BlackRock

Investment perspectives
January 2026

The infrastructure opportunity in portfolios

Mega forces are driving enduring infrastructure demand, and today's valuations offer a timely entry point. We see a clear case for higher allocations than many portfolios hold.

UNDER EMBARGO UNTIL 11.00 AM GMT / 6.00 AM ET ON TUESDAY, JAN. 27, 2026

BlackRock **Investment** Institute

Rethinking neutral

Summary

- **Key takeaway: Investing in Infrastructure – across listed and private markets - combines tapping into an enduring structural demand and a current market opportunity.** Mega forces such as the low-carbon transition, artificial intelligence and geopolitical fragmentation are driving multi-decade investment needs. Attractive valuations – trading well below historical averages - create a compelling entry point, in our view.
- **Infrastructure provides exposure to real assets with lifespans lasting decades that are essential to economies.** These assets – across transport, energy, digital and utility systems – have cash flows that are typically regulated or contracted over the long run, providing defensive attributes such as stable cash flows typically linked to inflation.
- **Structural forces such as AI and the low-carbon transition add earnings growth potential to infrastructure's defensive profile.** The needed infrastructure buildout to support AI deployment exemplifies the timeliness of the opportunity. Data centers, power networks and fiber systems underpin AI adoption regardless of which firms ultimately lead. Infrastructure provides a durable way to participate in this secular transformation while maintaining defensive characteristics.
- As a result, **our long-term capital market assumptions show attractive expected risk-adjusted returns relative to traditional equities and bonds**. We model diversified private infrastructure equity and listed infrastructure and find private infrastructure equity ranks near the top of our 20-year expected return range, while listed infrastructure offers slightly lower returns but with less volatility.
- **Our analysis suggests many portfolios could hold more infrastructure exposure.** We find representative global 70/30 stock-bond portfolios already hold around 4–5% of implicit infrastructure exposure through existing equity and credit holdings in sectors like utilities. Depending on risk and liquidity preferences, total exposure can rise to 10-19%, potentially improving returns without raising overall portfolio volatility. For investors with income or liability-matching goals, infrastructure debt offers an additional route.
- **Historical under-allocation to infrastructure reflects behavioral and technical barriers rather than fundamental limitations.** Sparse benchmark representation, limited investor familiarity, illiquidity concerns and structural hurdles – including high transaction costs, deal-structuring complexity and operational implementation issues - have kept allocations subdued. Yet some barriers are easing, and market-structure changes such as deeper secondary markets, semi-liquid vehicles and tokenization are expanding access.
- **Implementing this exposure requires a disciplined and deliberate approach.** Assessing what investors already hold, adding exposure selectively when valuations are attractive, using listed assets as a bridge to private commitments and prioritizing manager quality are key. We see an opportunity for early adopters to secure exposure while demand for infrastructure capital still exceeds supply, helping keep prospective returns and entry valuations attractive.
- This paper is the second in our *Rethinking neutral* series that we launched with our August 2025 paper *More room for hedge funds* in which we set out why we thought some investors can hold up to 5 percentage points more in hedge funds today than they did before 2020.

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Defining infrastructure exposures

The transformation underway across energy, transport and digital systems is reshaping the investment landscape. We see infrastructure at the heart of this transformation — the essential systems that enable growth and adaptation. Long-term forces such as the low-carbon transition, digitization and artificial intelligence and evolving supply chains anchor the case for infrastructure over time. Yet, in our view, market pricing still undervalues these enduring trends, creating an attractive opportunity for investors today.

In our framework, infrastructure refers to exposure to long-lived, real assets providing critical services to customers or society. In this paper we focus on segments widely recognized for these characteristics — transport, energy, telecom and digital networks, and water and waste management — shown in the green-shaded tier of the table below. Their cash flows are often supported by regulation or long-term contracts that can adjust with inflation, giving them defensive and predictable income profiles. Yet returns can differ across strategies and over time, so having access across public and private markets – and deciding when to emphasize core or value-add exposures – is part of the implementation.

Across public and private markets, and across both equity and debt, infrastructure exposures typically combine high barriers to entry, stable demand and recurring, inflation-linked cash flows. These features have historically translated into resilience and relatively low volatility through economic cycles. For the investable infrastructure equity exposures we model — diversified private infrastructure equity and listed infrastructure — our 20-year capital market assumptions point to strong prospective risk-adjusted returns. See the chart on the right. Our estimates place private infrastructure equity near the top of the return range, while listed infrastructure offers somewhat lower returns but also with less volatility. On a risk-adjusted basis over long horizons, both compare favorably with our hypothetical global 70/30 stock–bond portfolio.

Many portfolios already hold implicit infrastructure exposure through listed equities and credit — for instance, utilities, pipelines or tower companies within benchmarks. Dedicated infrastructure strategies provide more targeted exposure to long-duration, often inflation-linked cash flows and can improve the balance between risk and return. We see listed and private infrastructure as complements: public markets offer liquidity and transparent pricing, while private markets provide more direct control over assets and the cashflows they generate.

