

Global Listed Infrastructure

Navigating Market Uncertainty –
2025 and Beyond

Executive Summary

Global listed infrastructure, remains a defensive asset class, well-positioned amid geopolitical and economic uncertainties in 2025.

These assets offer exposure to several key investment themes, including inflation protection through embedded pass-through mechanisms, better diversification from broad global equities – which appear expensive on nearly every valuation metric following the AI-driven rally since late 2023, raising concerns about potential downside risks and lower return expectations going forward –, and the ongoing transition to a lower-carbon world.

Additionally, the growing trends in data infrastructure, renewable energy, and sustainable transportation further bolster the long-term appeal of listed infrastructure investments.

Background

Global markets have entered 2025 navigating a complex economic landscape shaped by shifting monetary policies, fiscal directions, and evolving geopolitical risks. Following the 2024 U.S. elections, the newly elected Trump administration has emphasized domestic economic growth, deregulation, and potential fiscal stimulus, all of which carry significant implications for listed infrastructure, particularly in the transportation, utilities, energy, and data infrastructure sectors.

After a prolonged period of monetary tightening, major central banks began easing policy in late 2024 to support slowing economic growth and temper inflation. However, the new U.S. administration's push for fiscal stimulus—potentially including tax cuts and increased infrastructure spending—has reignited concerns about inflationary pressures. Adding to this uncertainty, proposed tariffs and escalating trade tensions could drive up import costs, further complicating the inflation outlook.

This dynamic may lead to increased volatility in interest rate expectations across global markets, particularly for rate-sensitive infrastructure assets. That said, in the medium term, a lower-rate environment remains broadly supportive for infrastructure investments, which benefit from stable cash flows and long-term contracts.

In parallel with these macroeconomic shifts, there is a renewed commitment to U.S. domestic infrastructure investment emerging as a key theme in 2025. Early indications suggest a focus on large-scale transportation, energy, and data infrastructure projects.

Traditional energy infrastructure, including pipelines and utilities, stands to benefit from policies favouring energy independence, while rising power demands driven

by artificial intelligence (AI) and cloud computing are accelerating investments in power grids and renewable energy projects.

The ongoing expansion of AI-driven technologies has also led to surging demand for data infrastructure. Companies involved in fibre-optic networks, telecommunications towers, and hyperscale data centres are well-positioned to capitalize on the growing need for high-speed connectivity and energy-efficient data centres. Infrastructure funds with exposure to digital assets stand to benefit from this megatrend.

At the same time, regulatory and policy developments are shaping the landscape. The administration's focus on deregulation has signalled a more favourable operating environment for listed infrastructure companies, particularly in the energy and real estate sectors.

At the same time, potential corporate tax reforms may influence investment flows, with tax incentives enhancing the appeal of infrastructure assets relative to other investment options. However, uncertainties surrounding trade policies and supply chain dynamics remain key considerations for investors with global exposure.

Sector-Specific Implications

- **Transportation & Industrial Infrastructure:** Increased investment in U.S. highways, railways, and airports could drive growth in the transportation sector. However, trade policy uncertainties—such as tariffs and rising tensions—could have a negative impact on global logistics and supply chains.
- **Utilities and Energy:** A renewed focus on energy independence in the U.S. may support traditional energy infrastructure, including pipelines and utilities. At the same time, AI-driven demand is accelerating the modernization of power grids and boosting investment in renewable energy projects.
- **Data infrastructure:** The global boom in AI, cloud computing, and digital transformation is fuelling record investments in data centres and fibre-optic networks. These trends position listed infrastructure companies to experience sustained expansion in the data infrastructure sector, which is increasingly seen as a core area of growth across international markets.

In the broader investment landscape, fiscal stimulus and deregulation may provide short-term support for U.S. equities, particularly in infrastructure and energy sectors. However, inflationary pressures and shifting trade policies introduce potential volatility.

Understanding infrastructure

Think of toll roads, electric and gas grids, water utilities, airports, or railroads as typical assets that infrastructure companies own and operate.

Unlike “real estate” assets such as commercial buildings, office buildings, industrial or residential buildings developed and managed by REITs, these infrastructure investments often share the following three characteristics.

First, they are vital to the social and economic structure and growth of a country, and backbone type analogies.

Second, they are long-lived tangible assets that require huge initial capital investments. Typically, governments have a central role in managing and financing such infrastructure. However, insufficient funding or modern cooperative models often leads to their partnerships with private sectors via Public Private Partnerships programmes.

And third, infrastructure assets have low operating costs with solid and stable sources of inflation-linked earnings once established. By its very nature, relative to other asset classes or sectors, the potential benefits of “infrastructure” can include

- (i) the highly inelastic demand for certain services such as water, energy, and highway access,
- (ii) limited competition or even monopolistic and protected position in the market – such as airports, and
- (iii) regulated prices, stable revenues, and long duration.

At Kernel, we believe that such traits can potentially bring in the following desirable investment characteristics:

- Infrastructure can deliver reliable and recurring sources of income irrespective of economic conditions, thus, has better downside protection in times of market instability.
- Infrastructure has a strong inflation-linkage in its revenue model, negating some of the effect of an environment with resurgent inflation concerns amid Trump's proposed tariffs and ongoing trade tensions.
- Infrastructure with strong historical returns and downside resilience can improve the risk-adjusted return profile of a mixed-asset portfolio.

Our Kernel Global Infrastructure Fund, launched in 2020, offers exposures to approximately 100 global companies, from 20 countries, which derive at least 70% of their cash flows from infrastructure line of business across **three major sectors**, including **transportation & industrials infrastructure** (own and operate physical

assets that move people, freights such as airports, highways & rail tracks, toll roads, ports as well as assets supporting the transportation of other commodities such as oil and gas), **utilities infrastructure** (own and operate physical assets that produce, transport, process and stores water, electricity, gas), and **data infrastructure** (own and operate physical assets that enable the movement and storage of information such as telecommunications towers and data centres).

