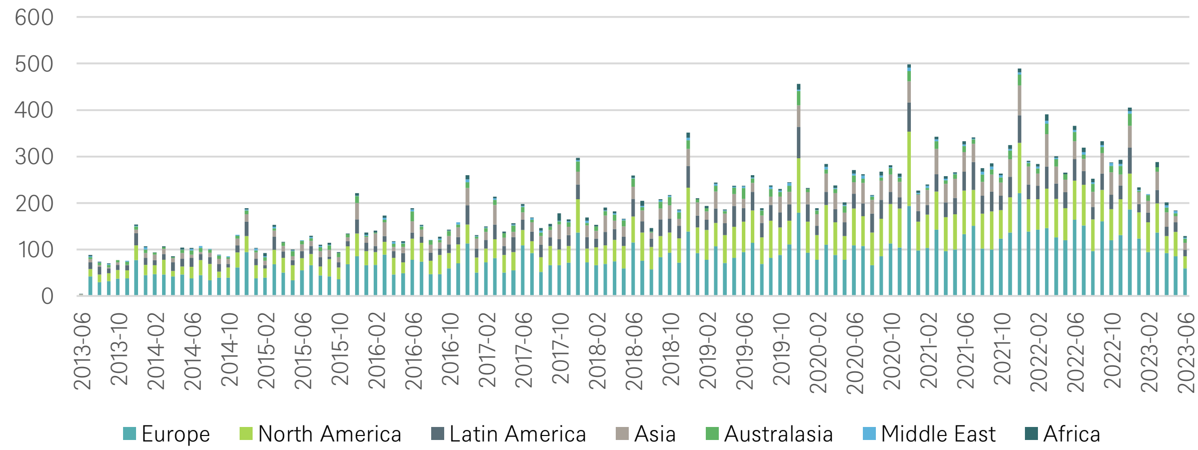
2.4 Transaction Activity Slows

For private market infrastructure transactions, 2023 has also seen a slowdown in activity. Following a busy 2022 the market has now slowed to below the 10-year monthly average for closed deals. The economic volatility in 2022 and the continued uncertainty around rate hikes in early 2023 resulted in significant implications for valuation models and resulted in decisions being paused and that lagged effect will continue to see fewer transactions close across the first half of the year with activity likely to pick up towards the end of the year.

What is noticeable is that of each region globally the strongest slowdown we've seen is in the North America region driven largely by the fact that the US is a leveraged finance market where the rate hikes have had a significant impact on activity, while activity in Europe has remained relatively robust in line with our view that Europe will remain the hotbed of activity with regards to unlisted infrastructure deals.

[3] HodesWeill & Associates, Institutional Allocations Monitor, June 2023
[4] DWS, Global Real Estate Strategic Outlook – First Quarter 2023, February 2023

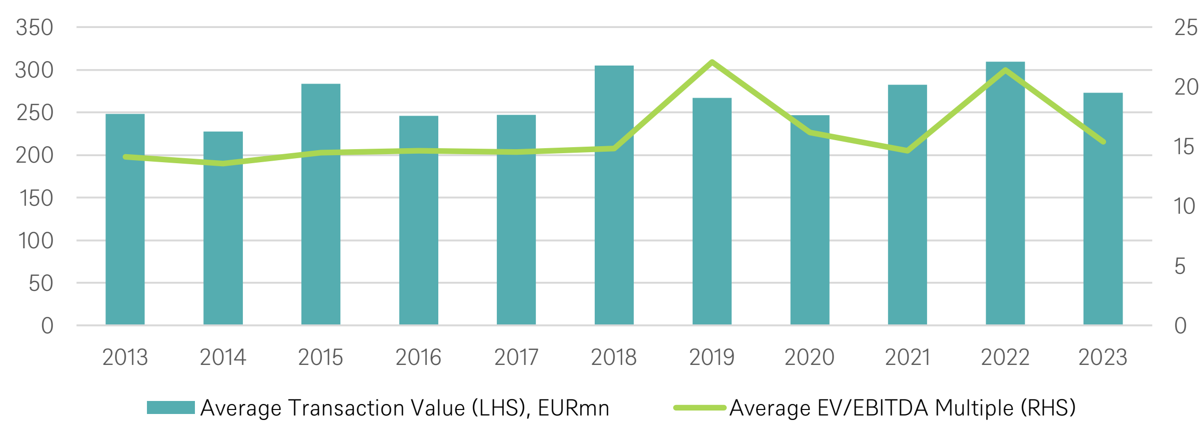
Chart 6: Monthly Closed Infrastructure Transactions, Volume