The complementarity is also evident in sector composition. Listed infrastructure indices such as the S&P Global Infrastructure and FTSE Developed Core Infrastructure are weighted heavily toward utilities — roughly 40–50% — with large exposure to transmission and distribution grids and regulated generation. Private portfolios, by contrast, tend to hold fewer utilities and more assets in transport and digital infrastructure, including data centers, ports and airports. Listed and private exposures together can strengthen portfolios by combining stable income streams with differentiated sources of return. In our view, this combination is what makes infrastructure compelling for long-term portfolios.

What is infrastructure?

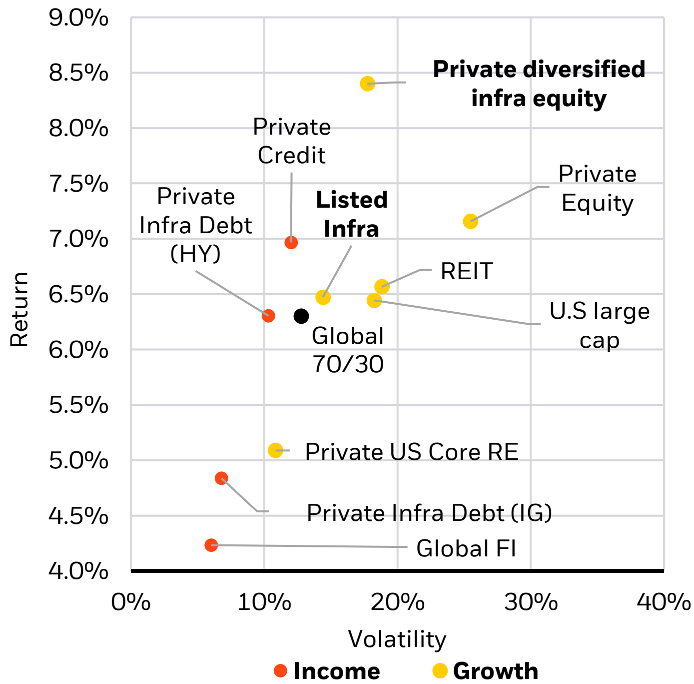
Three tiers of infrastructure assets

Broad sector	Examples of physical assets
Transport	Highways, toll roads, bridges, rail networks, airports, ports
Energy	Electricity grids, gas pipelines, power plants, LNG terminals, storage / batteries
Telecom	Fiber networks, cell towers, undersea cables
Digital	Hyperscale, colocation & enterprise data centers, cloud interconnect platforms
Water & waste	Water treatment plant, desalination plant, recycling plants, waste-to-energy
Selected real estate	Logistics warehouses, industrial campuses, long-lease corporate campuses, parking lots
Private mobility	EV charging networks (esp. smaller scale), airports retail
Digital extensions	IoT / smart city platforms, lighting networks, edge data centers
Distribution	Cold chain distribution centers, commercial fleet charging depots
Resource-linked	Mining, oil & gas E&P, rail-linked commodity trading, grain elevators
Public services	Schools, hospitals, prisons, military bases
Social housing	Affordable housing
Recreational & cultural	Museum, stadiums, community centers

Source: BlackRock Investment Institute, November 2025. Note: Green denotes Tier 1, while light yellow and light orange denote Tier 2 and Tier 3 exposures, respectively.

Attractive risk-reward

BlackRock 20-year expected returns, November 2025



Forward-looking estimates may not come to pass. Source: BlackRock Investment Institute, 2025Q1 CMAs. Notes: Risk-adjusted returns.

What's driving the infrastructure buildout

Infrastructure demand is accelerating worldwide. We see four enduring mega forces behind this: demographic divergence, the low-carbon transition, artificial intelligence and digitalization and geopolitical fragmentation. Each is reshaping the scale and type of investment needed — and together point to a multi-decade build-out of essential assets.

Take demographics. The global population is projected to approach 10 billion by 2050, but the pattern is uneven. Most of the growth and urbanization is occurring in emerging markets, while populations in advanced economies are flatlining or shrinking. Urbanization compounds the effect of population growth, driving infrastructure demand even faster as more people move into cities and require expanded transport and utilities systems. That divergence matters for investors: emerging markets are likely to need large-scale new infrastructure, much of it accessible through listed exposures in transport and utilities, while developed economies will focus more on renewal and productivity-enhancing projects — areas that tend to be more geared toward private infrastructure.

Energy demand is growing, with low-carbon sources adding to the mix. Electricity use has been rising roughly twice as fast as total energy consumption (*source*), driven by electrification of transport, heating and industry. The shift toward lower carbon and more electrified mixes is inherently capital intensive, as sources like renewables and nuclear require more upfront investment than traditional energy systems. Building this transition infrastructure while maintaining and upgrading legacy systems such as power grids makes this one of the most infrastructure-heavy transformations in modern history. For investors, listed energy infrastructure could be a more accessible route to harness this mega force.

