MEKETA CAPITAL

Durable by Design: Infrastructure's Long-Run Resilience

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The private infrastructure sector has demonstrated remarkable resilience despite facing significant macroeconomic and policy challenges in recent years. A period of high inflation and rising interest rates had some impact on valuations, but not as severely as many other asset classes.[1] Additionally, the sector has shown signs of growth with capital raising and deal flow picking up in 2024 after slowing down in 2023 like all private markets.[2]

Looking ahead, the outlook for private infrastructure remains positive, driven by the potential for falling borrowing costs, significant policy support from both the US and EU governments, and a focus on traditional and new energy investments, renewable energy, AI, data centers, and digital infrastructure. While uncertainties remain, the combination of improving market and policy fundamentals suggests a bright future for private infrastructure in the coming years.

[1] Source: Preqin, "Annual Infrastructure Review," October 2024.

[2] ibid

Key Takeaways

› The private infrastructure sector has shown resilience despite macroeconomic and policy challenges.

- Capital raising and deal flow are recovering after setbacks from high inflation and interest rates.
- President Trump's election and the Republican sweep have boosted the confidence of infrastructure investors with expectations of deregulation and favorable tax policies.
- Falling borrowing costs and significant policy support from the US and EU governments are expected to drive further investment.
- The focus on traditional and new energy investments, renewable energy, AI, data centers, and telecom infrastructure will create opportunities for investors.

Private Infrastructure Resilience

In recent history, private infrastructure has weathered macro and policy challenges after significant fund raising and deal flow in 2021 and 2022.[3] Forecasted fundraising for the remainder of the decade is strong (see Figure 1).

[3] Source: Preqin, "Annual Infrastructure Review," October 2024. UBS, "Infrastructure 2025 Outlook," December 2024. See also Hamilton Lane, D. von Scheven, "Key Infrastructure Themes for the Year Ahead," December 4, 2024.

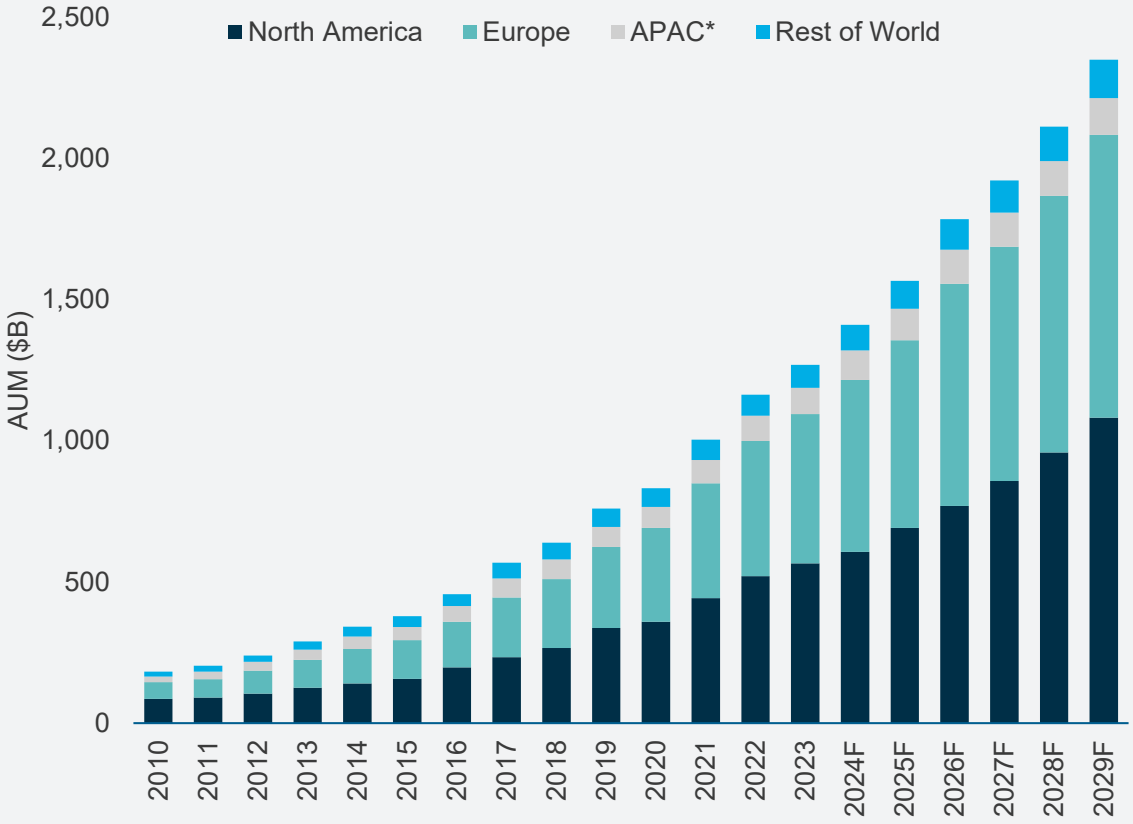

FIGURE 1
Private Infrastructure Fundraising by Region (USD)

Source: Preqin, "Annual Infrastructure Review," October 2024. Data represents forecasts for 2024 through 2029.

