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Paving the way: Private infrastructure opportunities in a changing world

Private markets

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- With megatrends shaping the next decade, private infrastructure assets are increasingly attracting investor interest beyond tradtional institiutional participants.
- Investing in private infrastructure can enhance the income potential and bring diversification benefits to a private markets portfolio.
- Private infrastructure investments could provide exposure to long-term opportunities across digitalization, the energy transition, and onshoring efforts in transportation.

From roads and commercial ports to electricity access, data, and social connectivity, infrastructure assets are the lifeline of the global economy. As the next decade is likely to be shaped by secular trends, these assets are increasingly attracting investor interest for long-term opportunities. The digitalization trend, driven by AI, hinges on significant investments in data centers. Decarbonization demands approximately USD 2.6 trillion in green infrastructure investments annually. Additionally, a deglobalizing world is pushing for onshoring efforts and boosting investments in logistics and transportation infrastructure.

Infrastructure investments are now more accessible to private market investors beyond traditional institutional participants. Including infrastructure in a private markets portfolio can enhance its income potential and improve diversification, given its low correlation with other asset classes. Its long-term nature supports the development of essential components for secular trends, offering resilient returns across business cycles.

Resilient returns across core sectors

Over the past 10 years until end of 2023, infrastructure investment delivered 10.8% annualized returns, compared to global equity returns (MSCI ACWI) of 5.9%, and 0.4% for global aggregate bonds (Bloomberg Global Aggregate Unhedged). The asset class benefited from inflation in 2022, returning 10.4% in a year when global equities declined 19.8%. Looking at more recent private infrastructure performance, returns have held up steadily while other private asset classes have been more subject to volatility. Real estate assets in particular have experienced acute challenges in recent quarters (Figure 1), while private infrastructure remained resilient. Much of this can be attributed to infrastructure's lower sensitivity to the global economic cycle, and because of stable and inflation-linked cash flows. We expect these defensive qualities to continue to draw investors to the asset class.

Across core sectors, observing deal-level IRRs between 2010 and 2023, median returns ranged from 9.0% to

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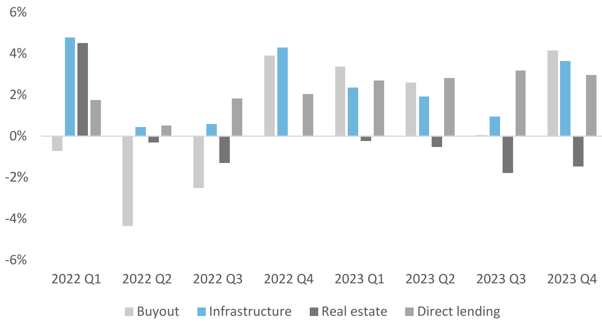
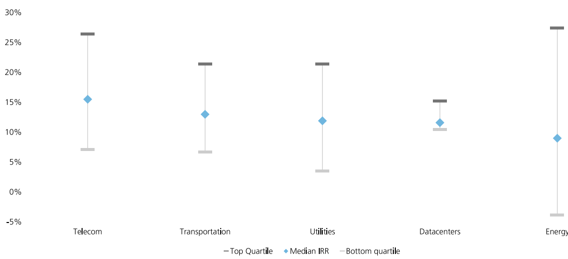
15.5%, with telecom standing out. Datacenters showed more modest median returns at 11.6%, but also the lowest dispersion across sectors. We believe sectors with links to secular trends and or tailwinds from government support will benefit in the future.

Figure 1: Quarterly returns across private markets



Source: Cambridge Associates Private Markets Benchmarks, Cliffwater Direct Lending Index until 4Q23, UBS, July 2024.

Figure 2: Deal level gross IRRs for private infrastructure by sector between 2010-2023



Source: Pitchbook, DealEdge, as of April 2024. Cannot be reproduced without specific permission from Bain&Co.

Fundraising focus beyond institutional investors

Infrastructure assets' connection to megatrends and their robust performance during periods of high inflation have captured investor attention in 2023 and early 2024. Strong interest in Q4 2023 brought the year to a close on par with 2020 levels, despite a broader slowdown in private market fundraising. This was primarily driven by two megafund closures at the end of 2023, which collectively raised USD 120 billion. Notably, a significant portion of recent fundraising has come from Asia, where trends like urbanization and rising domestic consumption are fueling interest and opportunities in infrastructure investing.

