MARKET MATTERS: 2ND QUARTER 2024

By Rebecca Saukaitis, Director, Client Portfolio Management

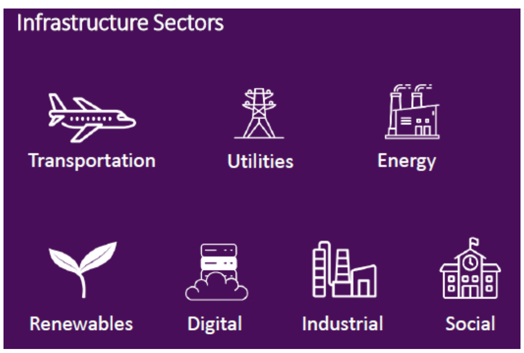
"A man doesn't need brilliance or genius. All he needs is energy." – Albert M. Greenfield

TAKEAWAYS

- **Infrastructure as an asset class is a multi-benefit portfolio diversifier.**
- **Core infrastructure is an all-weather, utilitarian component in portfolio construction.**
- **Secular positioning and fundamental trends are advantageous for investors.**
- **More opportunities are now available for institutional investors and private clients to allocate to high quality infrastructure offerings.**

INFRASTRUCTURE: REAL RETURN FROM REAL ASSETS

Building a truly diversified investment portfolio is no small feat. As illustrated in 2022, correlations can spike in stressful conditions, leading to a trough in returns that is unbuffered by typically more stable assets like bonds. A cornerstone in the construction of a diversified portfolio is real assets, and **infrastructure investment provides an opportunity to include a mix of productive real assets in a portfolio, building in downside protection, inflation protection, and tax-efficient income.** Infrastructure investments are investments in hard assets that provide essential services, facilitate basic needs, undergird economic activity, and enable the movement or storage of goods, water, energy, and data.



These include:

- Transport: Seaports, airports, toll roads, rail networks, export facilities, container networks and the transport vessels like ships and planes.
- Utilities: Electric, gas, and water networks.
- Midstream Energy: Pipelines, processing and storage of oil/gas.
- Renewables: Solar, wind, and hydro power generation.
- Data/Digital: Telecom towers, data centers, fiber networks.
- Industrial: Manufacturing and production platforms and facilities.
- Social: Schools, Hospitals, Civic buildings, Municipal Utilities.

Infrastructure assets are diverse, but they tend to offer regulated, contractual or otherwise predictable cash flows. Stable and predictable revenues and durable market position are a benefit to investors. There are often very high barriers to entry for infrastructure companies, so the potential for competitive disruption is low. Some essential services operate on a monopolistic basis, which offers a higher level of visibility into future performance. Though many assets share these common elements, **infrastructure types also have the benefit of being less correlated with each other, as well as with traditional asset classes.** Core Infrastructure includes essential and resilient assets

Sources: JP Morgan, Brookfield, IFM, KPMG, KKR, BlackRock, Mercer, Stafford Capital that have long-term, predictable cash flows. They are either under construction or operational (mature) in developed markets, with low volume and price sensitivity. Yield is often the majority of target return. Stable cash flows, long-term useful lives, and established operational history make core assets lower risk and create capital stability. Core infrastructure investments are in physical infrastructure with long term, contractive revenue profile, while Value Add/Private Equity Style investments have cash flows that may be more dependent on volume or price, may be in early development (greenfield projects), in emerging markets, and otherwise with less concrete restructuring requirements and less stable distributions**. Core infrastructure, our primary focus, offers a package of benefits to both institutional and high net worth investors, including inflation hedging, income, downside protection, and broader diversification.**

Revenue Type	Description
Contracted	• Revenue derived from long-term contracts with government (PPP) or commercial counterparties • Limited price/volume risk, if any
Regulated	• Limited volume and price risk, potentially subject to periodic regulatory reviews. • Equity return outcomes are reasonably constrained
Volume-linked	• Prices are contracted or indexed with modest volume risk • Volume risk is often constrained by monopolistic characteristics
Market	• Pricing is determined through competitive market forces • Market Defensive exhibit counter-cyclical characteristics

TAIL WINDS POWERING RETURNS

Structural trends are very supportive of infrastructure investment. Across the nation and around the globe, **we need to expand infrastructure footprints, in addition to replacing existing assets that have deteriorated over time.** The need for infrastructure has been partially deferred as populations have grown, leaving networks like power grids, water systems and roads aging *and* overextended. Demand for these assets from societal needs for energy, water, and goods may shift but will not dissipate.