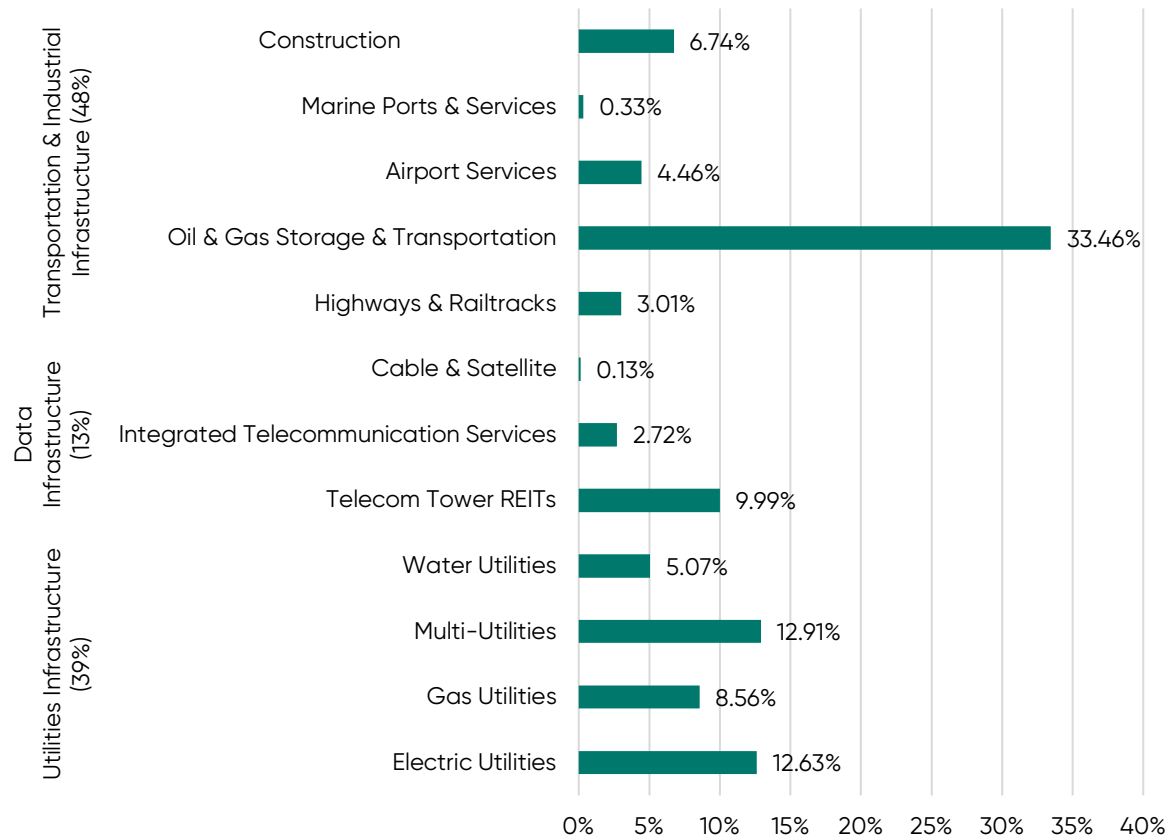


Figure 1: Sector breakdown of Dow Jones Brookfield Global Infrastructure Index on 28 Feb 2025.
Source: Kernel Wealth.

Global listed infrastructure – A unique combination of investment attributes

Infrastructure and utility stocks have been a staple in investment markets for many years, but it wasn't until the 1990s that the listed infrastructure asset class became more widely accessible to retail investors.

This shift occurred as a result of a global developed markets trend to partial or full privatization of government-owned assets. This allowed these assets to be listed on share markets, such as in New Zealand between 1987 and 1992. Over the past three decades, infrastructure assets have demonstrated strong downside

resilience during periods of high market volatility and have performed robustly during phases of higher-than-expected inflation and slowing economic growth.

Given the renewed focus on infrastructure investment under the new U.S. administration and the shifting dynamics in global markets, these assets stand to capitalize on both fiscal stimulus efforts and long-term structural trends, including the need for energy independence, data infrastructure expansion, and evolving regulatory landscapes.

The unique characteristics of infrastructure assets—such as their stable cash flows and long-term contracts—make them an attractive investment choice amid economic uncertainty, inflation pressures, and changing interest rate expectations.

1. Defensive and income-generating equities

As the global economy reached a turning point in late 2024, following a prolonged period of high interest rates aimed at curbing inflation, several central banks began easing their policies in response to slowing growth and cooling inflation.

This shift in monetary policy, alongside ongoing fiscal adjustments and evolving geopolitical risks, sets the stage for a more complex and uncertain economic landscape in 2025.

Entering 2025, the global economy is balancing efforts to stimulate growth with the challenge of managing inflationary pressures. In the United States, the newly elected Trump administration's focus on stimulating domestic economic growth, deregulation, and fiscal stimulus—potentially including tax cuts and increased infrastructure spending—adds further complexity to the outlook.

While these measures are expected to provide short-term economic support, they also heighten concerns about rising inflation, particularly with the risk of trade tariffs and escalating global trade tensions that could drive up import costs.

Against this backdrop of shifting monetary policies and fiscal uncertainties, global listed infrastructure stands out as an attractive defensive asset class. The stable and resilient cash flows of infrastructure assets, particularly in sectors such as transportation, utilities, energy, and data infrastructure, position them well for 2025.

As inflationary pressures resurge and economic growth moderates, infrastructure investments continue to offer a compelling blend of income generation and downside protection.

Global listed infrastructure can be considered 'defensive' equities, mostly because of its lower downside risk relative to other equity sectors, supported by its solid and stable cash flows no matter what economic conditions prevail.

To be more specific, the underlying assets that listed infrastructure companies own and operate fall into two main categories, including

- (i) regulated assets and
- (ii) user-pays assets.

Firstly, regulated assets—such as electricity, water, and gas transmission and distribution networks—are subject to government oversight. While demand for these utilities remains steady, governments often have the authority to set or adjust the pricing and profits earned by the managing companies.

If profit margins exceed a certain threshold, companies may be required to return part of their revenue to consumers through lower future prices. Conversely, if a company's profits fall below a set rate, it may be allowed to raise prices. This regulatory framework provides a built-in mechanism for stability, which helps ensure that companies managing regulated infrastructure assets maintain a reliable earnings profile over time.

Secondly, user-pays assets, such as railroads, airports, and telecommunication towers, typically have long-term contracts that lock in pricing and terms for extended periods. This arrangement ensures a predictable revenue stream, particularly valuable in times of macroeconomic uncertainty, rising inflationary pressures, slowing growth, and global trade tensions.

Many of these contracts include clauses allowing price adjustments based on inflation, enabling companies to raise prices in line with inflationary trends. This inflation pass-through feature helps safeguard profit margins and maintain consistent cash flows.

Additionally, user-pay assets provide essential services, such as communication networks through telecommunication towers and transportation via railroads, which remain in high demand despite economic fluctuations. The enduring demand for these services underpins stable cash flows.