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The outlook for infrastructure appears bright for a number of reasons (see Figure 2). President Trump's election and the Republican sweep of both the House and the Senate have ignited investor hopes for deregulation and tax breaks for corporations. For example, President Trump's executive orders to deregulate and stimulate the US energy sector may have benefits for investors in private infrastructure.[4] Although much remains uncertain, the combination of improving market and policy fundamentals could be supportive for private infrastructure in the year ahead.

[4] Source: Cohen & Steers, "What Could a Second Trump Presidency Mean for Real Assets," November 15, 2024.

Tailwinds for 2025 and Beyond	Potential Headwinds
GDP	Economic Disruptions; Tariffs
Falling Interest Rates (slowly)	Inflation Reaccelerates
Substantial AI Infrastructure FAI Announced	AI Bubble Bursts
Low Dry Powder Ratio (% of AUM)	Capital Raising and Deal Flow Decline on Uncertainty
Healthy Pricing Power (Moderate Inflationary Pressures)	Inflation Accelerates andCentral Banks Reverse Easing
Base-Effects for Valuations Receding	Possible Resurgence of Inflation and Rates Weight on Valuations
Pro-energy policies in EU and US	Regulatory Uncertainty for Decarbonization and PARIS Accord C02 Goals

FIGURE 2
Private Infrastructure Market Policy and Potential Headwinds

Source: Preqin, "Annual Infrastructure Review," October 2024.

With inflationary pressures cooling, falling borrowing costs in the eurozone and the US are expected to ease capital costs for private infrastructure deals and investment (see Figure 3). Although global trade tensions and tariffs may complicate the current expected interest rate declines, significant policy support from the EU member states and the US government may incentivize more infrastructure investment.

For example, the Secretary of Energy Christopher Wright signed an executive order "Unleash the Golden Era of American Energy Dominance," which outlines the administrations' focus on traditional and new energy investment and innovation.[5] Likewise, the European Commission has announced its own "EU-Clean Industrial Deal" that will provide over $100 billion in financing to reduce energy costs and boost clean energy production.[6]

[5] Source: Department of Energy, C. Wright "Unleash the Golden Era of American Energy Dominance," February 5, 2025.

[6] Source: Reuters, J. Payne, "What's in the EU's Plan to Boost Clean Tech, Lower Energy Bills?" February 26, 2025.

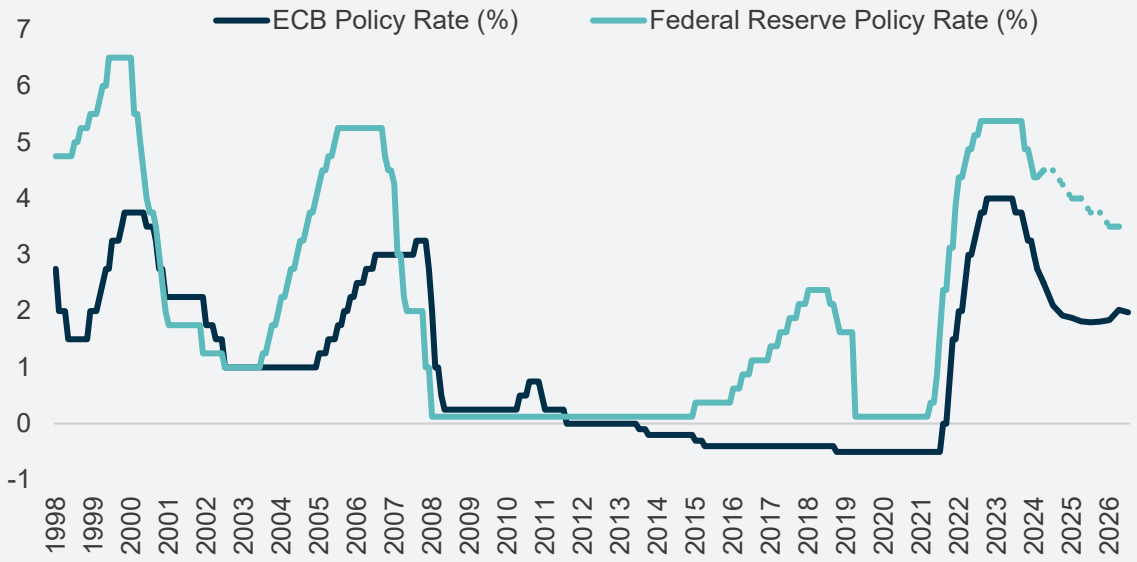


FIGURE 3
Federal Funds Rate & ECB Policy Rate Outlook (%)

Source: Bloomberg as of February 28, 2025.