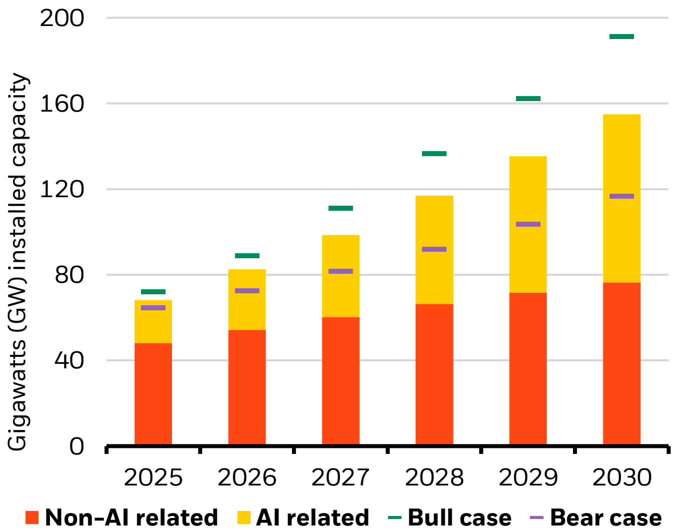
Digitalization is adding a new layer of physical investment. The explosion of data creation, AI training and cloud services is driving exponential growth in computing capacity. Our base-case projections show global datacenter load nearly doubling by 2030 from 2025 levels. See chart on the left. This extends beyond datacenters to fiber networks and 5G towers, which are now critical enablers of productivity and economic resilience.

Geopolitical fragmentation is intensifying these pressures, prompting fossil fuel-importing nations – home to roughly 70% of the world's population – to invest in infrastructure that cuts dependence or boosts flexibility, from renewables to LNG terminals. Governments are responding by seeking more secure, home-grown energy supplies — including renewables and, in many cases, nuclear power. The push for resilience extends well beyond energy. Fragmentation is spurring investment in transport corridors, access to critical minerals and sovereign AI capabilities as nations seek greater control over strategic technologies.

Against these structural forces driving demand come mounting constraints on traditional sources of infrastructure finance like government spending and banks. Public debt ratios in major economies averaged more than 120% of GDP according to the IMF, leaving limited fiscal room for new investment. Regulation since the global financial crisis has curtailed the banking sector's capacity for long-dated project lending, with their share of corporate funding falling from about 70% in 1980 to below 40% today (*sourcing*). McKinsey and G20 estimates point to total infrastructure capital expenditure of around $84 trillion through 2040, leaving a funding shortfall of roughly $12–15 trillion on current trends. This mismatch — rising demand meeting constrained public-sector finance — is a defining feature of today's investment landscape and positions infrastructure as a core long-term opportunity for private capital.

The AI buildout boom

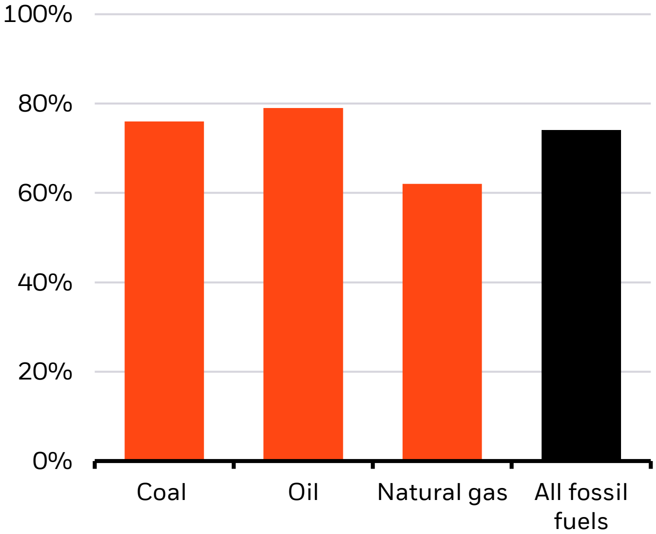
Estimated global datacenter capacity



Forward-looking estimates may not come to pass. Source: BlackRock Investment Institute, November 2025. Notes: Bars show estimated global datacenter capacity split between non-AI (orange) and AI related (yellow) categories. Green markers denote the bull case, while pink markers show the bear case for total datacenter capacity.

Fossil fuel import dependence

Share of world population living in net importers of fuel



Source: BlackRock Investment Institute with data from International Energy Agency, World Energy Balance, as of April 2025. Note: Share of population living in net importer countries by fuel types (%).

A timely entry point

The structural forces driving infrastructure demand are long term. What makes the current moment notable, in our view, is that valuations do not reflect what we see as a compelling fundamental backdrop, and are being driven, in part, by temporary macro concerns. Listed infrastructure trades at nearly 20% below its long-term average on enterprise-value-to-EBITDA multiples — below the levels seen during the global financial crisis and comparable to those at the height of the COVID-19 shock. See chart on the left.