Power, telecom and roads together make up a 2.1 trillion dollar need across the globe *per year* looking forward, with a total of 3.1 trillion in infrastructure investment needed annually. These needs span the globe, with the US accounting for 13%, and Europe another 16%. **Fulfilling these needs will require extensive private investment capital to supplement public expenditures.**

Political momentum is building, both globally and in the U.S., to support essential infrastructure initiatives, though which initiatives will be most supported may be location and period dependent. The Inflation Reduction Act of 2022 provided significant financial incentives for investment in clean energy and transportation. This type of legislation creates a positive trajectory for infrastructure investment in the public sector, private sector, and the two in partnerships. Energy transition, vehicle electrification, and the evolution of artificial intelligence also all need continued large scale domestic investment.

THE AI REVOLUTION IN REAL ASSETS

Transitions in the digital world to new products and workflows will require infrastructure investment that allows for broad electrification of data centers and other AI tools. Increasing global data usage and demand for connectivity requires new fiber optic networks and cell towers. Across the U.S., data center building and leasing activity have been robust, and the wider adoption of artificial intelligence, cloud-based computing networks and other trends are further driving demand for power and other digital infrastructure.

The assets required for technological development will be needed regardless of which companies win in the race to optimize and monetize AI. While certain stock valuations have skyrocketed based on the promise of these products, not all will be successful in translating their current valuations into future earnings. **Investment in digital infrastructure can produce positive results regardless of who builds the highest and best use for it.** A strong foundation is needed to develop the technology regardless of what gets built on top of it.

Sources: Wes Andrews c/o Canary Media, JP Morgan, Brookfield, IFM, KPMG, KKR, BlackRock, Mercer, Stafford Capital

DEVELOPING A DIVERSIFIED PORTFOLIO: DIY[1]

DIVERSIFICATION: LOW CORRELATIONS

Infrastructure is long-lived, but not long duration. While not perfectly matched, cash flows will move up with an increase in interest rates, acting as an inflation hedge. Income from infrastructure investments adjusts based on interest rates, but without negative re-pricing because return is dependent on real assets *and* because the income is regulated or otherwise contractual. Pockets of sectors can have froth, but **infrastructure in general is a more stable asset class with both less upside and less downside.**

Because infrastructure assets offer a contracted rate of return, they **tend to have low correlations with traditional asset classes**: a <0.2 correlation with bonds and 0.6 correlation (or less) with equities. The transport sector has even shown a negative correlation with both asset classes. Any correlation <1 is diversifying, and the lower the correlation, the more diversification an asset provides. In the case of infrastructure, **the amount of diversification provided per unit of return is compelling**. Core infrastructure returns run in the range of 8-12% annually over a 10 year period. Hedge funds and real estate, which also provide a high level of diversification, show 10 year returns averaging 4.5-9%.

Correlation Matrix:

	Bonds	Equities	Infra
Bonds	1.00	0.01	0.16
Equities	0.01	1.00	0.62
Infra	0.16	0.62	1.00

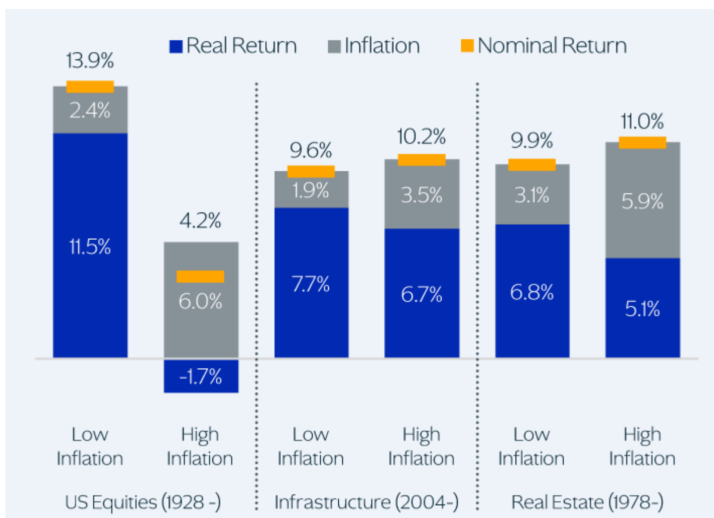
Infrastructure provides a bridge to lower volatility as an investment that has built in downside protection in bad market environments. Some infrastructure investments may perform better or worse depending on economic expansionary or contractionary forces, showing a higher correlation to GDP growth. Revenues from airports, for instance, may fall in a contraction. The revenue from ports or midstream investments may vary depending on economic and trade activity, as well. However, we view downside protection as one of the main roles that infrastructure investment plays in a portfolio. Having a mix of investments that is less dependent on GDP will offer the best quality enhancement. **Diversified funds and those that are more resilient in contractionary environments can function as an all-weather stabilizer to hedge inflation and lower volatility throughout the economic cycle.**