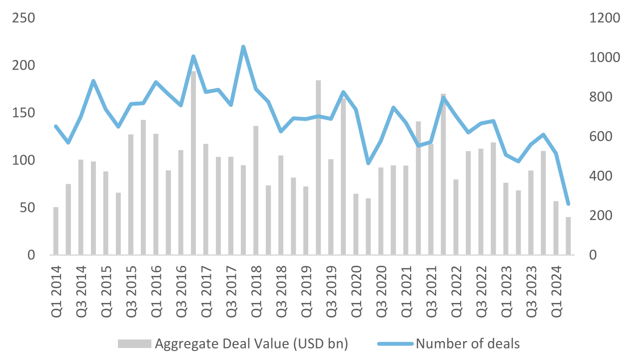
We anticipate continued investor appetite for infrastructure this year. PEI allocator survey data indicates that nearly 40% of institutional investors plan to allocate more to infrastructure assets in 2024. While private infrastructure investment was traditionally the domain of institutional investors owing to longer holding periods, recent fundraising trends have shifted. Wealthy individuals are increasingly interested in infrastructure, with the UBS Global Family Office report showing that 27% of family offices plan to increase their portfolio allocations. Before 2023, the survey indicated that family offices had no allocation to infrastructure, which they now hold at 1% and aim to maintain or expand their exposure. This can partially be explained by the emergence of perpetual funds giving access to the asset class.

Asset managers are also demonstrating their confidence in the asset class by acquiring infrastructure general partners (GPs). For instance, BlackRock's acquisition of GIP in early 2024 and CVC's purchase of DIF Capital Partners in 2023 highlight this trend. We remain confident that the fundraising environment for infrastructure will remain strong in 2024.

Valuations offer a better environment for deals

In terms of dealmaking, transaction data shows activity in line with average quarterly levels in 2023. Initial data from 2Q24, however, shows activity is picking up steam, indicating the second half of the year could see a higher level of deals. Private infrastructure deal value, however, shows a continued downwards trend (Figure 3), which could be explained by an unwillingness of sellers to transact owing to an expectation mismatch caused by the current cost of debt. The slower dealmaking could also be explained by investor focus on current infrastructure portfolios to manage the impact of the higher cost of capital.

Figure 3: Private infrastructure deal activity
(in USD bn)



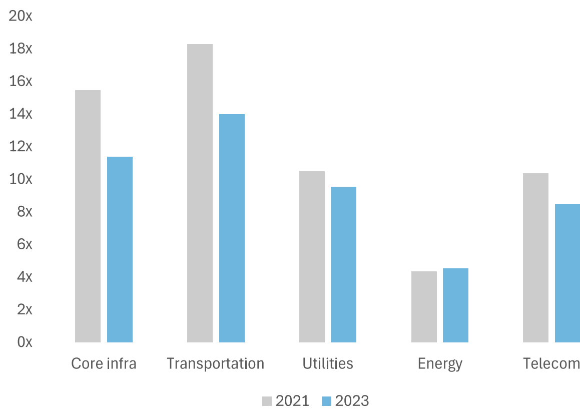
Source: Preqin, UBS, July 2024.

While infrastructure has shown resilience in recent years amid rising inflation, these assets are not entirely immune to higher rates. Higher cost of capital affects discount rates used, and a higher for longer regime is likely to pressure valuations. Indeed, looking at listed infrastructure (MSCI ACWI Core Infra), we see a decrease of 26% in TTM

EV/EBITDA valuations between 2021 and 2023 (figure 4). There are signs of stabilization this year, indicating that a bottom may have been found in in public valuations. Private infrastructure assets, particularly core, tend to be financed with long-term debt, typically fixed over 10 years.
This allows private infrastructure valuations to be more resilient to discount rates than equities.

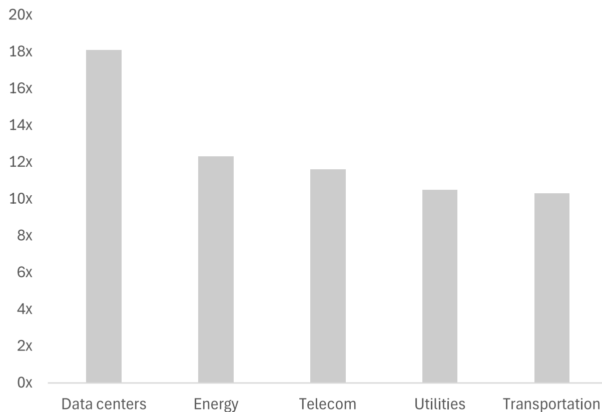
A stabilizing outlook on rates and inflation should help both buyers and sellers underwrite transactions. We think managers should be able to find opportunities in areas linked to secular trends, particularly in energy transition and telecom/digital.

Figure 4: Public equities sector vs public core infrastructure EV/EBITDA



Source: MSCI sector indices, MSCI World Core Infrastructure Index, MSCI World Transportation Infrastructure index, TTM EV/EBITDA. Bloomberg, UBS, July 2024.