Private Infrastructure's Stable Performance Persists

Private infrastructure performance has remained resilient in recent years despite high inflation and interest rates disrupting global capital markets between 2022 and 2024 (see Figure 4). During the period of disruption, venture capital and private equity internal rate of returns suffered somewhat in 2022 and 2023.[7] The disruption in private capital markets has been subsiding with global inflation pressures falling and central banks cutting policy rates in the US and in Europe.[8] Falling interest rates are expected to encourage deal flow, capital raising, and rising valuations for private infrastructure.[9]

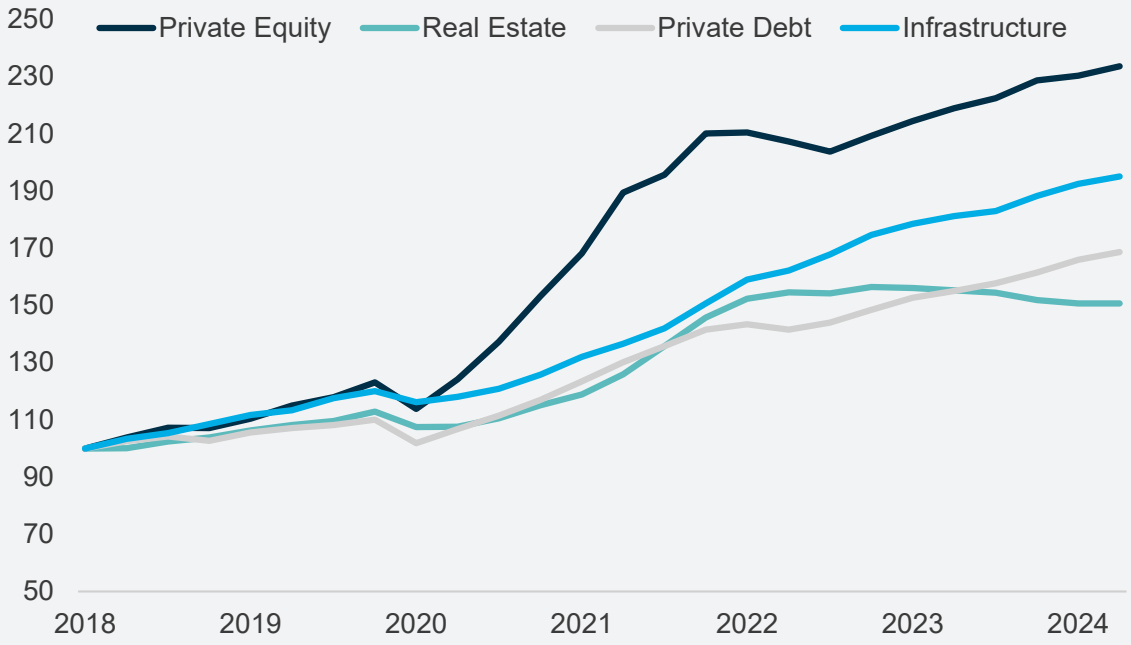
At the sub-sector level, the diverse cross section of sectors has helped buoy returns for private infrastructure (see Figure 5). For example, while some sectors suffered (e.g., roads), others were quite strong (e.g., all things digital). At the same time, some sectors have proved to be more cyclical (e.g., renewables).[10]

[7] Source: Macquarie, "Private Infrastructure Valuations," October 2024.

[8] Source: Bloomberg data as of February 2025.

[9] Source: Macquarie, "Private Infrastructure Valuations," October 2024.

[10] Source: Macquarie, "Private Infrastructure Valuations," October 2024.



Past Performance is not Indicative of Future Performance. May Lose Value.

FIGURE 4

Cumulative Performance of Private Markets (Indexed to 100 in 2007)

Source: Preqin, "Annual Infrastructure Review," October 2024. Preqin Index: private capital strategies vs. S&P 500 TR Index (rebased to 100 as of December 31, 2007).

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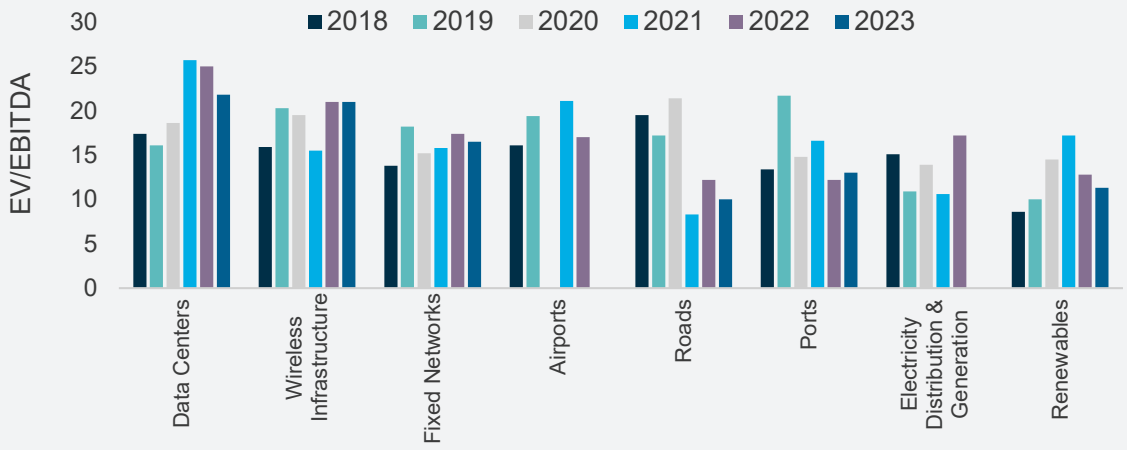

