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PRIVATE EQUITY

A Paradigm Shift: Infrastructure Equity 2.0

INSIGHTS

Historically viewed as a yield-oriented and inflation-protected (but lower returning) asset class, infrastructure equity is transitioning to assets that could drive alpha in an investor's portfolio.

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Infrastructure Equity 2.0: The Evolution from Toll Roads to Carbon Capture

Infrastructure investing is changing. For decades, the asset class has been characterized by assets that provide essential services that are highly regulated, and comprise a single asset or project with long-term contracted revenues backed by an investment grade counterparty. This includes assets such as toll roads, utilities, and ports. The majority of the investment return of these assets is driven by income as opposed to asset appreciation. Given the downside protection, contracted cash flows and current yield, these investments typically command high valuations and drive significant competition.

However, over the past 10 years, the opportunity set has evolved into a new version of infrastructure. Compared with the toll roads and ports of the past, "Infrastructure Equity 2.0" includes companies and projects that are more distributed in nature (i.e., typically fixed assets that are distributed spatially), smaller in scale, and composed of multiple assets. These companies and projects are typically characterized by:

- More conservative capital structures (often with modest or no leverage),
- Fixed-rate debt with medium- to long-term maturities,
- Inflation protection,
- Contracted cash flows.

"The exponential increase in data consumption globally is one example that has driven an increased demand for AI and related data centers—contributing, in turn, to a significant need for enhanced digital infrastructure."

Key Themes Shaping the Opportunity

There are a number of secular tailwinds driving growth in both supply and demand for these assets over the coming years. The exponential increase in data consumption globally is one example that has driven an increased demand for AI and related data centers—contributing, in turn, to a significant need for enhanced digital infrastructure. In addition, given the efforts by governments around the world to meet certain climate goals and shift away from a traditional fossil-fuel based energy economy, the need for infrastructure related to the energy transition and circular economy has accelerated.

These structural trends are driving attractive investment opportunities in the next generation of infrastructure, particularly at the lower end of the market (i.e., enterprise values of $200–500 million). Given that these trends are likely to persist and possibly even accelerate, we believe this segment of the market has the potential to outperform over the next decade—which is supported by the historical outperformance of the middle market, generally, over market cycles. In particular, we believe outperformance is likely to be driven by companies and projects that benefit from hands-on, operational initiatives to manage assets, management teams with experience scaling businesses, and assets that present a significant opportunity to sell upmarket to larger investors with a lower cost of capital. Specifically, we see these opportunities across four key sectors **(Figure 1)**:

Figure 1: Sectors Positioned for Strength Over the Next Decade

Digital Infrastructure	Energy Transition	Transportation Mobility	Circular Economy
Telecom	**Renewables**	**Clean**	**Recycling**
Fiber Distributed Network Systems 5G Infrastructure	Sustainable Water Hydro Renewable Tidal Power	EV Charging E-Transport Smart Parking	Battery Recycling Plastics Recycling Wasterwater Infra
Network	**Energy Infra**	**Sustainable Fuels**	**Energy**
Internet of Things Cloud Infrastructure Edge and Hyperscale Data Centers	Battery Storage District Heating Smart Grids	Renewable Natural Gas Drop in Fuels Renewable Diesel/SAF	Waste-to-Energy Waste-to-RNG/LNG Carbon Capture

OPPORTUNITY IN THE CIRCULAR ECONOMY

A recent example of an opportunity we identified within the circular economy sector was the acquisition of a global leader in incinerator bottom ash recycling. This business operates within the energy-from-waste (''EfW'') ecosystem in which waste that cannot be recycled is sent to EfW plants to be incinerated. The incineration process creates heat and steam, which powers an electricity generator turbine—and this is then sold into the power grid. Incinerator bottom ash recyclers take the waste product from the EfWs, and extract the critical metals which remain within the waste, such as aluminum, gold, copper, and zinc. The EfWs then utilize the aggregate waste products within infrastructure projects, such as road building, therefore meaningfully reducing the waste which is sent to landfill.

Source: Barings. For illustrative purposes only.