Finally, the rapid growth of artificial intelligence (AI) is fuelling significant investments in data infrastructure. Companies are expanding their data centre capacities and upgrading their networks to meet the increasing demands of AI, which requires vast data volumes and computational power.

Together, these factors provide a solid foundation for the income generation and potential earnings growth of listed infrastructure, even amid a volatile market environment shaped by shifting macroeconomic policies and geopolitical risks.

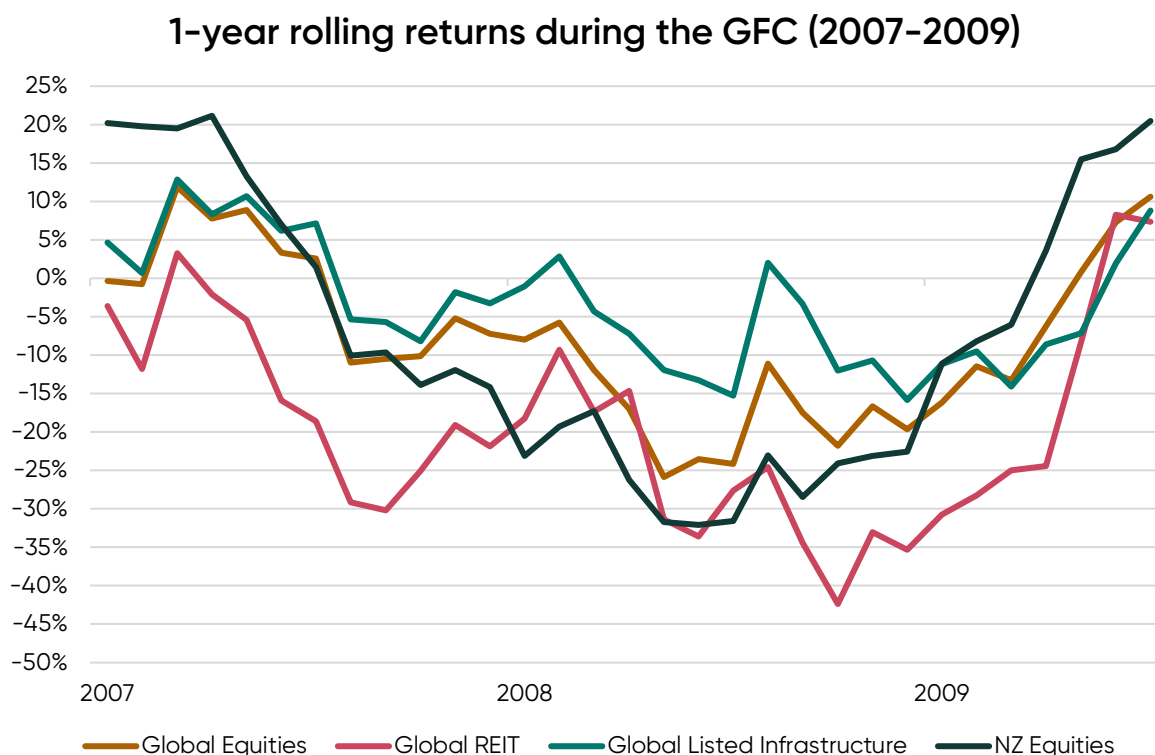


Figure 2: 1-year rolling returns of major asset classes during the GFC. Source: Kernel Wealth.

Notes: The indices used as representative for Global REITs, Global Infrastructure, Global Equities, NZ Equities include S&P Global REIT (Total return index NZD), Dow Jones Brookfield Global Infrastructure (Total return index NZD), S&P Global BMI (Total return index NZD), and S&P NZX 50 (Gross with imputation index NZD), respectively.

Figure 2 illustrates the 1-year rolling performance of four major asset classes during the Global Financial Crisis (2007–2009). All these four asset classes experienced massive drawdowns, but for the Global Infrastructure, the magnitude of negative returns was smaller: -6.84% on average across the 2-year period, compared to -22.26%, -12.18% and -14.29%, respectively for Global REITs, Global Equities and NZ Equities (returns in NZD).

This resilience is reflected in listed infrastructure’s long-term performance, consistently ranking among the top-performing asset classes across various periods (Table 1). Over the past 20 years to 28 February 2025, it has delivered an average 12-month rolling return of 10.56%, outperforming global equities (9.95%), global REITs (8.10%), and NZ equities (9.48%).

The sector’s essential-service nature—spanning utilities, transport, and energy infrastructure—provides stable cash flows and downside protection, reinforcing its role as both a growth driver and a defensive anchor in diversified portfolios.

Returns to 28 Feb 2025	Global Listed Infra- structure	Global Equities	Global REIT	US Bonds	NZ Equities	NZ Bonds
1 year	28.68%	24.32%	22.21%	15.04%	8.14%	7.20%
3 years	8.39%	18.89%	6.92%	4.74%	4.66%	3.83%
5 years	11.08%	15.66%	10.41%	0.85%	2.80%	-0.56%
10 years	8.84%	12.36%	7.23%	3.30%	10.10%	2.47%
15 years	11.13%	11.97%	9.56%	4.00%	11.84%	3.66%
20 years	10.56%	9.95%	8.10%	4.65%	9.48%	4.64%

Table 1: Average 12-month rolling returns of major asset classes (in NZD) across different periods.

Furthermore, thanks to the relatively stable earnings derived from the underlying assets, the infrastructure companies can, therefore, provide predictable income distributions.

As illustrated in Figure 3, as of February 28, Global Infrastructure ranks among the top asset classes in terms of dividend yield.

The current yield is calculated based on total dividends declared over the past 12 months relative to the current share price. These figures highlight the appeal of global infrastructure as an income-generating asset class, offering competitive yields relative to equities while maintaining a level of stability that is often sought after by income-focused investors.