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FIGURE 5

Infrastructure Sector Valuation By Year (EV/EBIDTA)

Source: Macquarie, "Private Infrastructure Valuations," October 2024. Macquarie calculations; missing years not yet calculated.

Are Renewables Finished?

Although there is concern that some of the Biden administration's green energy initiatives may be rolled back by the new administration, on balance, the accelerating demand for power generation from data centers and electrification will continue to support a wide array of power sources including renewable energy. The Office of Budget and Management (OMB) has recently clarified that tax credits for renewable energy will likely remain in place.[11]

In the first three quarters of 2024, renewable energy deals constituted the majority of total deals in private infrastructure.[12] Renewable energy cost per kilowatt hour is now competitive with traditional energy production (see Figure 6).

Supply chain factors may also support renewable energy. For example, the wait for a natural gas turbine can be as long as five years compared to 12 to 18 months for solar arrays.[13] Private equity and institutions are relatively new investors in power generation, and these new entrants are twice as likely to create power plants as incumbents. They owned 58% of wind, 47% of solar, and 34% of natural gas electricity production as of 2020. The ownership changes are concentrated in deregulated wholesale markets which attract more capital from new entrants to create renewable and natural gas plants, acquire existing plants, and accelerate the decommissioning of coal plants.[14]

[11] Source: Reuters, "White House Says Order Pausing IRA Disbursements Only Apply to Some Programs," January 22, 2025. See also CLA Connect "What Does the Halt on Clean Energy Funding Mean for Energy Tax Credits," January 30, 2025. While tax credits may require congressional legislation to remove, section 2 of the IRA may be rescinded on programs related to climate change and electric vehicle mandates that are not connected to tax credits.

[12] Source: Preqin, "Annual Infrastructure Review," October 2024.

[13] Source: New York Times, B. Plumer, "Want Cheap Power Fast? Solar and Wind Farms Have A Suggestion," March 17, 2025.

[14] Source: NBER, J. D. Rauh et al., "The Shifting Finance of Electricity Generation," September 2024. Meketa illustration.