Source: Infralogic, June 2023

Deal valuations remain a key area of concern for investors given their impact on returns and the widespread reporting of overvaluation within the private infrastructure market. While data on transaction multiples achieved is patchy, overvaluation in the market as a whole is not evident. Certainly, select sectors such as renewables and digital infrastructure and select assets within those sectors have seen a trend for significant amount of capital inflows and demand leading to record-high valuations. However, average EV/EBITDA multiples achieved so far in 2023 suggest that deals are closing in line with historical averages, with the economic pressures and market slowdown leading to speculative pressure on valuations in the market to dissipate. There will remain upward pressure on valuations from significant dry powder in the market but given the renewed focus of investors on risk-return ratios and a growing number of investment opportunities alongside higher fundraising, there will be a limit to that upside.

Chart 7: Annual Average Closed Infrastructure Transaction Value & EV/EBITDA Multiple



Source: Infralogic, DWS proprietary data set of closed infrastructure transactions. Calculated based on 696 closed transactions across all infrastructure sectors.

3 / Investment Outlook

Our core themes for the year remain the opportunities within the transformation of the European economy through infrastructure investment and the continued evolution of the opportunity set within the energy transition sectors, with the evolution of fund strategies benefitting from both trends. Two other key questions have emerged which feed into these areas; how does the opportunity set in Europe compare with that on offer in the United States; and how does the continued integration of ESG into infrastructure impact the growing number of opportunities?

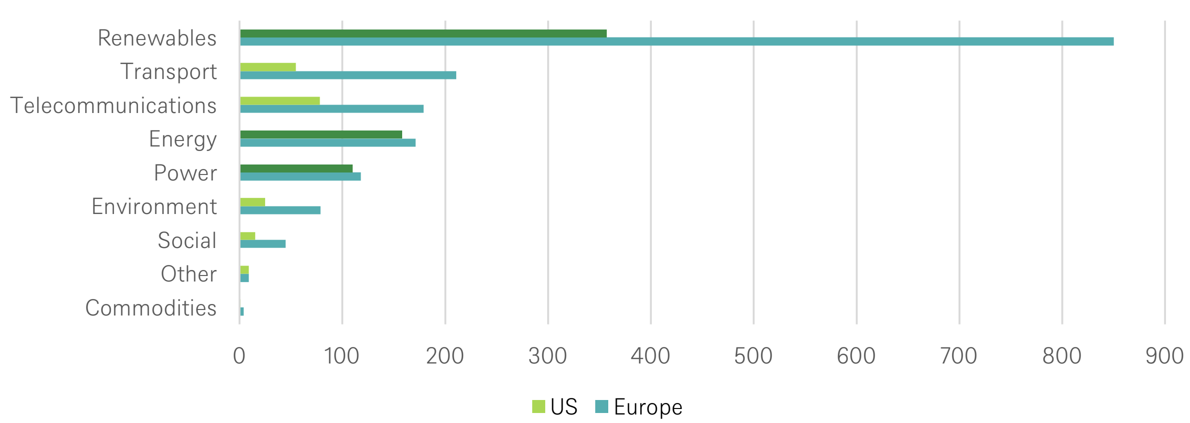
3.1 Europe Offers a Greater Potential For Diversification

Europe and the US are the core of the global unlisted infrastructure market, being the destination for the majority of global assets under management targeting infrastructure and the majority of transactions within the sector. The implementation of the Inflation Reduction Act in 2022 has catapulted the US to the top of many investor watch lists given the attractive financial incentives it offers, but overall, there are notable differences between the markets which sees Europe offer a more compelling market.