Record-level Fund Sizes are Emerging in Infrastructure

Infrastructure is currently experiencing similar trends that have characterized the private equity industry over the last decade. For one, there are fewer funds raising record-breaking fund sizes in the market. At the same time, there is a desire by limited partners (LPs) to consolidate their fund commitments with larger checks to fewer sponsors. In fact, the top five infrastructure funds closed in 2023 represented 71% of the capital raised during the year.[1] In short, LPs are aggregating their capital to fewer and larger managers, driving those managers to pursue deals at the upper end of the market. This dynamic has led to a dearth of capital being raised in the lower and middle market.

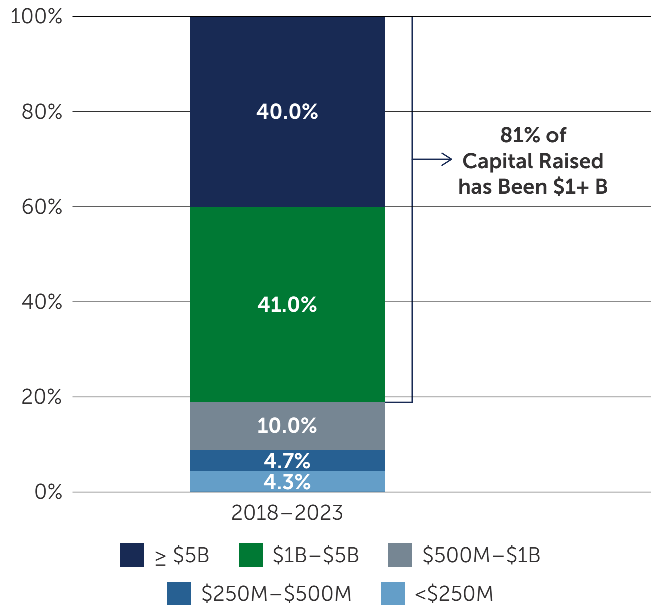
Are Middle Market Funds Positioned to Generate Stronger Returns?

As investors in the asset class for over 10 years, we have observed that as infrastructure funds have grown larger and more established, performance has historically reverted to the mean **(Figure 3)**. Alternatively, smaller infrastructure funds have historically outperformed their mega fund peers due to a number of reasons:

- Relatively attractive valuations,
- A wider opportunity set,
- Expanded exit environment,
- Larger set of value creation levers,
- Generally better alignment.

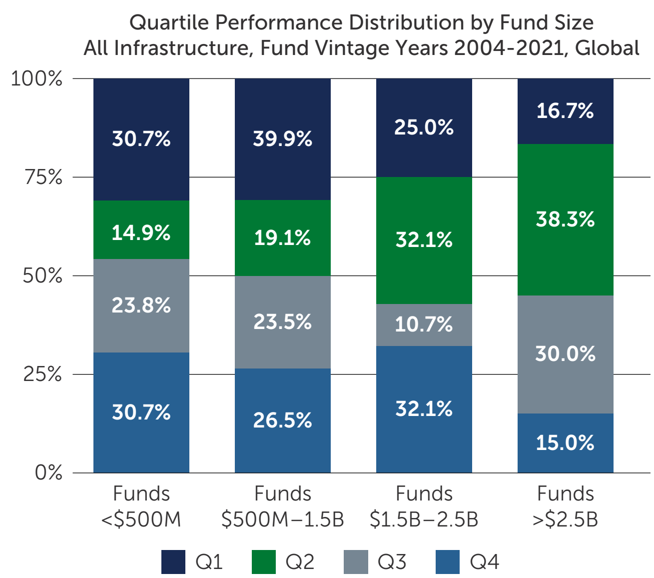
The middle-market, value-add segment of the market looks particularly attractive today, for a few reasons. For one, there is less competition, given that many of the funds in this segment have moved up market in recent years to raise larger funds. In fact, only 19% of the total funds raised this year have been in the middle-market, value-add segment, resulting in a large opportunity set relative to the amount of dry powder **(Figure 2)**.

Figure 2: Fewer Funds Raising Record Fund Sizes in Infrastructure



Source: Barings, Pitchbook Q1 2023 Global Real Assets Report. As of March 31, 2024. Includes primary infrastructure funds raised from 2012 to 2022 across all regions.