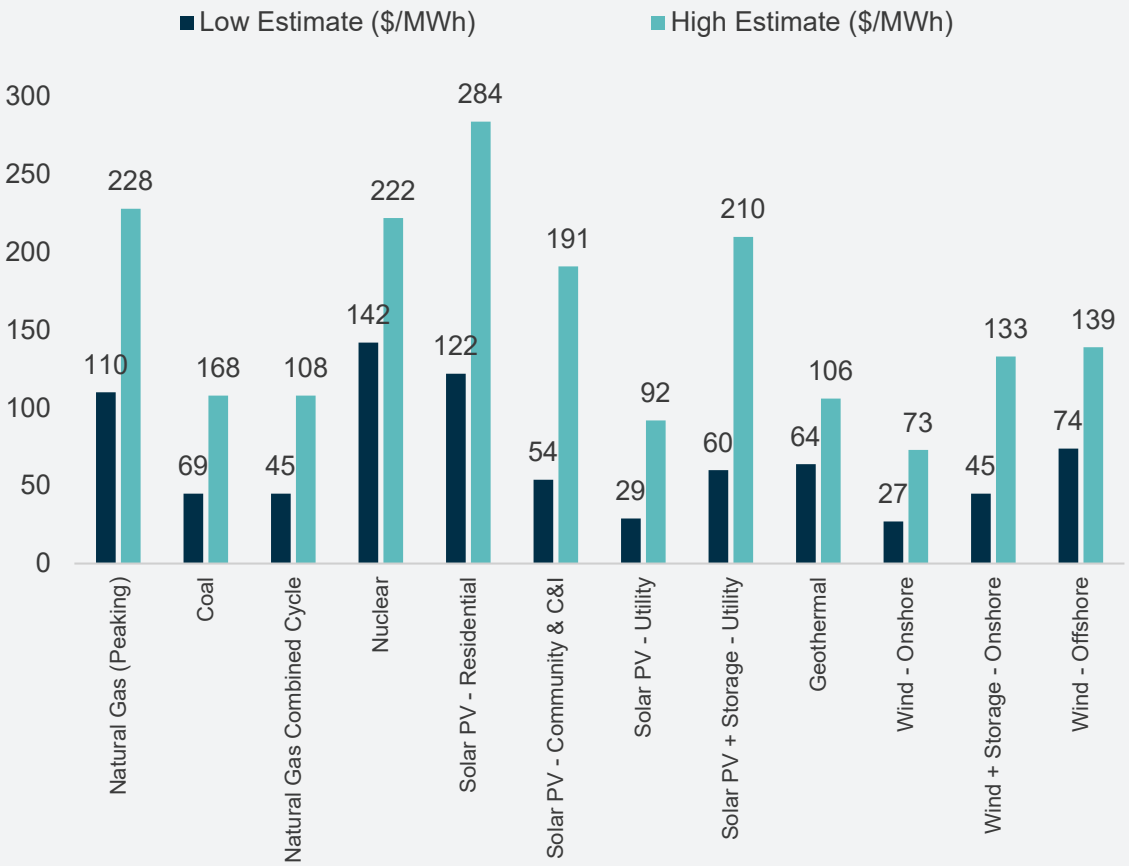

FIGURE 6
Cost by Energy Sector Estimate ($/Kilowatt hour)

Source: Lazard, "LCOE Analysis" June 2024. Levalized Cost of Energy (LCOE). The LCOE includes cost of capital, tax incentives and carbon pricing. The effects of tax incentives are most relevant for low-end estimates for renewable energy.

Note:Levelized Cost of Energy (LCOE) measures lifetime costs divided by energy production and calculates present value of the total cost of building and operating a power plant over an assumed lifetime of the plant. Allows the comparison of different technologies (e.g., wind,solar, natural gas) of unequal life spans, project size, different capital cost, risk, return, and capacities. Critical to making an informed decision to proceed with development of a facility, community or commercial-scale project." It is important to note that individual or bespoke renewable and traditional energy enterprises may have unique individual characteristics that may not be representative of the aggregate sector LCOEs shown here.

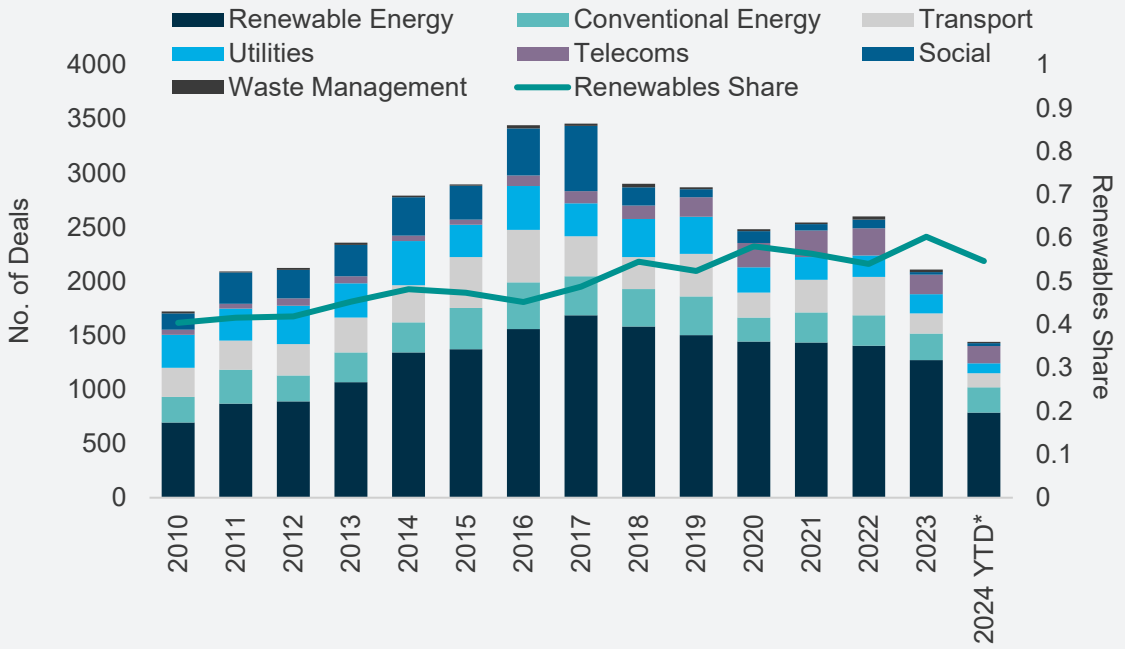

FIGURE 7

Global Sector Deal Count and Renewables Share by Year

Source: Preqin, "Annual Infrastructure Review," October 2024.

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While the Trump administration has signed a series of executive orders aimed at deregulating the US energy sector, the timing and scope for implementation of these orders remains uncertain. Recent scholarship suggests that private equity and institutional investors are more likely to invest in renewable energy projects with strategic focus on commercial contracts and leveraging local conditions.[15] The preference for commercially viable bespoke renewable energy project is supported in the total private infrastructure fundraising data (see Figures 7 and 8).