Current yields

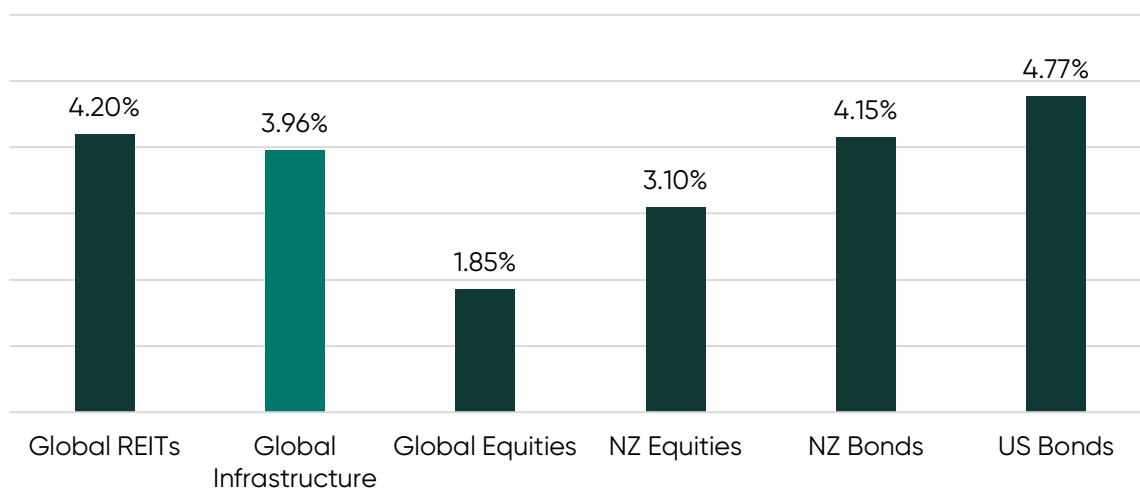


Figure 3: Current yields of various asset classes. Source: Kernel Wealth.

Notes: Global REITs, Global Infrastructure, Global Equities and NZ Equities represent current dividend yield, Bonds represent yield to maturity, as of 28 February 2025. The indices used as representative for Global REITs, Global Infrastructure, Global Equities, NZ Equities, US Bonds and NZ Bonds include S&P Global REIT, Dow Jones Brookfield Global Infrastructure, S&P Global BMI, S&P NZX 50, Bloomberg US Aggregate Total Return Value Unhedged USD, and S&P NZ Aggregate Bond, respectively.

2. Diversified resilience – Sector performance in the 12 months to 28 February 2025

The Dow Jones Brookfield Global Infrastructure Index showed strong overall performance over the 12 months ending 28 February 2025, driven by gains in utilities as well as transportation & industrial infrastructure, while data infrastructure had mixed results. Figure 4 below breaks down the index performance by sectors 12-month to end of February 2025.

Utilities infrastructure benefited from stable demand and regulatory support, with multi-utilities (+30.40%) and Gas Utilities (+22.87%) leading due to diversification, energy security concerns, and inflation-linked tariff adjustments. Electric Utilities (+14.38%) and Water Utilities (+19.23%) also performed well, supported by grid modernization, decarbonization efforts, and water infrastructure investments.

Transportation & Industrial Infrastructure was the best-performing sector, led by Oil & Gas Storage & Transportation (+51.34%) and Marine Ports & Services (+45.58%), benefiting from increased global trade and energy logistics demand. Airport Services (+22.66%) saw strong post-pandemic recovery, while Highways & Railtracks (+5.16%) gained from rising toll revenues. The Construction & Engineering (+9.06%) sector was supported by infrastructure investments, though rising labour and material costs constrained higher gains.

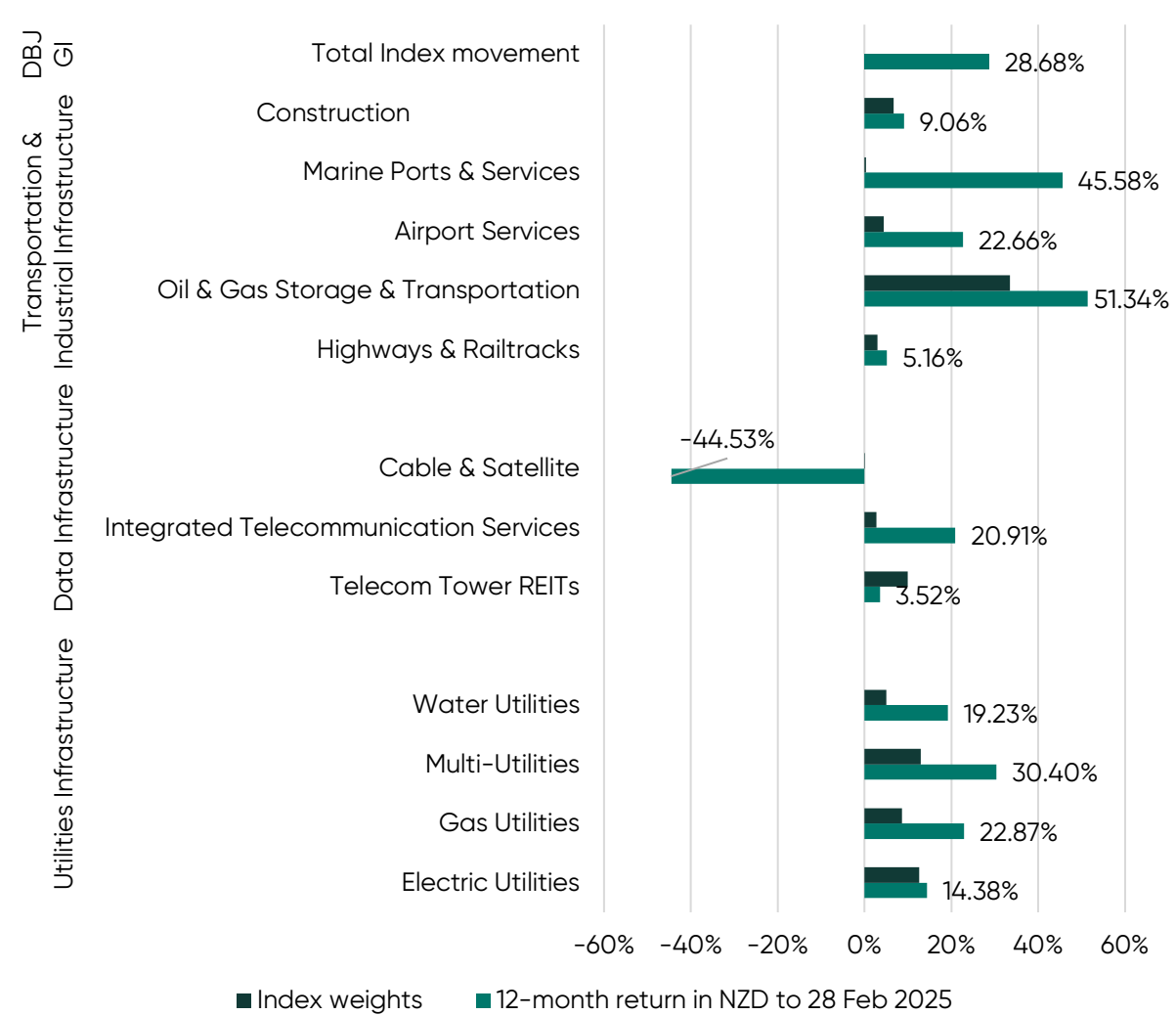
In Data Infrastructure, Integrated Telecommunication Services (+20.91%) performed well due to growing demand for mobile data and broadband, while Telecom Tower REITs (+3.52%) had limited upside due to interest rate pressures.