— **A more mature regulatory landscape.** Despite efforts from both Obama and Trump administrations to pump money into infrastructure, it has only been the passing of the Inflation Reduction Act in 2022 that has created significant interest in the US market as a whole. Select states in the US have had success in developing their P3 (PPP) markets and others have emerged as renewable energy hubs in recent years, but it has been difficult to transfer success from state to state. Comparatively, in Europe the European Union has acted as a centralised body to both provide capital but also set regulatory standards and streamline areas such as standards for procurement, leading to huge investment in infrastructure. Crucially, much of the EU's fiscal support is provided to assist in de-risking assets to allow private investors to invest.

— **A broader opportunity set.** Over 77% of infrastructure transactions closed in the US over 2022 were related to energy. Comparatively, 68% of Europe’s transactions were in the same sectors and this figure is elevated by the huge number of renewable energy deals closed in recent years, whereas in the US oil and gas related assets made up a higher proportion. Across transportation, telecommunications, environmental management assets like water and waste as well as social infrastructure, Europe offers significantly greater investment choice. Europe also allows for greater geographical diversification than the US, with each market able to pursue its own fiscal expenditure and reforms to attract private capital.

Chart 8: Europe & US Closed Infrastructure Transactions by Sector, 2022



Note: Energy = oil and gas. Power = conventional thermal and grid infrastructure. Source: Infralogic, June 2023

— Fiscal Support
  — US: The IRA is unprecedented in two regards; first and foremost, the 10 years visibility that investors have on the regime they will be operating in; and secondly that the tax credit system is comparatively simple to access. The key provisions of the IRA include generous tax credits, grants, loans and other incentives for production of and investment in clean energy (incl. renewables, nuclear and hydrogen), clean vehicles and clean fuel production, energy efficiency measures, and development of carbon capture and direct air capture projects. The IRA also contains provisions for government investment in low-carbon materials procurement, biomass, carbon removal and forest management, a programme for advanced emissions reduction from energy-intensive industries, and research.
  — Europe: In comparison, the European infrastructure funding landscape is significantly more complex to navigate, given the multiple funding streams that are offered across national governments as well as from different initiatives within the EU. That said, EU funding is supportive of a much broader infrastructure universe than the IRA, meaning that the EU's multi-annual financial framework (EUR1.2trn), the NextGenerationEU (EUR806.9bn) recovery fund and REPowerEU (an additional EUR25bn to NGEU) all offer billions of euros to businesses across the infrastructure spectrum, with the focus being on developing low carbon, digital sectors.

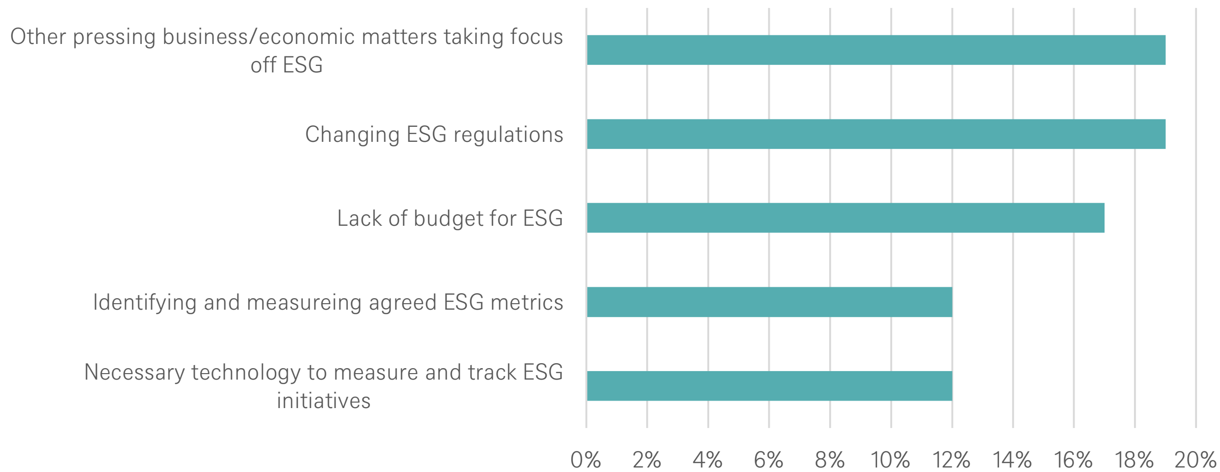
3.2 ESG Remains Key to Infrastructure Strategy