The discount likely reflects lingering uncertainty about interest-rate paths and ignores robust bottom-up fundamentals, in our view. Infrastructure revenues are typically regulated or contracted, providing visibility on cash flows even through volatile cycles. Over time, we expect valuations to better reflect those fundamentals as attention shifts from short-term macro risk to underlying earnings strength, creating an attractive opportunity now.

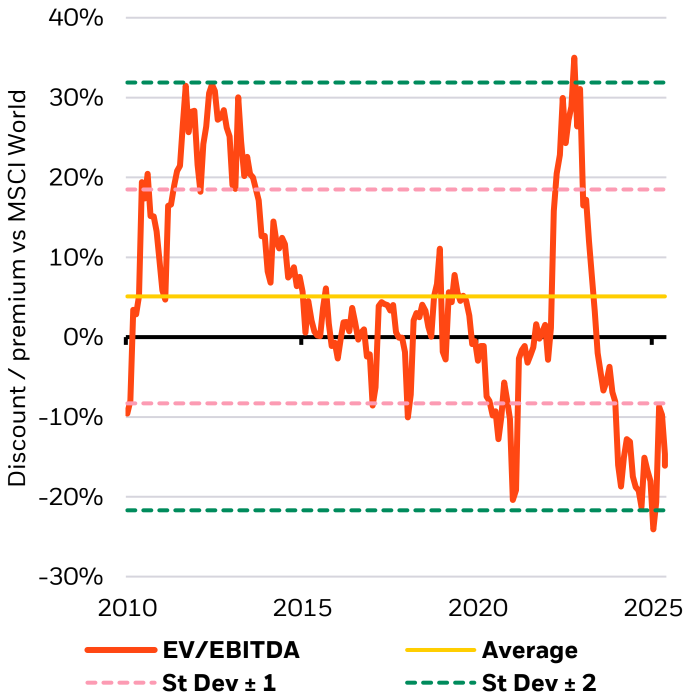
Listed infrastructure has delivered steady profit growth, a notable outcome for a sector with a defensive profile. Data from Bloomberg shows that over the past decade, earnings per share have risen roughly in line with global developed-market equities, supported by expanding regulated asset bases in utilities and transport, rising revenues from digital and communications infrastructure, and persistent inflation also often lifting revenues. Consensus forecasts point to a similar trajectory in the years ahead as seen on the chart on the right. This means that, somewhat counter-intuitively, the sector's defensive characteristics need not come at the expense of growth, reflecting its exposure to essential services with robust and steady mega forces-driven demand and inflation-linked pricing.

Artificial intelligence is adding to the opportunity now. The rapid deployment of AI is driving a surge in demand for data centers, power networks and communications backbones — infrastructure essential to the technology's adoption regardless of which companies ultimately lead. In our view, this build-out highlights how infrastructure sits at the center of today's transformation and underscores the case for exposure now.

The macro backdrop also looks supportive. The sharp upward pressure on yields that weighed on valuations has eased as many central banks begin to cut rates. We do not expect aggressive easing given sticky inflation, yet that mix — moderating real yields alongside sustained nominal growth — favours assets with predictable, inflation-linked cash flows. We see this combination as a compelling entry point into infrastructure today, where current market pricing offers attractive compensation for long-duration exposure. The same logic extends to private infrastructure equity: the opportunity reflects favorable pricing and, as we explore on the following page, depends on investors' willingness to take deliberate allocations and accept varying degrees of illiquidity.

A valuation discount...

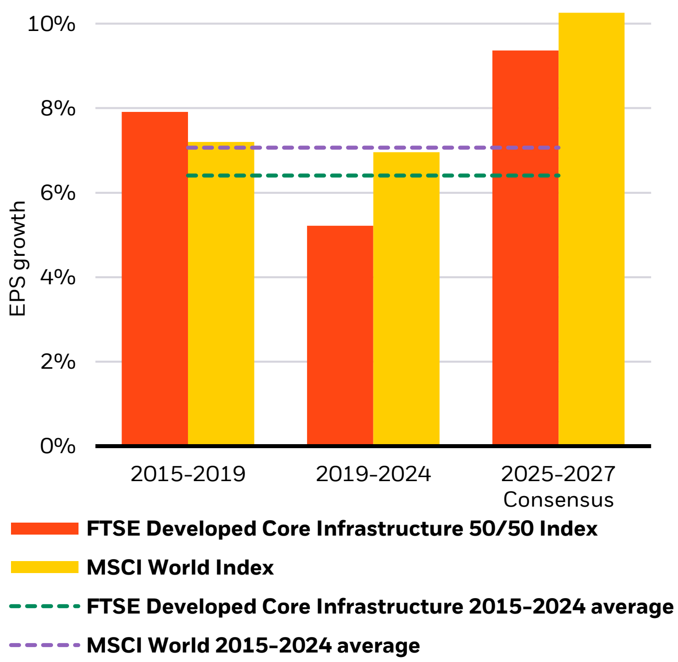
Listed infrastructure vs MSCI World valuations, 2010-2025



Past performance is no guarantee of future results. Source: BlackRock Investment Institute, with data from MSCI, FTSE, November 2025. Notes: The orange line shows the EV/EBITDA ratio difference between the FTSE World Core Infrastructure 50/50 index and MSCI World valuations. Positive values indicate overvaluation, while negative values indicate undervaluation vs the benchmark. The yellow line shows the average, while pink and green dashed lines show standard deviation ±1 and ±2 ranges around the average.