[15] Source: NBER, J. D. Rauh et al., "The Shifting Finance of Electricity Generation," September 2024.

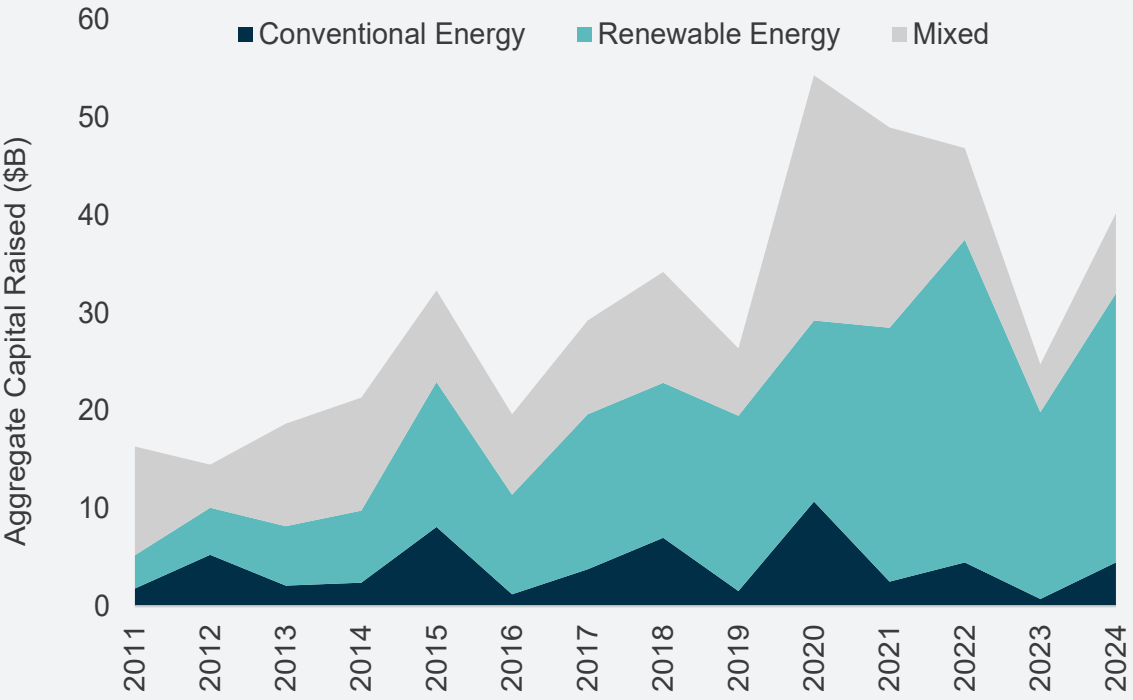

FIGURE 8

Capital Raised By Energy Type

Source: Preqin, "Annual Infrastructure Review," October 2024.

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Powering Emerging Technology Is Front and Center

As private companies move to expand and deepen their artificial intelligence and cloud computing capacity, the demand for power is set to rise considerably.[16] Hyperscalers in the semiconductor and technology sectors have announced plans for new greenfield investments in the US.[17] Since the start of the year, Amazon (+$75B), Microsoft (+$85B), and Meta (+$65B) have all proclaimed their intention to build new data centers in the US over the coming year.[18] These represent individual data points along a forecasted path of 19-27% annual demand growth for power just for data centers (see Figure 9).

[16] Source: McKinsey Data Center Power Demand Model, October 29, 2024.

[17] Hyperscalers are a class very large cloud providers like Microsoft and Alphabet (Google) operating at a global scale with the ability and compute power to process immense amounts of data.

[18] Source: Reuters, "Meta in talks for $200B AI Data Center Project," February 25, 2025. Meta has not confirmed rumors of $200B project. Mark Zuckerberg has publicly affirmed plans to invest $65B in 2025.