Asset Class Return Dispersions: Stable Return

	Infra	Equities	Bonds
Lowest	-2.8%	-42.2%	-19.9%
Highest	32.8%	34.6%	16.5%
Range	**35.7%**	**76.8%**	**36.4%**

INFLATION PROTECTION: HIGHER FOR LONGER

The de-risking that infrastructure provides doesn't end at muting volatility. Many assets also have direct or indirect inflation hedges built into them, dampening risk from inflationary conditions. Physical assets, unlike bonds, tend to have natural inflation protection as prices rise (they retain value or are even worth more), and contractual or regulatory protection on earnings offers additional protection. Regulated prices may increase directly with inflation, or with the price of commodities/other inflation proxies. In regulated industries like utilities, the allowed return on equity has consistently increased with increases in CPI. Core infrastructure performs well in both low and high inflation environments because of strong pricing power and contractual underpinnings. **Over multiple**



[1] Credit to Nick Mollar and David Kelly at J.P. Morgan Asset Management for this acronym and their related insights on the topic.

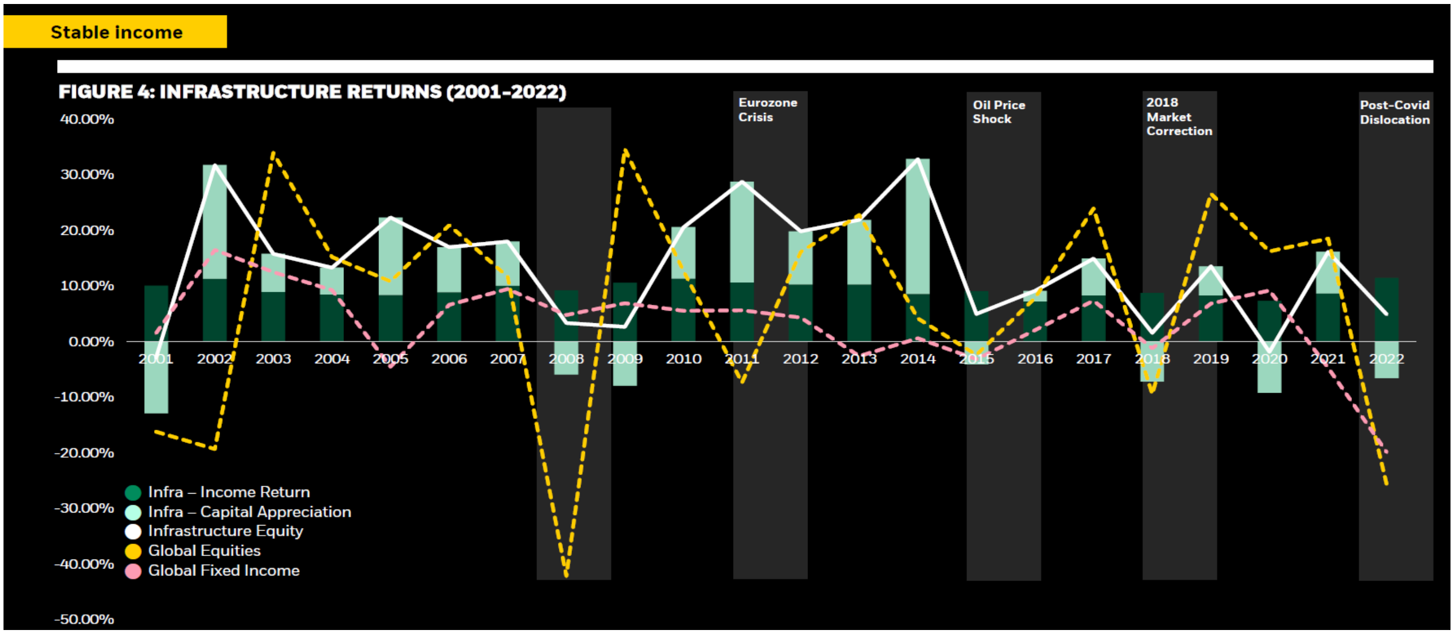
Sources: Wes Andrews c/o Canary Media, JP Morgan, Brookfield, IFM, KPMG, KKR, BlackRock, Mercer, Stafford Capital

sectors, return is strongly linked to inflation: a 1% increase in inflation increases overall investment return by an average of 0.8%. This provides the best real return in high inflation conditions of any asset class.