... at odds with earnings trends

Listed infrastructure vs MSCI World earnings, 2015-2027



Past performance is no guarantee of future results. Forward-looking estimates may not come to pass. Source: BlackRock Investment Institute, with data from Bloomberg, November 2025. Notes: Orange and yellow bars show EPS compound annual growth rates (CAGRs) for selected periods for the FTSE Developed Core Infra 50/50 Index and MSCI World, respectively. Green and purple dashed lines show the average CAGR between 2015 and 2024.

Sizing infrastructure exposures

The valuation opportunity highlights why the "here and now" matters. The next step is assessing how much infrastructure exposure can fit in diversified portfolios. Our analysis, based on 20-year expected returns for the full set of assets covered by BII's capital market assumptions, shows that a representative global 70/30 stock-bond portfolio has an implicit infrastructure-like exposure of about 4–5% through existing equity and credit holdings, such as utilities and transportation-related sectors. We find there is scope to add deliberate exposure — in both listed and private markets — without increasing overall portfolio risk.

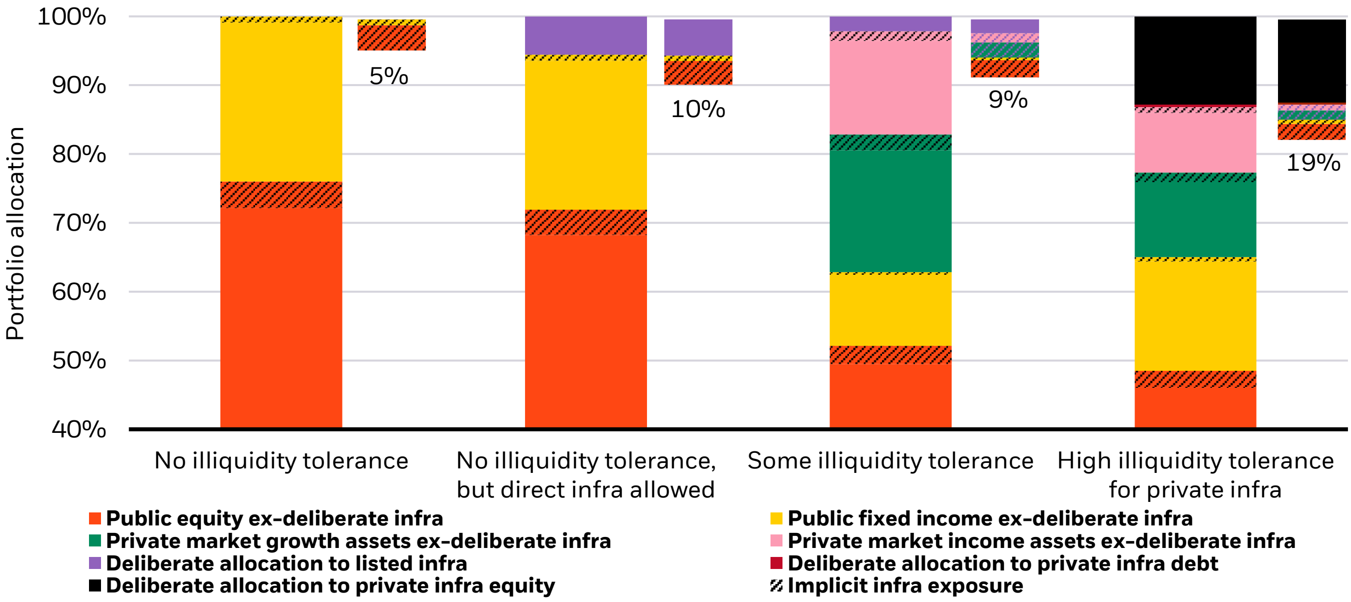
To illustrate, we use our indicative strategic asset allocation (SAA) for a U.S. public pension as a representative institutional case. It targets the risk of a traditional 70/30 portfolio and allows up to 35% in private markets. The chart below shows how infrastructure allocations may rise as investors accept greater illiquidity— that is, a willingness to commit part of their capital to assets that cannot be traded daily. In the indicative SAA (left-most column) with no illiquidity tolerance and no deliberate infrastructure allocation, portfolios hold only implicit infrastructure exposure through public markets. Allowing deliberate allocations adds listed infrastructure, taking total allocations to around 6 %. Listed infrastructure enters the mix first, raising total exposure without adding illiquidity. As capacity for private assets increases, part of that listed exposure is replaced by private infrastructure holdings, which become the dominant form of deliberate allocation at higher illiquidity levels.