Data centres, typically classified under Telecom Tower REITs, had only modest returns despite booming AI demand, as higher interest rates increased borrowing costs, power supply constraints limited expansion, and long-term lease structures delayed revenue adjustments.

Meanwhile, Cable & Satellite (-44.53%) was the worst-performing sub-sector, dragged down by the structural declines in satellite TV demand, as consumers shifted to streaming services, and intense competition from telecom operators offering bundled internet and TV packages.

Additionally, high capital expenditure requirements, fibre optic and 5G competition, regulatory hurdles, and geopolitical risks further pressured margins and growth. However, with Cable & Satellite comprising just 0.13% of the index, its steep losses had only a marginal impact on the index’s overall return.

Overall, transportation and energy-related infrastructure led index returns, while data infrastructure had a mixed outcome, and traditional utilities remained a stable performer in a volatile market.



Total Index movement breakdown	Data infrastructure	Transportation & Industrials infrastructure	Utilities Infrastructure
Sector weights	12.84%	48.00%	39.17%
Sector returns	0.89%	19.11%	8.67%

Figure 4: Sector performance breakdown of Dow Jones Brookfield Global Infrastructure Index 12-month. Source: Kernel Wealth.

Moving forward, global listed infrastructure is well-positioned for steady growth in 2025 and beyond, driven by government investments in transportation, energy, and data infrastructure.

With a focus on energy independence, decarbonization, and the expansion of renewable energy, sectors like power grids and telecom towers are set to benefit from rising demand, especially with the growth of AI and cloud computing.

Deregulation and fiscal stimulus policies, particularly in the U.S., will further support infrastructure projects, while the global shift toward data and clean energy infrastructure presents strong investment opportunities.

Despite potential challenges from interest rate volatility and geopolitical risks, the sector's stable cash flows and long-term growth prospects make it an attractive choice for diversified portfolios.

3. Beneficial inflation characteristics

Inflation-linked revenues and low operating costs

While not all infrastructure assets are equally inflation-proof, a well-diversified listed infrastructure index often provides significant exposure to sectors whose revenues are indexed to inflation.

For example, our licensed index, Dow Jones Brookfield Global Infrastructure offers over 70% exposure to Utilities (e.g., electricity, water, or gas utilities) and Transportation (e.g., toll roads, airports, freight rails or marine ports). These sectors either achieve the inflation pass-through in their tariff negotiations with regulators or have the CPI-linked rates permitted via the concession agreements.

Moreover, as infrastructure assets typically have low operating costs once established, infrastructure companies can maintain their margins and mitigate the impact of inflationary cost environments. Capital structure also matters when it comes to inflation-hedging.

As such, many infrastructure companies are replacing floating-rate borrowings for fixed-rate debt instruments to cut exposure to potential rising short-term interest rates. Additionally, the long-term nature of fixed-rate infrastructure debt adds extra layer of protection to businesses over the rising inflation and rates.

Inflation beta

To test our hypothesis on the outperformance of Global infrastructure, relative to other asset classes, during environments with higher-than-expected inflation, we conducted a study examining the inflation beta (quantified in Table 2 as $\beta_{\text{inflation}}$) of

major asset classes- which shows the correlation between the real returns of an asset class and the “unexpected inflation”, being the difference between the year-over-year (y/y) realised U.S. inflation rate and lagged 1-year expected U.S. inflation. We used the United States data as it is readily accessible and often a large influence on New Zealand and global economies.

A positive inflation beta means that the asset class provided an inflation hedge in periods with unexpected inflation – i.e. a positive difference between realised inflation rate and lagged 1-year expected inflation. By contrast, a negative inflation beta implies that the asset class performs poorly when there is an inflation surprise or unexpected inflation.

Results from our regression model show that Global Infrastructure has the highest inflation beta (1.11) among the four major asset classes, statistically significant at the 10% level (or 90% level of confidence), suggesting that it offers a strong inflation hedge. In other words, Global infrastructure tends to perform well during periods of unexpected inflation, outperforming other asset classes such as Global REITs (0.96) and Global Equities (0.28). In line with conventional economic theory, US bonds had a negative inflation beta (-2.34), statistically significant at the 1% level, indicating its poor performance in inflationary environments.

Global Infrastructure y/y real return increased by 1.1%, on average, for every 1% increase in y/y inflation surprise

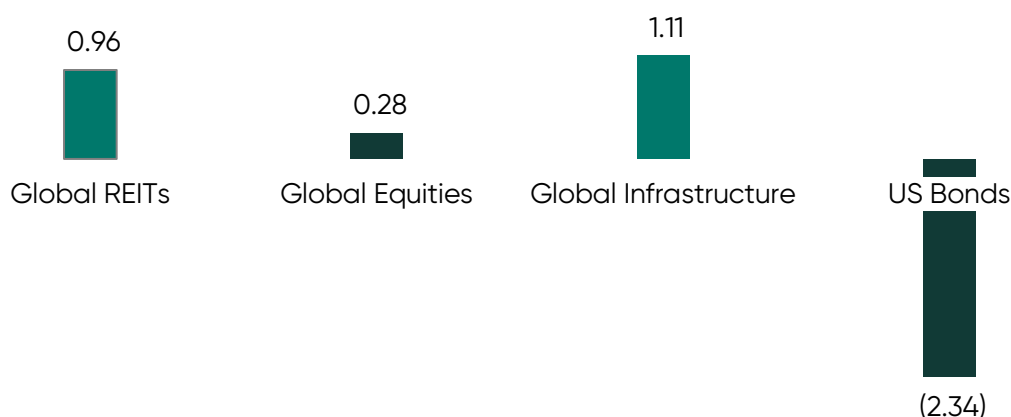


Figure 5: Inflation beta, December 2002–January 2025. Source: Kernel Wealth.