Figure 5: Median deal level entry multiples across private infrastructure sectors
Median EV/EBITDA deal level multiples 2010-2023



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With infrastructure fundamentals remaining mostly resilient amid an otherwise volatile business cycle, and the expectation is for investor interest to remain strong, 2024 could prove an interesting year to invest. Infrastructure assets are mostly resilient to volatility in public markets and clarity on the macroenvironment should help drive investments, and managers can find opportunities particularly in areas linked to secular trends.

Sector deep dive

Long-term trends are providing plenty of opportunities for managers to deploy capital, particularly in areas like digital infrastructure and renewable energy, as well as transport and onshoring.

Digital infrastructure
Data usage across the globe is growing rapidly. This year alone, digital data generation is expected to be 1.5x higher than it was in 2022 (International Data Corporation). The digital value chain is largely housed by data centers, supporting the extensive load of new data generation, analyzing and refining, and sending data across transmission networks. Increased cloud migration by companies combined with the rise of AI are set to speed up this growth even further. Indeed, hyperscalers like Microsoft, Google, and Meta have planned to invest more than USD 140bn in AI server infrastructure in fiscal 2024.

These developments also require technological advancements to ensure energy efficiency and adequate cooling systems. Efficient cooling is required for data centers to function optimally, as overheating can lead to downtimes and even shutdowns. New technologies include immersion cooling for servers to disperse generated heat, or waste-heat applications to use heat from data centers for district heating. Development in these areas requires significant collaboration between manufacturers, infrastructure owners, and local governments.

Further areas are also set to benefit from the digitalization trend. According to Ericsson's Mobile Data Traffic Outlook, mobile network traffic is expected to triple by the end of the decade. More towers and wireless infrastructure are required to support the continued rollout of 5G connectivity, while also fixed networks require upgrading and further fiber rollout.

For investors, we believe digital infrastructure offers a valuable opportunity. Data connectivity has become part of critical infrastructure in recent decades and continues to exhibit strong growth fundamentals. The area is also much exposed to similar tailwinds the broader technology industry is enjoying through the digitalization megatrend and AI, without directly investing in operational technologies, as infrastructure generally applies more mature business models and provides the building blocks required for new

technologies. Moreover, datacenters show core+ type of returns. Using data from DealEdge, Datacenters showed deal level IRRs ranging between 10.4% and 15.2% for deals between 2010 and 2023. Managers developing assets could see returns ranging higher.

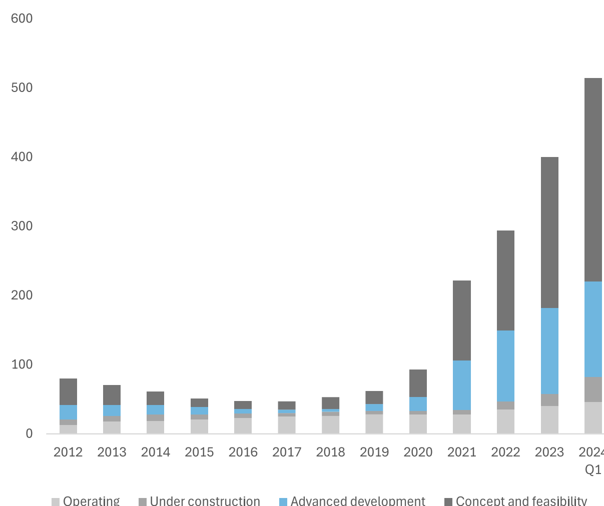
Energy transition

The digital revolution, driven by the boom in AI, is further fueling the demand for energy. In the United States alone, this development could increase energy demand by as much as 20% by the end of the decade. Data centers, essential for AI operations, require significant cooling, which accounts for about 40% of their energy consumption. This surge in energy demand, coupled with government and corporate commitments on sustainability and the transition to a low-carbon economy is likely to spur growth in renewable energy generation, power grids and storage, provided that energy supply can keep pace with demand.

For investors, renewables remain a key focus. Businesses are increasingly committing to decarbonization, with science-backed targets. By the end of 2023, companies with such commitments represented 39% of the global economy by market capitalization, according to the Science-based Targets Initiative. Additionally, competitive dynamics have shifted in favor of renewables, with reduced competition from oil and gas. The decreasing cost of renewable technologies has made clean energy more affordable than fossil fuels in many markets, with the levelized cost of clean energy declining by over 50% since 2009. Consequently, in the United States and the European Union, the share of renewables in the electricity mix surpassed 35% in 2023, according to Ember. The return profile for renewables ranges from approximately 8% to 13% (Goldman Sachs Asset Management).