As illiquidity tolerance increases, private-market allocations rise more broadly, with total private markets reaching the cap of 35%. Within that, private infrastructure equity and debt enter the mix, lifting total infrastructure exposure to roughly 10–19%, depending on risk and liquidity preferences. In practice, listed infrastructure can also serve as a liquid bridge while private commitments are being drawn down — a point we revisit later in the paper. This total includes both implicit exposure across public and private markets (about 5–7%) and deliberate allocations to listed and private infrastructure (about 2–13%). Across these cases, adding infrastructure improves portfolio efficiency: expected returns rise for the same level of volatility — a shift upward in the "efficient frontier". The gains come from exposure to long-duration, inflation-linked cash flows that behave differently from traditional equity and credit risk.

For certain investment goals — particularly those focused on income generation or liability matching — other types of exposure within infrastructure are also worth consideration, in our view. Notably, infrastructure debt - a growing but still under-represented part of the asset class. The global pool — around U.S.$160 billion — remains small relative to the multi-trillion-dollar investment needs created by AI-related infrastructure and the low-carbon transition build-out. Most of the market is investment-grade, and the lion's share of capital comes from pension funds and insurers whose mandates typically target that segment. For insurers in particular, infrastructure debt offers higher capital efficiency than equity, attractive yield spreads over public bonds and partial inflation protection — features that have historically supported stronger performance during high-inflation periods. Opportunities also exist in high-yield infrastructure debt, a smaller and less crowded market. Investors able to underwrite additional structural complexity and accept limited liquidity can find compelling entry points and greater pricing power as financing demand expands.

Higher illiquidity tolerance allows more infrastructure exposure

An illustration of how infrastructure allocations may evolve in portfolios with larger illiquidity tolerance



Sources BlackRock Investment Institute, October 2025.Notes: Analysis is based on BII's U.S. Public Pension model portfolio (70/30 risk target, 35% private market cap, 20-year horizon). The opportunity set includes investment grade and high yield infrastructure debt, listed infrastructure, and private infrastructure equity. We test portfolios under varying levels of illiquidity tolerance – from none to high – to assess how deliberate infrastructure exposure affects performance. Results show that adding infrastructure, whether listed or private, can enhance portfolio returns without materially changing risk across different volatility targets. The small floating bars show the cumulative infrastructure exposure for each corresponding scenario.

From under-owned to core holding

The under-allocation to infrastructure is largely behavioral and technical, we think. For years, infrastructure has lacked the familiarity and visibility of mainstream equities and bonds. Few mandates include a dedicated infrastructure allocation, and benchmarks offer limited guidance. Many investors have viewed it as a niche, illiquid alternative rather than a core portfolio component — reinforced by the absence of explicit infrastructure benchmarks and investable private-market indices, and by the narrative attention captured by technology, crypto or other private-market themes.

Infrastructure investing has long been difficult to access. It has traditionally required specialized expertise, long investing horizons and comfort with complex structures. In private infrastructure assets, large minimum commitments, illiquidity, limited transparency and long lockups have restricted participation relative to public markets. These features made it hard for investors to build meaningful exposure. The result is a persistent mismatch between infrastructure's economic importance and its share of institutional portfolios. Our indicative strategic asset allocations hold a much larger share of infrastructure than what we observe in typical client portfolios. See chart below on the left.

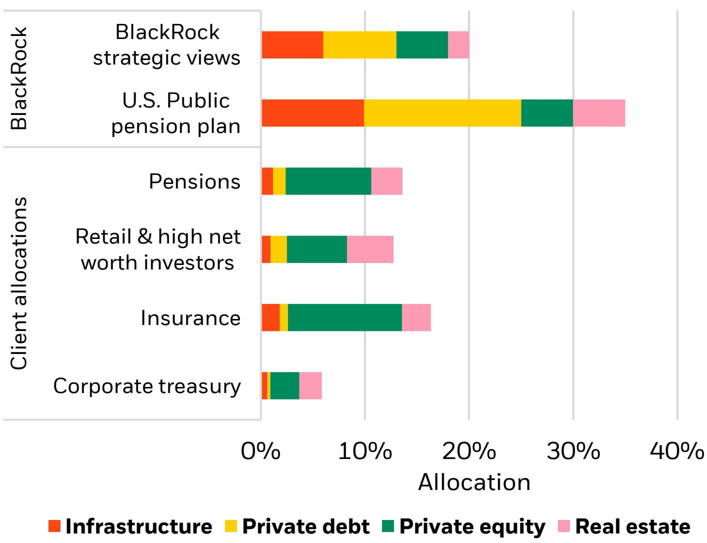
The picture is already changing. Since 2005, listed infrastructure has grown at a 7% compound annual rate according based on the FT Wilshire GLIO Developed Infrastructure Index and private-market infrastructure assets under management have more than doubled since 2018 and now account for roughly 12% of total private-market AUM - see chart on the right. Growth has outpaced private credit in recent years despite attracting less attention. This reflects both broader familiarity among investors and an expanding opportunity set across energy, transport and digital networks.