Notes: Inflation beta is the linear regression beta (equation shown in Table 2) of 1-year real returns to the difference between the y/y realised inflation rate and lagged 1-year-ahead expected inflation rate (unexpected inflation or inflation surprise) and the level of the lagged 1-year-ahead expected inflation rate. The indices used as representative for Global REITs, Global Infrastructure, Global Equities, and US Bonds include S&P Global REIT (TR - USD), Dow Jones Brookfield Global Infrastructure (TR - USD), S&P Global BMI (TR - USD), and Bloomberg US Aggregate Total Return Value Unhedged USD, respectively.

$$\text{Equation: } R_t = \alpha + \lambda * \text{exp.inf}_{(t-1)} + \beta_{\text{inflation}} * \text{unexp.inf}_t + \varepsilon_t$$

Asset class	Aver. y/y return (USD)	Aver. y/y return, Real (USD)	α	t-Stat	λ	t-Stat	$\beta_{\text{inflation}}$	t-Stat
Global REITs	10.19%	7.62%	0.47	8.68	-12.10	-7.24	0.95	1.46
Global Equities	11.16%	8.59%	0.40	9.02	-9.89	-7.14	0.29	0.54
Global Infrastructure	12.13%	9.56%	0.35	8.62	-7.66	-6.15	1.10*	2.22
US Bonds	3.22%	0.65%	0.11	10.81	-3.68	-11.70	-2.34***	-18.97

Table 2: Inflation beta of major asset classes. Source: Kernel Wealth proprietary analysis.

Past performance is no indicator of future performance. Notes: The y/y returns are the year-over-year returns with monthly frequency. α represents the intercept of the equation, λ and $\beta_{\text{inflation}}$ represents the coefficients on the **lagged 1-year-ahead expected inflation** and **unexpected inflation**, respectively. **Lagged 1-year-ahead expected inflation** is the 1-year lagged value of the median expected price change next 12 months (from Surveys of Consumers, University of Michigan, University of Michigan: Inflation expectation [MICH], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MICH>). **Unexpected inflation** is the difference between the year over year (y/y) realised inflation rate (U.S. CPI) and lagged 1-year expected inflation. The y/y realised inflation rate is measured by the y/y change in Consumer Price Index, all items for all urban consumers, published by the U.S. Bureau of Labour Statistics. R_t is the real y/y return in month t (in USD) of the four asset classes. The monthly y/y returns (in USD) of the S&P Global REIT, S&P Global BMI, Dow Jones Brookfield Global Infrastructure, and Bloomberg US Aggregate Total Return Value Unhedged USD during period from 31/12/2002 to 31/01/2025 are used to track the performance of Global REITs, Global Equities, Global Infrastructure and US Bonds, respectively. *, **, *** means statistically significant at the 10% level, the 5% level and the 1% level, respectively.

Infrastructure has historically outperformed in inflationary environments

In addition to its relative performance, Global Infrastructure has shown to deliver more attractive absolute returns than Global REITs, Global Equities and Bonds in periods of rising inflation and inflation surprise.

In particular, since December 2002, in rising inflation periods, i.e. periods with positive difference between the y/y realised inflation rate and its 1-year lagged

value, Global Infrastructure has earned, on average, 12.75% y/y real return, surpassing Global REITs and Global Equities significantly by 1.69% and 2.10%, respectively.

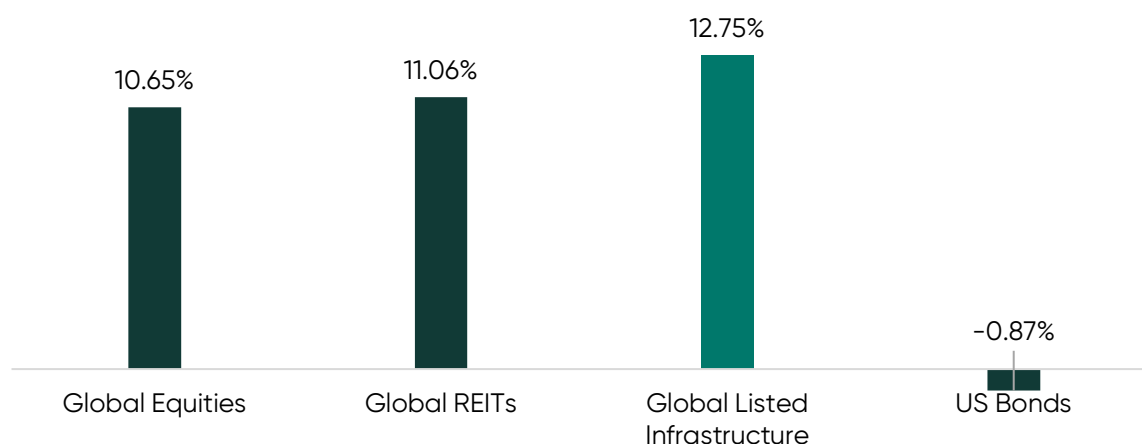


Figure 6: Average y/y real return (USD, frequency: monthly) in periods of rising inflation since December 2002. Source: Kernel Wealth.

Notes: The y/y returns (USD, frequency: monthly) of the S&P Global REIT, S&P Global BMI, Dow Jones Brookfield Global Infrastructure, and Bloomberg US Aggregate Total Return Value Unhedged USD during period from 31/12/2002 to 31/01/2025 are used to track the performance of Global REITs, Global Equities, Global Infrastructure and US Bonds. Periods of rising inflation are periods with positive difference between the y/y realised inflation rate (measured by the y/y change in U.S. CPI) and the 1-year lagged value of the realised inflation rate.

Notably, in periods with "higher-than-expected" inflation (inflation surprise) since December 2002, Global Infrastructure has on average outperformed Global Equities by 3.17%.