Figure 3: Smaller Funds Have Historically Outperformed Mega Funds

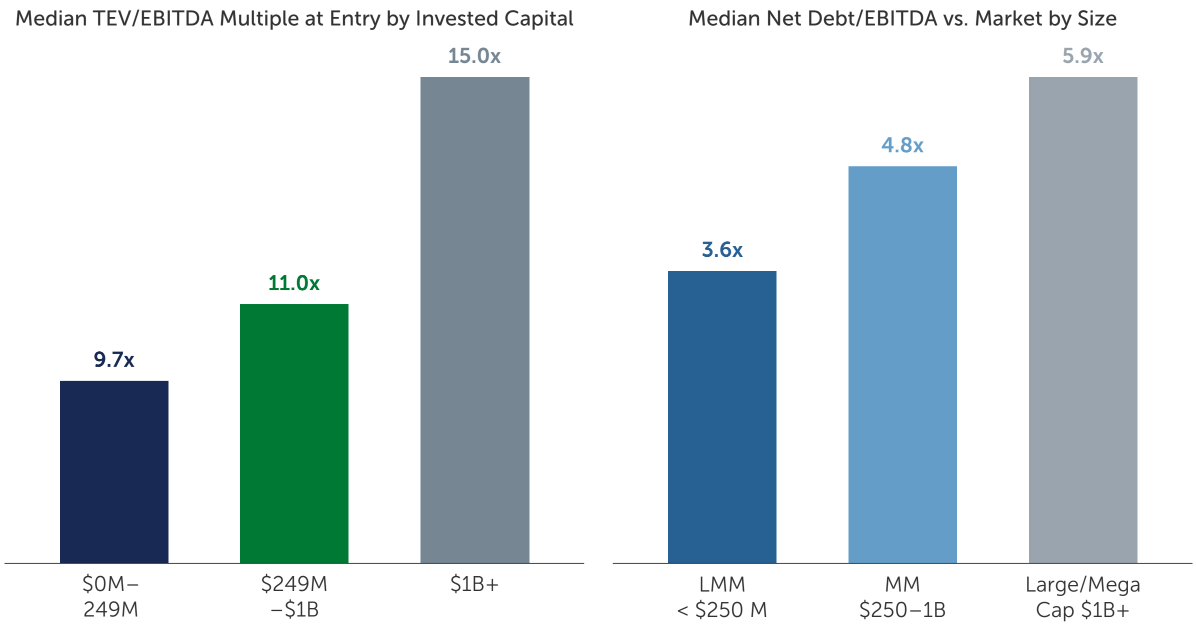


Source: Barings, Pitchbook. As of March 1, 2024. **PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.** Data set includes primary funds (i) employing infrastructure strategies, (ii) with vintages between 2004 and 2021, and (iii) domiciled globally. Funds must have performance data and fund size to be considered.

1. Source: Pitchbook Q3 2023 Global Real Assets Report. As of September 30, 2023.

Further, because funds in the middle market tend to be smaller in size, they allow managers to be more nimble and invest in less-efficient corners of the financial markets—whereas the size of large/mega funds often precludes their ability to participate. By focusing on companies that are likely to benefit from the so-called "small cap effect"—the much-noted underestimation of small companies' growth potential and value—smaller managers are well-positioned to identify companies that could potentially outperform. General partners (GPs) investing in this portion of the market have historically benefited from more attractive valuations and capital structures, acquiring companies at a significant discount relative to their large-cap counterparts and with lower leverage **(Figure 4)**.

Figure 4: Smaller Companies: Relatively Attractive Valuations with Lower Leverage



Source: DealEdge. As of October 4, 2023. Metrics represent medians for realized, partially realized and unrealized deals classified as Infrastructure Strategies from 2007 to 2023 in the Energy & Natural Resources, Industrials, Business Services, Healthcare, Technology, Media & Telecommunications and Utilities industries by Invested Capital. "LMM" reflects deals with enterprise values and invested capital less than $250 million. "LMM / MM" reflects deals with enterprise values and invested capital less than $1 billion. "Large Cap /Mega Cap" reflects deals with enterprise values and invested capital greater than $1 billion.