Long-standing access barriers are easing, supporting greater participation. Infrastructure funds have traditionally involved long-dated capital commitments, often running 10–15 years with multi-year investment periods — timelines that don't suit every investor. One change - a growing secondary market - is helping bridge entry and exit needs. Infrastructure is well suited to secondaries. Many underlying assets — regulated utilities, contracted power generation and digital networks — operate well beyond a fund's life. That duration mismatch has created a natural supply for secondary transactions, where investors buy into existing funds or assets - typically from limited or general partners - midway through a fund's life rather than at inception. The cash flows are often contracted and, in many cases, inflation-linked, which supports clearer pricing and smoother portfolio transfers. For investors, buying into existing portfolios also accelerates deployment and shortens the path to distributions, offering diversified exposure without a full lock-up. Transaction volumes reached record levels in early 2025, highlighting growing use of secondaries as an active portfolio-management tool. Tokenization is another development that could potentially broaden access. It can turn large, unlisted holdings such as real estate or infrastructure into smaller, more accessible units, broadening participation in markets long dominated by large institutions.

Demand for semi-liquid funds is rising as wealth and retail investors seek access to private markets with greater flexibility. Unlike traditional closed-end funds with fixed yearslong lives, these are open-ended with regular opportunities to subscribe or redeem at capped amounts to manage liquidity risk and protect investors. Semi-liquid funds can democratize access to private markets but may also create vulnerabilities and longer-term risks if investors do not fully evaluate the risks.

Typical investors underexposed to infra

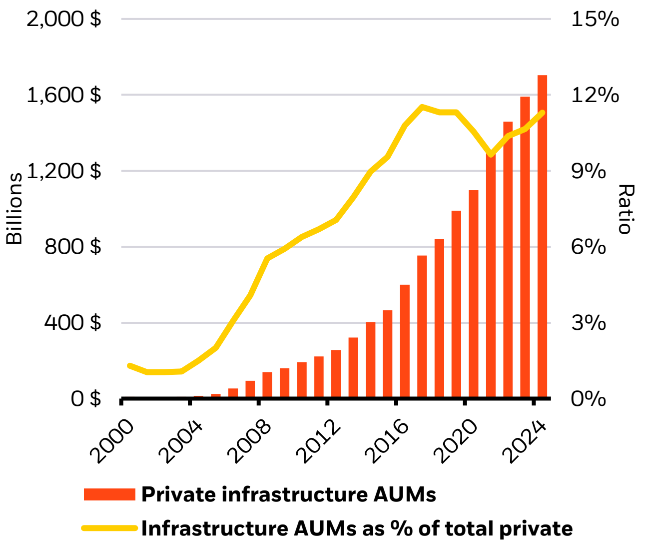
Indicative strategic asset allocations (ISAAs)



Source: BlackRock Investment Institute, November 2025. Note: The chart shows our indicative strategic asset allocations (ISAAs) for U.S. public pension plan and survey-based client allocations. Survey source: McKinsey Cube, as of May 2025; 2024 data reflects estimates based on base case scenarios.

A growing share

Infrastructure as a share of total private assets, 2000-2024



Past performance is no guarantee of future results. Source: BlackRock Investment Institute, with data from Preqin, November 2025. Note: Orange bars show Private infrastructure AUMs, including private equity and private debt. The yellow line shows Infrastructure AUMs as a % of total private AUMs.

How to build infrastructure exposures

Infrastructure offers distinctive portfolio benefits — stable cash flows, inflation linkage and diversification — yet it remains broadly under-represented in portfolios, we think. Our analysis suggests institutional portfolios could hold 10–18 % in infrastructure versus the 4–5 % we typically observe. The investable universe remains finite, so allocations of that size cannot materialize overnight. We see scope for early adopters to secure exposure while capacity and pricing remain attractive. The next step is implementation.

Many portfolios include infrastructure-like assets through utilities, transport, energy and communications sectors within public equity or credit benchmarks. Identifying and quantifying these implicit exposures establishes a baseline for any deliberate allocation. We find that adding listed infrastructure can improve portfolio efficiency — raising expected returns relative to volatility — even within public-equity sleeves. See chart on the left.

We also consider the relationship between public and private markets. Listed and private infrastructure often reprice at different speeds, though they are linked to the same underlying assets. We think this allows adjustment between listed and private holdings as valuations and rates shift, without changing overall exposure. For investors able to access private markets, infrastructure can play a differentiated role distinct from private equity or private credit due to its long-duration, often inflation-linked cash flows and lower correlation to broader markets.