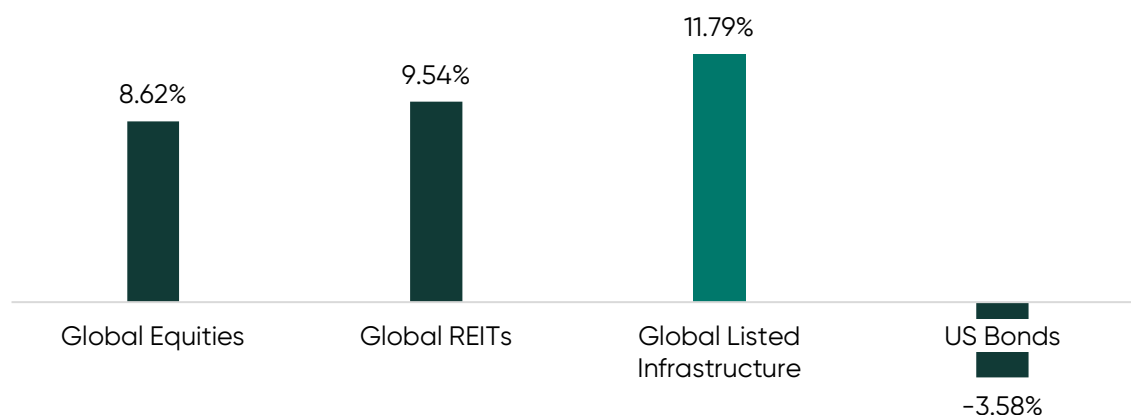


Figure 7: Average y/y real return (USD, frequency: monthly) in periods of inflation surprise since December 2002.

Source: Kernel Wealth. Notes: The y/y returns (USD, frequency: monthly) of the S&P Global REIT, S&P Global 100, Dow Jones Brookfield Global Infrastructure, and Bloomberg US Aggregate Total Return Value Unhedged USD during period from 31/12/2002 to 31/01/2025 are used to track the performance of Global REITs, Global

Equities, Global Infrastructure and US Bonds. Periods of inflation surprise are periods with positive difference between the y/y realised inflation rate (measured by the y/y change in U.S. CPI) and the 1-year lagged value of the median expected price change next 12 months (from Surveys of Consumers, University of Michigan, University of Michigan: Inflation expectation [MICH], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MICH>).

Figure 8 below illustrates the 12-month rolling returns of Global Equities and Global Infrastructure since December 2002. Historically, periods of **higher-than-expected inflation coupled with slowing global economic growth** have challenged most asset classes.

However, **Global listed Infrastructure has often demonstrated resilience**, benefiting from inflation-linked revenues and the essential nature of its assets. Examining past inflationary slowdowns provides insights into how different asset classes responded and highlights why infrastructure has historically outperformed during periods of economic stress.

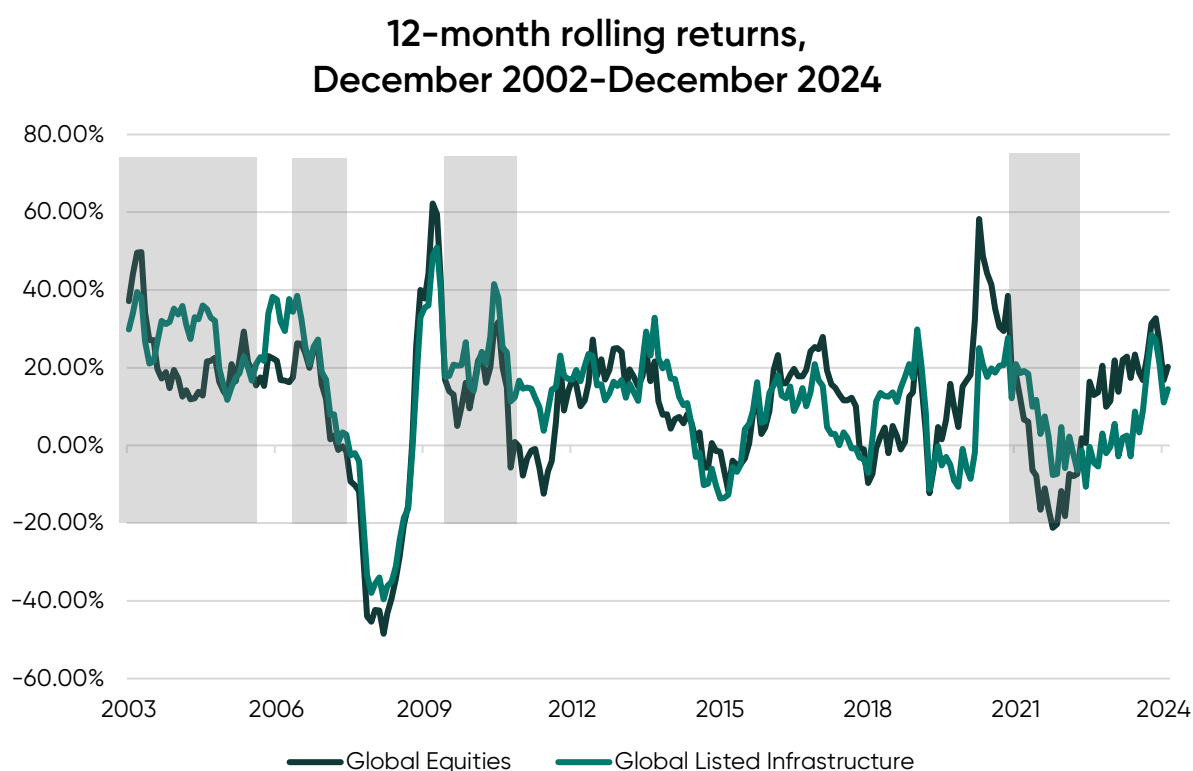


Figure 8: 12-month rolling returns of Global Equities and Global Infrastructure, Dec 2002–Dec 2024. Source: Kernel Wealth.

Notes: **Shaded areas represent periods with inflation surprise (higher-than-expected inflation) and slowing economic growth.**

Historical performance of the S&P Global BMI (TR- USD) and Dow Jones Brookfield Global Infrastructure (TR- USD) is used to track the performance of Global Equities and Global Infrastructure, respectively. Periods of inflation surprise are periods with positive difference between the y/y realised inflation rate (measured by the y/y change in U.S. CPI) and the 1-year lagged value of the median expected price change next 12 months (from Surveys of Consumers, University of Michigan, University of Michigan: Inflation expectation [MICH], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MICH>). Periods with

slowing economic growth are periods with negative difference between the y/y realised GDP growth rate (measured by the y/y change in the normalised GDP index for the U.S., published by OECD) and its 1-year lagged value.

Start Date	End Date	Global Listed Infrastructure	Global Equities	Global REITs	US Bonds
31/10/2003	31/08/2006	16.42%	11.33%	16.11%	1.70%
31/10/2006	31/10/2008	0.19%	-3.92%	-11.74%	3.73%
30/04/2010	30/11/2011	24.62%	13.90%	19.72%	4.99%
31/03/2021	28/02/2023	3.04%	-11.56%	-8.74%	-10.50%

Table 3: Average 12-month rolling returns during periods with inflation surprise and slowing growth of major asset classes.