ESG's ascent to becoming standard business practice faced pressure over 2022 and into this year, but for European businesses at least it will continue to dominate long-term strategic decisions. One of the key tensions around the growth in ESG is between short-term returns and longer-term capital expenditure and climate or sustainability goals, which could lead to conflict between investees and investors. This despite numerous studies showing a strong ESG profile can reduce costs of capital, better retain employees and customers, and improve resilience of businesses; ultimately translating through to positive financial performance.[5]

That being said, as the global economy enters a period of slower growth in 2023, questions will continue to be asked as to whether allocating resources to ESG at a time of economic turmoil is prudent. Indeed, the KPMG 2022 CEO Outlook highlighted that 42% of CEOs in the UK planned to pause or reconsider ESG efforts over the first half of 2023 as a result of economic concerns.

[5] Gunnar Friede, Timo Busch & Alexander Bassen (2015) ESG and financial performance: aggregated evidence from more than 2000 empirical studies, Journal of Sustainable Finance & Investment, 5:4, 210-233

Chart 9: Top 5 Challenges to Delivering ESG Strategy, % Agree



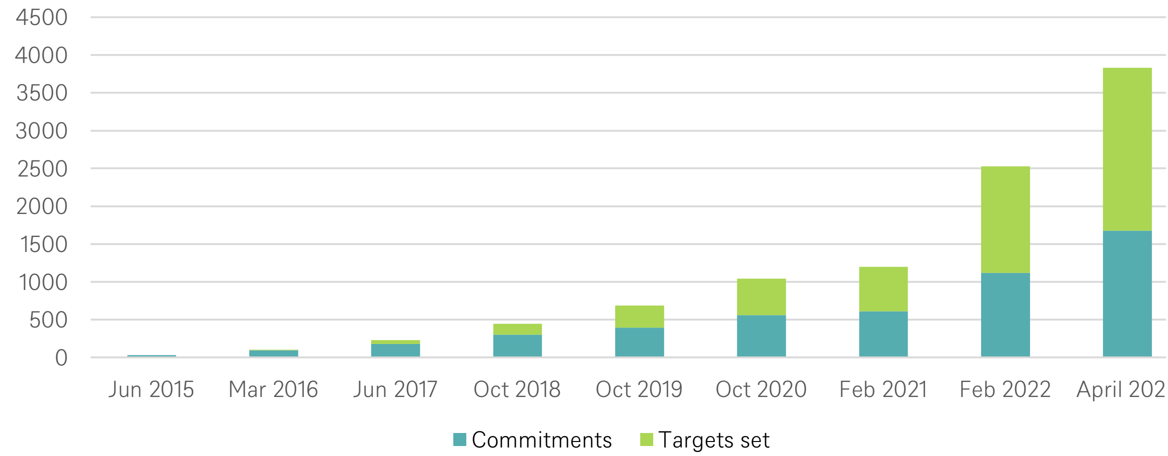
Source: KPMG 2022 CEO Outlook

In addition to this economic pressure ESG will face in the year ahead, of similar concern is the political push-back emerging in the U.S.A, with the messaging around ESG being focused on financial performance and prudent risk-management being mixed with an increasingly fragmented and confrontational political climate.

Whether economic or political, overall ESG in infrastructure will weather these short-term concerns given the linkage with financial performance first and foremost, but also due to the criticality that good ESG governance and asset management has to upcoming tightening of reporting regulations in areas such as emissions and an increasingly demanding pool of investors with targets to meet across a range of ESG metrics. If there is any rollback in ESG focus, I think we will find it more in how certain processes are labelled within the monitoring of E, S and G realms, rather than those issues no longer being material.

2023 and the years ahead will actually be crucial for ESG action, as an increasing number of markets globally are establishing sustainable investment taxonomies and regulatory reporting requirements continue to tighten, such as the issuance of the IFRS Sustainability Disclosure Standards in June 2023. This comes at the same time as investors and corporates alike are having to think about how to practically implement the ESG targets that have been set in recent years, such as the Net Zero Asset Managers (NZAM) commitment to make their portfolios net-zero emission by 2050. According to data from the Science-Based Targets Initiative (SBTi), 2569 companies have committed to carbon emission reduction targets putting them on clearly defined path to reduce emissions in line with the Paris Agreement goals and as such, actions and investments are going to be required to start the journeys along those pathways. Along with the Taskforce for Climate-Related Financial Disclosures, or TCFD, there is a growing standardisation of reporting best practice which is slowly addressing one of the key barriers to action, which is a lack of quality and quantifiable metrics to work with.