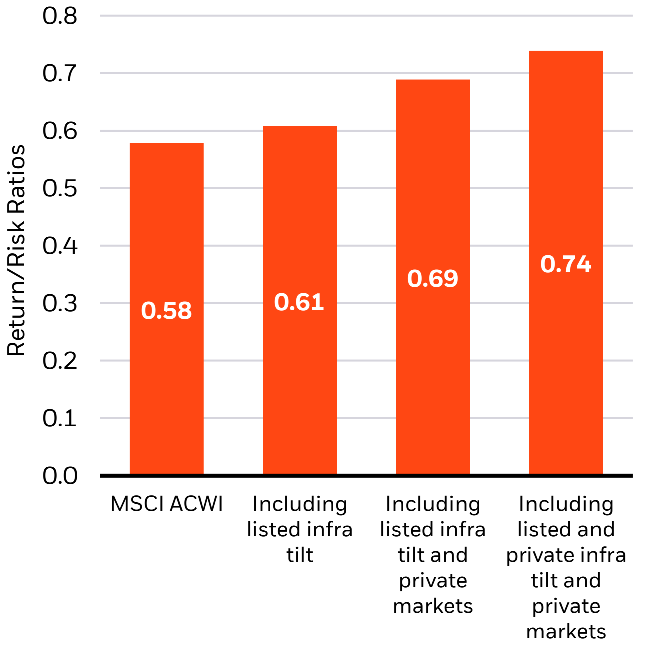
Information asymmetry is inherent to private markets – and especially to infrastructure – where data are scarce, fragmented and relationship-driven. Success rests on an information edge built through scale, expertise and technology. Scale expands reach, expertise improves judgment, and technology helps turn disparate data into insight. That edge helps managers to uncover value and navigate complexity across primaries, secondaries and co-investments.

During the ramp-up phase – the period between committing to private funds and reaching full target allocations – investors can use listed infrastructure as a liquid bridge. This maintains exposure to broadly similar underlying themes being underwritten privately, such as power generation, power networks and digital infrastructure. The listed sleeve can generate income and offset cash drag, then be trimmed in line with expected capital calls. Using sector and regional guardrails, a predefined commitment plan to shift from listed to private exposure and disciplined rebalancing helps manage equity-style volatility and interest-rate sensitivity. As the plan progresses, listed and private infrastructure returns tend to move more closely together – often within a year. The result is a smoother transition into private holdings while staying anchored to the infrastructure opportunity set.

Manager selection also matters. Performance dispersion among infrastructure manager is wider than in many other growth private markets, and top-quartile managers have historically generated substantial excess returns; we find. See chart on the right. Rigorous due diligence and diversification across region, strategy and vintage are key for alpha.

Tilting into infra

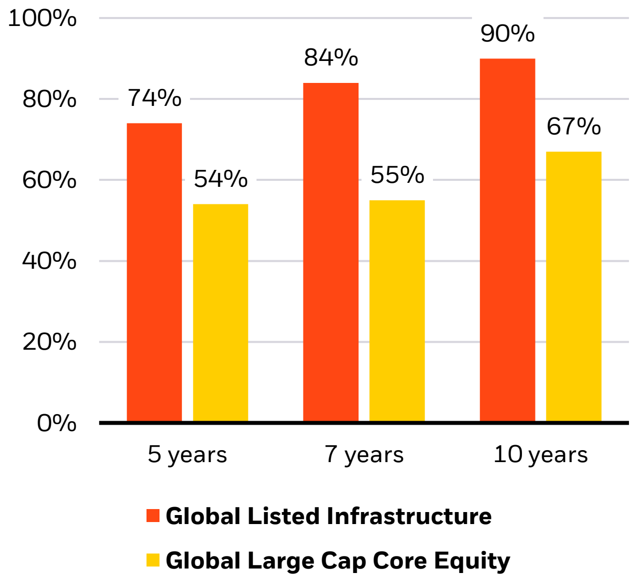
Risk-adjusted performance of hypothetical 70/30 portfolio



Past performance is not indicative of future results. Ratios are hypothetical and for illustrative purposes only. Source: BlackRock Investment Institute, with data from Preqin, Aladdin, Bloomberg, November 2025. Notes: MSCI ACWI refers to the MSCI All Country World Index, representing global equity markets. Performance metrics based on 20-year CMAs, expressed in USD. Return/Risk ratio calculated as annualized return divided by annualized volatility over a 20-year investment horizon. 'Infra tilt' indicates deliberate allocation to infrastructure assets. 'Private markets' includes private equity, private credit, private real estate, and private infrastructure investments.

Manager selection matters

Share of outperforming fund managers by category



Past performance is no guarantee of future results. Source: BlackRock Investment Institute, with data from Bloomberg, Preqin and eVestment, as of December 2024. Note: eVestment categories include, Global REIT, Global Infrastructure and Global Large Cap Core Equity. Analysis based on classifications of managers in eVestment universe and monthly returns relative to the respective benchmark for each manager, which may differ from manager to manager. Performance is gross of fees with each strategy compared to their own identified benchmark.

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