Table 3 shows the average 12-month rolling returns of major asset classes across different periods characterized by elevated inflation and slowing economic growth.

Post-Dotcom Bubble Recovery (2003–2006)

Following the burst of the dot-com bubble in 2000, the global economy experienced a prolonged slowdown. In response, central banks, particularly the U.S. Federal Reserve, implemented interest rate cuts to stimulate growth.

The Fed, after keeping interest rates at 1% to support post-recession recovery, aggressively raised them to 5.25% by mid-2006 to curb inflation, making borrowing more expensive and cooling investment, particularly in housing.

Meanwhile, oil prices surged from around \$30 per barrel in 2003 to over \$70 by mid-2006, driven by rising global demand—especially from fast-growing economies like China and India—along with supply shocks from geopolitical tensions in the Middle East and disruptions caused by Hurricane Katrina in 2005.

Higher energy costs increased production expenses for businesses, squeezed corporate profit margins, and reduced consumer purchasing power, leading to stagflationary pressures—where inflation persisted despite slowing economic activity.

Despite the sluggish recovery, Global Listed Infrastructure delivered strong returns of +16.42%, slightly outperforming Global REITs (+16.11%) and Global Equities (+11.33%), while US Bonds lagged at +1.70%. The infrastructure sector's ability to maintain stable, inflation-linked cash flows from essential services like utilities and transport helped it thrive in this environment.

Global Financial Crisis (2006–2008)

This period saw the collapse of the U.S. housing market and the subprime mortgage crisis, leading to a severe credit crunch. The Federal Reserve initially kept rates high but was forced to **cut rates from 5.25% to 1%** as the financial system faced increasing stress.

The crisis deepened in 2008, culminating in the failure of Lehman Brothers and widespread financial panic. Meanwhile, oil prices spiked to an all-time high of **\$147 per barrel (July 2008)** before collapsing as global demand weakened.

Amidst this financial turmoil, Global Equities (-3.92%) and Global REITs (-11.74%) suffered steep losses. However, infrastructure proved far more resilient (+0.19%) due to its defensive characteristics and stable revenue streams.

Post-GFC Commodity Surge & Eurozone Debt Crisis (2010–2011)

Between April 2010 and November 2011, the post-crisis recovery faced headwinds as inflation surged and economic growth slowed. Initially, aggressive monetary stimulus, including near-zero interest rates and the Fed's QE2 program, fuelled a rebound in risk assets, with equities (+13.90%) and REITs (+19.72%) rallying. However, global listed infrastructure emerged as the best-performing asset class (+24.62%), benefiting from its stable cash flows, essential nature, and ability to pass inflation-linked costs to consumers.

Oil prices surged to ~\$100 per barrel, driven by renewed global demand and supply disruptions, further pushing up input costs and squeezing consumer spending.

At the same time, the Eurozone debt crisis intensified financial instability, with sovereign debt concerns in Greece, Italy, and other nations sparking fears of contagion, increasing market volatility, and driving investors toward defensive assets like infrastructure and U.S. bonds (+4.99%).

In the U.S., GDP growth fell below 2%, while inflation remained elevated due to rising commodity and energy prices. The combination of slowing economic momentum, persistent inflationary pressures, and heightened financial uncertainty underscored the resilience of infrastructure investments, which continued to deliver strong risk-adjusted returns amid market turbulence.

Post-COVID Inflation Spike & Slowing Growth (2021–2023)

The most recent period of high inflation and slowing growth occurred in the aftermath of the COVID-19 pandemic. As economies reopened in 2021, supply chain disruptions, labour shortages, and soaring energy prices triggered unexpectedly high inflation.

Central banks responded aggressively with interest rate hikes, which slowed economic growth and led to widespread market volatility. Global Equities suffered a significant decline of -11.56%, while Global REITs fell -8.74%. US Bonds experienced the worst performance (-10.50%) due to rising interest rates.

However, Global Listed Infrastructure was the only asset class to deliver a positive return (+3.04%), highlighting its defensive and inflation-resistant qualities.

Across multiple periods of higher-than-expected inflation and economic slowdowns, Global Listed Infrastructure consistently demonstrated resilience, outperforming both Global Equities, Global REITs and US Bonds.

While equities and REITs struggled for growth during downturns, infrastructure assets benefitted from stable, regulated revenue streams and inflation-linked pricing mechanisms.

The ability of infrastructure to provide essential services—such as energy, transportation, and communication—allowed it to generate reliable cash flows, even in challenging economic environments.

This historical evidence reinforces Global listed Infrastructure's role as a strong inflation hedge and a defensive asset class, making it a valuable addition to diversified investment portfolios, particularly during periods of economic uncertainty.

Conclusions

In summary, listed infrastructure remains well-positioned for steady growth in 2025 and beyond, supported by a combination of macroeconomic trends, policy support, and the ongoing need for modernization across key sectors.

In particular, transportation infrastructure should benefit from increased government investments in road, rail, and airport upgrades aimed at boosting domestic economic activity.

Energy infrastructure, including traditional energy (pipelines and utilities) and renewable energy projects such as wind and solar, should see continued growth

driven by policies focused on energy independence and decarbonization efforts. Additionally, data infrastructure, especially in fiber-optic networks, data centres, and telecommunications towers, is poised for growth amid the booming demand for high-speed connectivity and cloud computing, further supported by the rise of AI technologies.

As fiscal stimulus and deregulation continue to be a focus in major economies, infrastructure companies stand to benefit from lower regulatory burdens and increased government spending on large-scale infrastructure projects.

In particular, the U.S. government's emphasis on expanding data infrastructure and modernizing power grids will fuel investments in telecom towers, data centres, and renewable energy projects, continuing digital asset ecosystems as a strong investment theme for the coming years.

The global shift toward renewable energy will further drive investments in clean energy infrastructure, especially as the transition accelerates with AI, electric vehicles, and smart grid technology.

Meanwhile, increased power demand driven by artificial intelligence and cloud computing will further support expansion in power infrastructure like transmission lines and energy-efficient data centres.

While the landscape is favourable, interest rate volatility and geopolitical uncertainties remain potential risks that could affect the cost of capital for infrastructure projects and challenge supply chains.

However, infrastructure investments' inherent stability, long-term cash flows, and inflation-linked returns continue to make the sector an attractive option for diversified, long-term portfolios.