Beyond renewables, a successful energy transition will require battery capacity and clean hydrogen production. Currently, China is the largest energy storage market, followed by the United States, with US battery capacity crossing the 18Gw mark in the first half of this year (BloombergNef). Both Europe and the US enjoy government support to provide incentives for clean hydrogen production, and supply will likely increase 30-fold by 2030 according to BloombergNef. Uncertainty, however, remains around demand in emerging applications, lack of clarity in support, availability of funds, and the development of physical infrastructure. Finally, a growing sector enabling the energy transition is carbon capture, currently including over 700 projects for capture, utilization, and storage (CCUS). Capacity increased by 35% in 2023 and will play a key role in decarbonization, particularly in emission-intensive industries. To meet current net-zero targets, global CCUS capacity should grow over 100x over the long run (McKinsey). Tax incentives like carbon credits, subsidies, and price-support mechanisms could support this development.

Figure 6: The carbon capture project pipeline has increased 4.5x since 2020



Source: IEA as of July 2024, UBS.

Policy implications for the energy transition

The energy transition attracts substantial investor interest and government support worldwide, exemplified by the Inflation Reduction Act in the US and the European Green Deal in the EU. At the same time, it is also a subject of heavy political discourse, especially given the elections taking place around the globe.

The re-election of Ursula von der Leyen as president of the European Commission, and her commitment to delivering the Green Deal, reaffirms our view that transition progress will likely be maintained for the bloc this year. However, June's European Parliament elections, which saw far-right making gains at the expense of the Green and Renew parties, show the electorate's sensitivity to the allocation of costs arising from the transition. Therefore, we expect a ramp-up in the implementation and capital deployment into critical green infrastructure and technologies, even without the introduction of new policy mechanisms.

Meanwhile, in the United States, Trump's potential return poses two key threats to global climate action: a possible withdrawal from the UN Treaty underpinning the Paris Agreement, risking US funding and global climate efforts, and a potential repeal of parts—but unlikely all—of the Inflation Reduction Act (IRA). We think the latter is unlikely also because several red states have been beneficiaries of private and federal funding commitments for transportation and clean energy. During the Biden administration, Texas and Georgia attracted around USD 75 bn and USD 39 bn, respectively, in funding announcements for clean

technology and transportation projects, according to the White House. Despite these risks, strong private sector demand and improving affordability should continue to drive transition investments in the US.

For both the EU and the US, the commitment to investment in the green economy has been repeatedly discussed not only as a climate issue, but also in terms of geopolitics given China's technological dominance, and energy dependency in the EU's case. Competitive dynamics may provide further support for green investment consistency.

Transport

Geopolitical changes and deglobalization trends are set to drive onshoring efforts, particularly set to affect freight. The COVID-19 lockdowns, port congestion, shipping delays, and geopolitical instability have triggered the move to bring supply chains closer to home.

Government policies are likely to drive restructuring of trade routes, creating opportunities for managers to participate in onshoring/near-shoring decisions as new manufacturing facilities tend to be located in rural areas that previously received little attention. Since 2022, construction spending for manufacturing has increased, with 2023 marking a 54% YOY increase with USD 193bn (US Census Bureau). With the IRA and the CHIPS act creating incentives for onshoring efforts, large-cap companies across the US have announced more than USD 500bn in private sector manufacturing investments.

Pitchbook indeed reports that transportation was the third-most-named investment area in the first quarter of 2024. While this area is more sensitive to global supply chain and behavioral demand in cases of passenger and freight transport, investors could still find the area appealing. Transportation offered deal-level IRRs ranging from 6.7% to 21.4% over the past 14 years.

Investor implications

Private infrastructure assets continue to perform well through periods of persistent inflation and lower growth. Investors should, as always, remain aware of risks related to private markets and characteristic to infrastructure. Besides longer lock-up periods and illiquidity risks, perpetual fund structures open to a broader investor base can come with gating and redemption limitations. Renewable energy infrastructure carries risks related to adverse weather events, grid strength, and supply chain dependency for materials, while datacenters are energy-intensive, and can be affected by power outages, overheating, and extreme weather.

With more than half the global population having the opportunity to vote in 2024, shifts in political power could also affect existing government programs supporting infrastructure investments. The need to invest in infrastructure, however, is recognized beyond party politics, in our view. Infrastructure plays an indispensable role in themes such as supply chain resiliency, technological development, efficient economies, and job creation. In an increasingly deglobalizing world, we believe full repeals of existing programs such as the IRA in the US and continued government support for infrastructure investments are unlikely.

We remain supportive of core infrastructure investments. We believe private market investors who want to participate in long-term opportunities related to secular trends could benefit from an attractive source of income in their portfolios while improving diversification.

Appendix

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