Where higher inflation means lower prices for bonds (negative return), higher inflation creates an increase in nominal return and a real return that almost keeps pace with upward inflationary pressures for infrastructure. Core infrastructure assets also tend to use low-cost, long-term fixed rate debt as financing, which helps to create a positive leverage affect in inflationary environments.

YIELD: CASH FLOWS AS A VOLATILITY HEDGE

Predictable cash flows in core infrastructure over a long horizon act as a cushion against volatility. In contractionary periods where assets lose value, **income is often able to offset most if not all of the price depreciation**. When equities were down sharply in 2008 and 2022 (see below), infrastructure assets declined in value, but overall had a positive total return.



The yield provided by infrastructure investments is typically greater than real estate and long-term bonds, though less than direct lending. This is highly dependent on the type of investment. The composition of distributions, however, may make infrastructure particularly advantageous for taxable investors. Infrastructure equity investors are entitled to depreciation, depletion and any applicable tax credits to offset taxable income. For leased property, this means that **depreciation can offset a portion of the taxable income** paid by the lessor and passed through to the investor. For certain long-term assets, expenses from construction or maintenance may also function as offsets, saving investors valuable tax dollars.

CRITICAL ENGINEERING: REGULATION, OPERATION, RECEIVABLES

Regulatory risk has two sides for investors. Core infrastructure in regulated industries cannot be outcompeted, which is an upside of the regulatory framework. Infrastructure assets are subject to numerous laws and regulations, which can change over time favorably or unfavorably. **Regulation provides downside protection and upside resistance** because it puts a floor under income but may impose a ceiling on return. Robust diligence, legal expertise and compliance measures can help to minimize downside risk.

Operational risks are the risks that arise from the need to keep real assets running and functioning in an efficient manner. These **risks may come from exogenous factors like natural disasters that threaten the integrity or operation of assets, or from internal failures**. Effective governance can mitigate internal risks, but exogenous risks must either be avoided (by avoiding investment in certain locations), transferred (via insurance) or internalized. Additional environmental risks include a failure on the part of asset operators to manage their environmental footprint appropriately. Both regulatory and operational risks can both be very localized. However, within diversified portfolio local risks tend to be

Sources: Wes Andrews c/o Canary Media, JP Morgan, Brookfield, IFM, KPMG, KKR, BlackRock, Mercer, Stafford Capital

uncorrelated - both political (local regulation) and operational (weather, etc.). Global infrastructure funds that are geographically diversified, mitigating some operational risk, and can have exposure to multiple currencies, leading to currency risk. However, global revenue streams are often dollar denominated regardless of asset location, and most managers have the ability to effectively hedge currency risk.

Investors count on receivables for their return, and the associated counterparty risk can be more or less of a factor depending on the industry. For long-term, contracted assets, the other side of the contract must satisfy its liability. Given that demand is sufficient, this isn't typically a problem, but economic or industry shifts could create counterparty risk. One example in the transport sector is long-term leases requiring payment. **Because core infrastructure is based in the most essential assets, default rates are typically very low.** There is a strong incentive for counterparties to pay because the assets fulfill the basic needs of individuals and businesses.

Broad diversification and active management of assets is important given the above vulnerabilities. **At the fund level just as at the portfolio level, diversification and a long-term perspective are the simplest and often the best loss mitigation tactic.**

ASSET CLASS UTILITY

Private infrastructure has historically been an institutional asset class composed of closed end funds. These may invest in a particular sector or type of infrastructure element (e.g. railways and railcars or ports and shipping vessels) or be diversified across many sectors and elements. Currently, there are more perpetual structures evolving that are open to private clients and other non-institutional investors. These offer exposure to a portfolio of Infrastructure assets with no ongoing capital calls and continuously available subscriptions. Liquid options (listed infrastructure) are also coming to the forefront. These may have higher correlations, offering lower portfolio-level diversification, but they can be a source of yield and inflation protection. Depending on an investor's needs, core infrastructure can be incorporated in a portfolio in many ways to achieve DIY portfolio protection through Diversification, Inflation Protection and Yield.

Sources: Wes Andrews c/o Canary Media, JP Morgan, Brookfield, IFM, KPMG, KKR, BlackRock, Mercer, Stafford Capital

CONTACT US:

Scott D. Renninger	**Katie E. Kearns**	**Thomas H. Grugan**	**Rebecca R. Saukaitis**	**Mary S. Daly**
President & Chief Investment Officer	Vice President & Managing Director	Director, Research & Portfolio Management	Director, Client Portfolio Management	Manager, Client Service & Reporting
scott@iaadvisors.com	katie@iaadvisors.com	thomas@iaadvisors.com	rebecca@iaadvisors.com	mary@iaadvisors.com

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