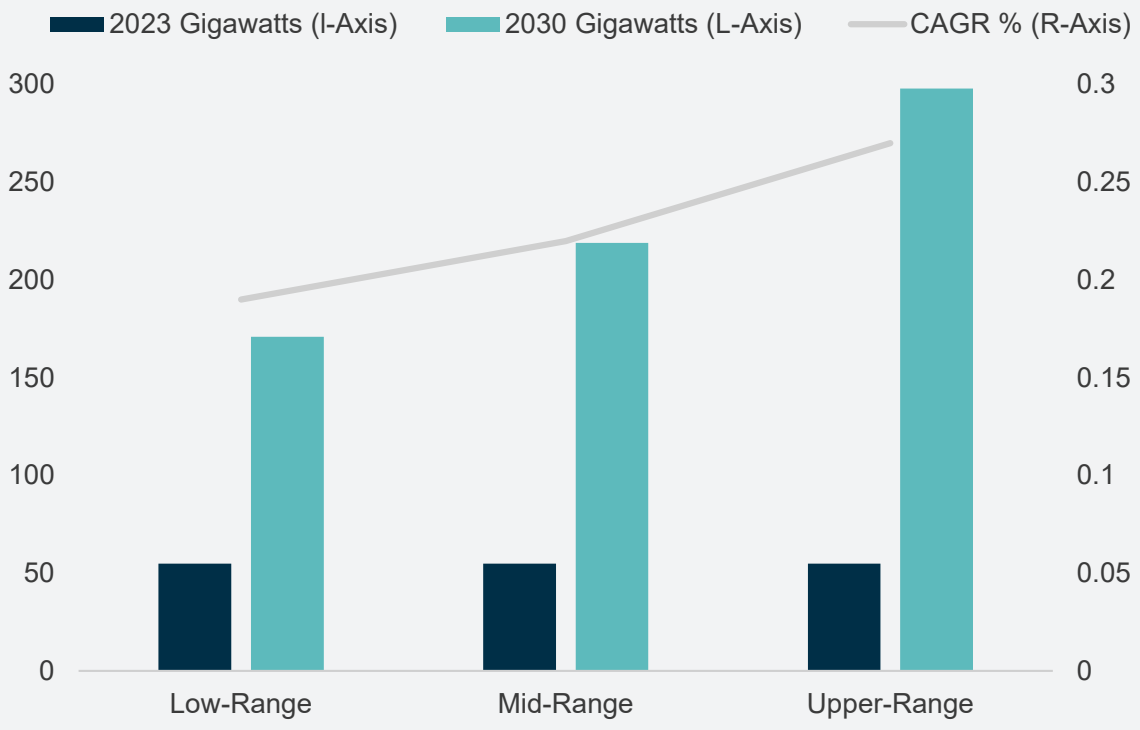

FIGURE 9
Global Data Center Power Demand Growth Estimates (GW)

Source: McKinsey Data Center Power Demand Model, October 29, 2024. "The charts show shows three scenarios representing and upper, lower, and mid-range estimate of demand based on analysis of AI adoption trends, growth in shipments of different types of chips and their associated power consumption, and the typical compute, storage, and network needs of AI workloads. Demand is measured by power consumption to reflect the number of servers a facility can house." Original 2030 data server power demand is also an estimate. US Department of Energy estimates that by 2030 data centers will require between 45 and 55 Terawatts of power. See DOE, "Clean Energy Resources to Meet Data Center Electricity Demand," March 2025.

Not only will there be an increased demand for power generation, the telecom sector will play an integral part in the connectivity of the current and future data center infrastructure. The telecom sector's share of infrastructure deals has essentially doubled in the past five years (see Figure 10).

Growing Private Ownership

Power demand in the US is forecast to grow at least 3% a year over the next decade. Private equity (infrastructure) and institutional investors are growing as a share of the ownership landscape for power generation (see Figure 11). Recent scholarship suggests that institutional investors are increasingly prominent in more energy efficient power plants. "When selling electricity, private equity and foreign corporations use contracts with shorter duration, shorter increment pricing, and more peak-period sales, and obtain a a $2.59 higher average price per MWh."[19]

[19] Source: NBER, J. D. Rauh et al., "The Shifting Finance of Electric. Meketa illustration.