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Infrastructure Equity Emerging Managers: Potential to Generate Outsized Alpha

Historically, the performance of larger, established managers has been trending toward the median **(Figure 5)**. For the largest and most mature funds (Funds IV and higher), data shows that performance has declined over time, resulting in the relative performance of more of these funds falling into the middle quartiles.

Why is this the case? First, larger GPs are often overseeing funds in various lifecycle stages (fundraising, investing, portfolio management and exiting), while emerging managers can typically dedicate the majority of their time and attention to investing and managing a smaller portfolio with fewer assets. Second, emerging managers tend to be more strongly aligned with their investors, both financially and psychologically, as their long-term success is predicated on making strong investments out of the gate. Finally, larger investors may, in some cases, have less time to dedicate to each of their funds given the need to raise adjacent products and begin to "asset gather." There is also a risk related to turnover—by the time a firm gets to its fourth or fifth fund, there has often been at least some turnover in key investment professionals. With many partners moving up and teams moving on, the original track record associated with a brand name often can no longer be attributed to the current management executives.

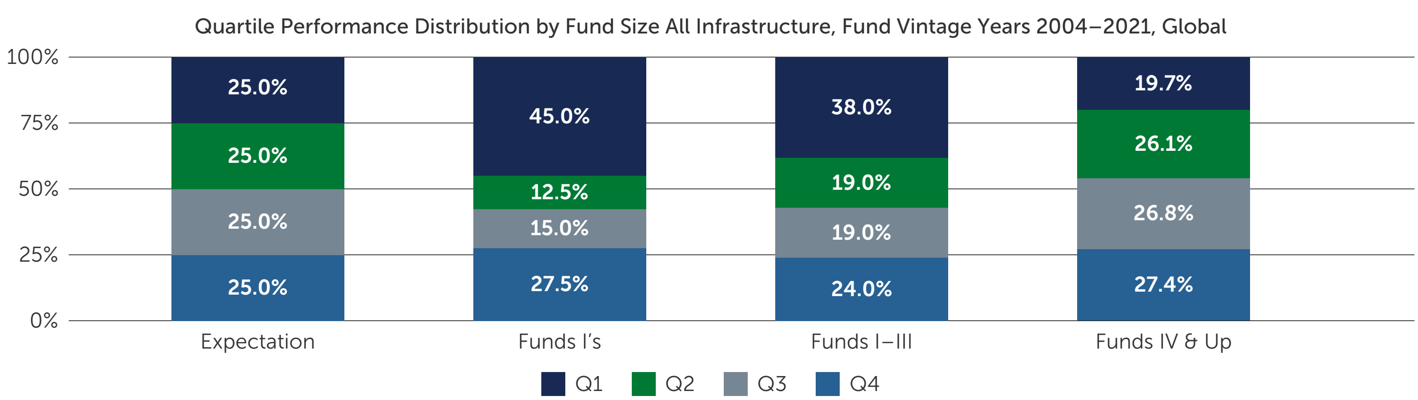
Additionally, emerging managers have the benefit of not being distracted by legacy portfolios that demand attention in an inflationary environment. Instead, they can focus on sourcing and executing new deals for their current funds.

Key Takeaway

There are a number of structural themes—from the acceleration toward a digital world to fluctuating supply chains to the need to decarbonize the economy—that are shaping a compelling opportunity in Infrastructure Equity 2.0. As a result, our Barings Diversified Alternative Equity strategy focuses on the key target sectors that are likely to benefit from these trends: digital infrastructure, the energy transition, transportation mobility, and the circular economy. We believe the opportunity appears most attractive in the middle market, where smaller infrastructure funds have historically outperformed their mega fund peers.

That said, there are a number of potential challenges that could impact private markets going forward, ranging from persistently high inflation to mounting political and geopolitical risks. Against this backdrop, we believe disciplined manager selection and maintaining active portfolio management are key factors for success while navigating this market.

Figure 5: Emerging Managers Have Historically Generated Outsized Alpha



Source: Barings and Pitchbook. As of March 1, 2024. **PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.** Data set includes primary funds (i) employing infrastructure strategies, (ii) with vintages between 2004 and 2021, and (iii) domiciled globally. Funds must have performance data and fund size to be considered.

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