Chart 10: SBTi Membership, No. of Companies with Commitments and Targets

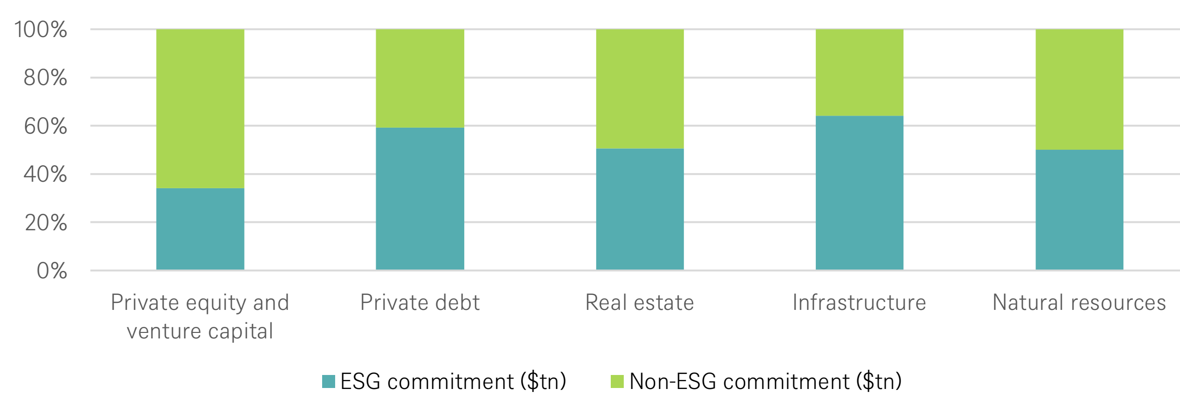


Source: SBTi

Given this greater availability of data, along with the implementation of the Sustainable Finance Disclosure Regulations (SFDR) for asset managers active in Europe and the upcoming Corporate Sustainability Reporting Directive (CSRD) for companies, how firms are performing from an ESG perspective will become more transparent than ever before and the laggards are going to be more exposed.

The good news for infrastructure is that the long-term nature of private infrastructure capital is a key avenue for investors to realise ESG-related value creation, given its ability to weather the short-term concerns that impact public markets and actually help implement long-term ESG strategies. This is particularly important given infrastructure has the highest share of its AUM with ESG commitments of all the alternative asset classes, which emphasises the critical nature of the improvement in ESG reporting standards and data availability. Further, over a third of LPs in Europe and 40% of those in the US expect their own ESG reporting standards to increase, putting the onus on GPs to ensure they are able to provide adequate data.[6]

Chart 11: Private Assets - ESG Commitments, % of Total Value



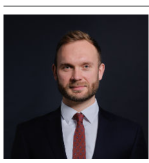
Source: Preqin Pro, June 2023

[6] PwC, GPs' Global ESG Strategies: Disclosure Standards, Data Requirements and Strategic Options, 2023

Likewise, the growth of green taxonomies will give greater clarity on what activities do and do not classify as sustainable, further allowing investors to focus on positive impact. For infrastructure, the EU taxonomy – which is classed as the global benchmark – allows for most business activities but many fall under transitional activities, meaning investment will be required to make the business more sustainable going forwards. This will drive the requirement for firms to not only begin to track and quantify their operations from an ESG perspective, but also invest in addressing underperformance relative to peers and industry standards to remain attractive to investors.

Ultimately, the flow of capital towards positive ESG investments and away from ESG laggards will be the key conduit of change. The culmination of regulatory requirements, ESG commitments and a maturing of the reporting landscape will see much progress made in 2023 in terms of quantifying and making public the current status of many ESG factors, which then sets out the pathway greater environmental sustainability, social equity and governance transparency.

AUTHORS



Richard Marshall
Head of Research, Infrastructure

Important information