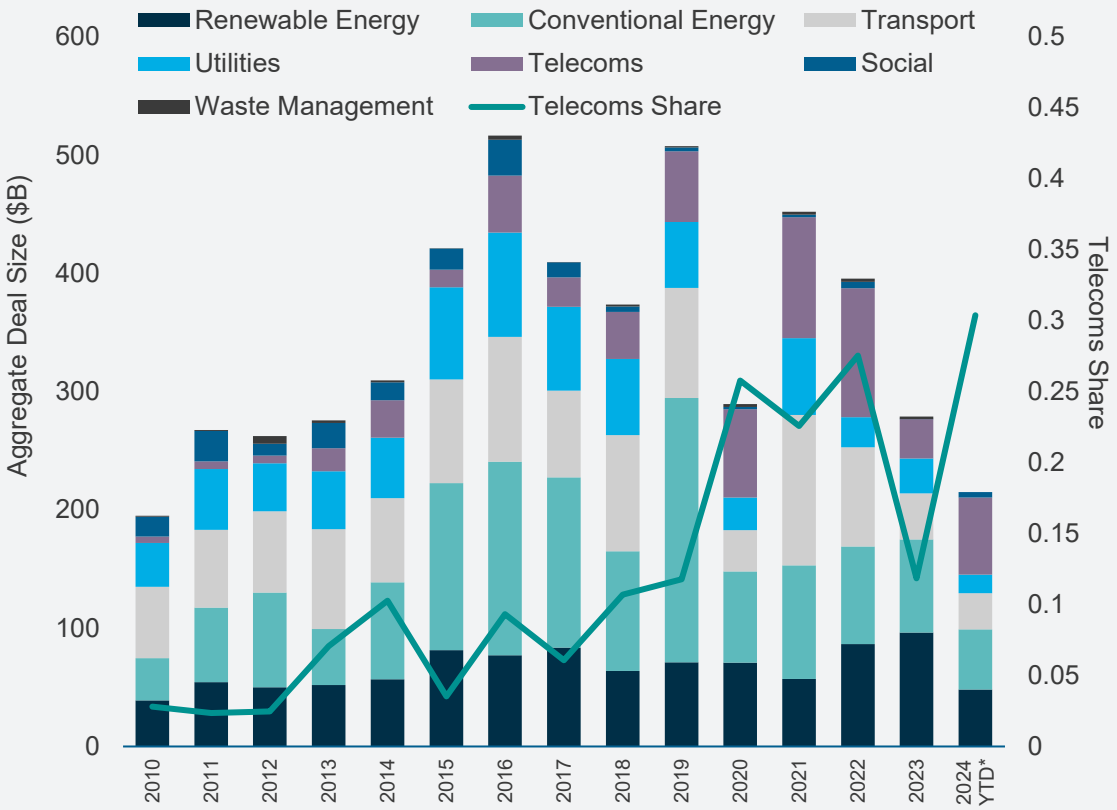

FIGURE 10
Infrastructure Deal Size by Sector and Year

Source: Preqin, "Annual Infrastructure Review," October 2024.

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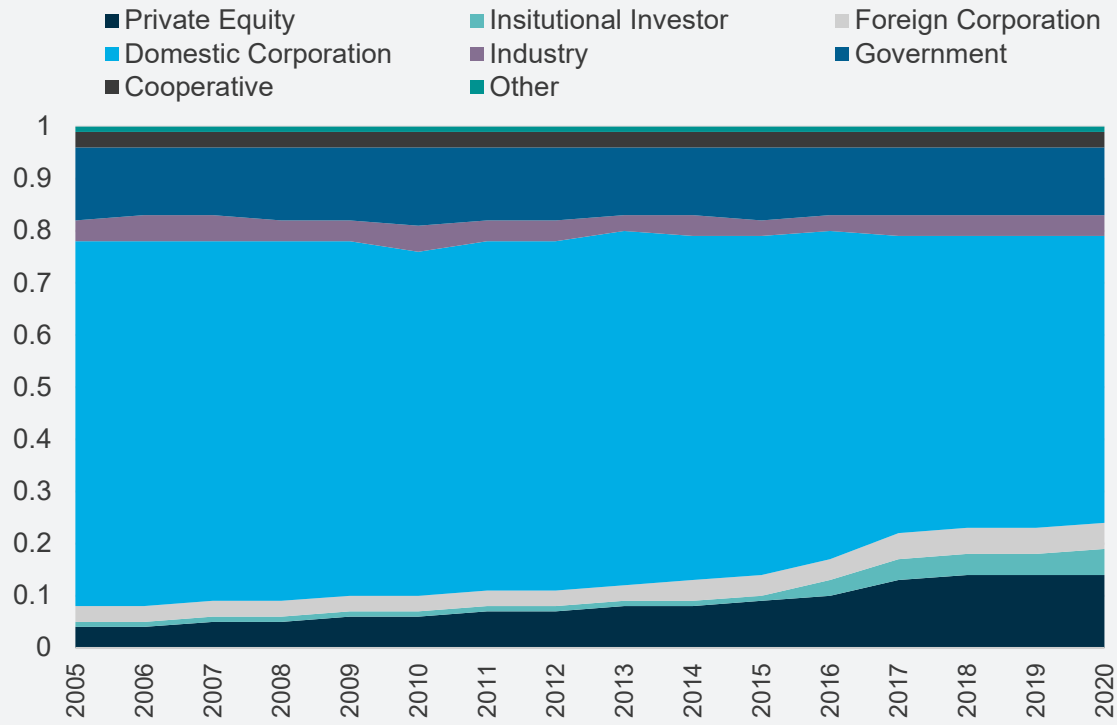

FIGURE 11
Power Generation Ownership (% Monthly Power Generation in the US)

Source: NBER, J. D. Rauh et al., "The Shifting Finance of Electricity Generation," September 2024. Meketa illustration.

What's on the Horizon for Private Infrastructure?

The private infrastructure sector has demonstrated remarkable resilience in the face of macroeconomic and policy challenges over the past few years. Despite the headwinds caused by soaring inflation and rising interest rates, the sector has shown resiliency. Investors have recognized this leading to recovery of capital raising levels and deal flow volume in 2024. The new administration has further bolstered investor confidence on deregulation and tax breaks expected to provide additional support for infrastructure investments.

Looking ahead, the outlook for private infrastructure remains positive, with falling borrowing costs and significant policy support from both the US and EU governments expected to drive further investment. The focus on traditional and new energy investments, as well as the growing demand for renewable energy, AI, data centers, and telecom infrastructure, will continue to create opportunities for investors. While uncertainties remain, the combination of improving market and policy fundamentals suggests a bright future for private infrastructure in the coming years.

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