Principal Asset Management℠

LISTED INFRASTRUCTURE:

A strategy for navigating an inflationary environment

At-a-glance:

- As regulated monopolies or monopoly-like businesses delivering essential services, most listed infrastructure companies have a differentiated ability to preserve margins during periods of rising inflation.
- Listed infrastructure has historically outperformed during periods of above-average inflation, suggesting that the structural advantages these businesses enjoy have the potential to flow through to relative share price performance.
- Listed infrastructure companies also have a healthy track record of delivering income that outpaces inflation.
- Beyond the broadly positive positioning of listed infrastructure companies, the nature and degree of inflation mitigation varies depending on bottom-up factors. Active listed infrastructure managers have an opportunity to position portfolios towards companies with a greater potential hedge against inflation.

Inflation is an important driver of economic growth and financial market performance, shaping purchasing power and investment value. More recently, concern over inflation persistence has led central bankers around the world to hike interest rates even as the economic growth outlook appears increasingly challenged. Amid an environment characterized by broad-based cost pressures and downward revisions to growth expectations, we believe investors should consider increasing exposure to businesses that are able to exercise pricing power and preserve real value. We believe listed infrastructure is particularly well positioned in this regard.

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Infrastructure businesses are built to withstand macro uncertainties

Core infrastructure businesses deliver essential services, the demand for which is relatively insensitive to economic cycles and subject to favorable structural drivers. Given the important role their operations play in the basic functioning of our society, these businesses typically enjoy regulatory or contractual protections that enable them to operate from positions of financial stability regardless of the macroeconomic environment.

In many cases, this includes the explicit ability to pass inflation through to end users of the infrastructure, helping offset cost pressures with minimal lag. In other cases, infrastructure businesses without explicit inflation mitigation are able to deliver similar outcomes by exercising pricing power resulting from strong competitive mitigation and inelastic demand for their services. The degree of inflation mitigation depends on various factors such as regulatory regimes and competition, which differ across sectors and geographies. Although the nature of mitigation may vary, the net impact of inflation is typically neutral or positive for listed infrastructure companies that operate in quality regulatory regimes.

EXHIBIT 1: Inflation is typically neutral or positive for infrastructure businesses

Infrastructure subsector	Expected net impact of inflation	Relative degree of inflation mitigation
Regulated utilities, U.K./Italy	+/=	More mitigation
Toll roads	+/=	
Freight rail	+/=	
Regulated utilities, U.S.	=	
Airports	=	
Energy piplines	=	
Tower operators	=	Less mitigation
Contracted renewable generation	=	
Marine ports	=/-	

Source: Principal Listed Infrastructure team research. The framework is meant to be illustrative for infrastructure assets in high quality regulatory regimes. While the subsectors are representative of broad asset types, specific characteristics may vary by asset and may not adhere to the general framework.

A track record of outperformance during periods of higher inflation

Listed infrastructure has historically offered comparable returns at lower volatility relative to global equities. It is during periods of high inflation and macroeconomic uncertainty, however, that listed infrastructure particularly shines. This suggests that the structural advantages these businesses enjoy do in fact have the potential to flow through to relative share price performance. In this context, listed infrastructure may be an important complement to broader public equities exposure in helping generate attractive risk-adjusted returns through the cycle.

Listed infrastructure has historically outperformed global equities when inflation is above average

EXHIBIT 2: Listed infrastructure vs. global equities in years of higher inflation (2003-2021)

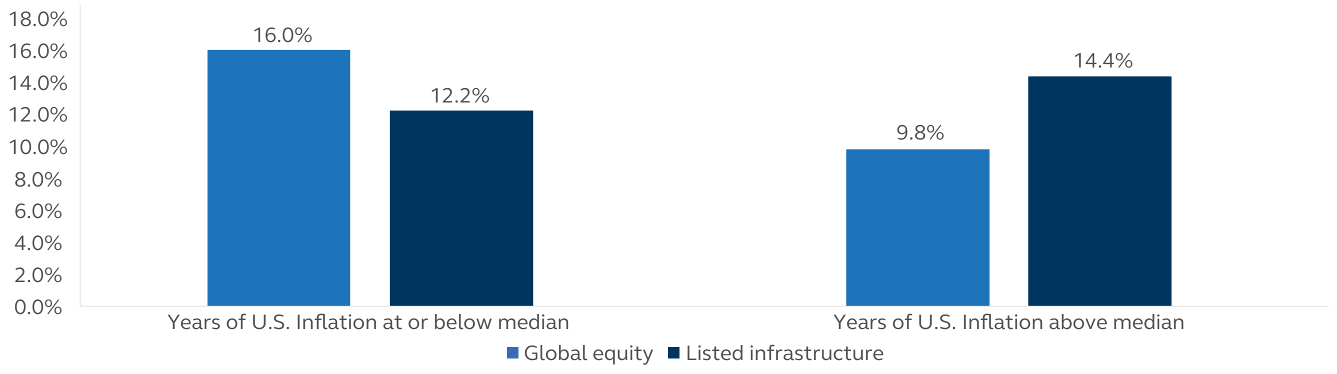
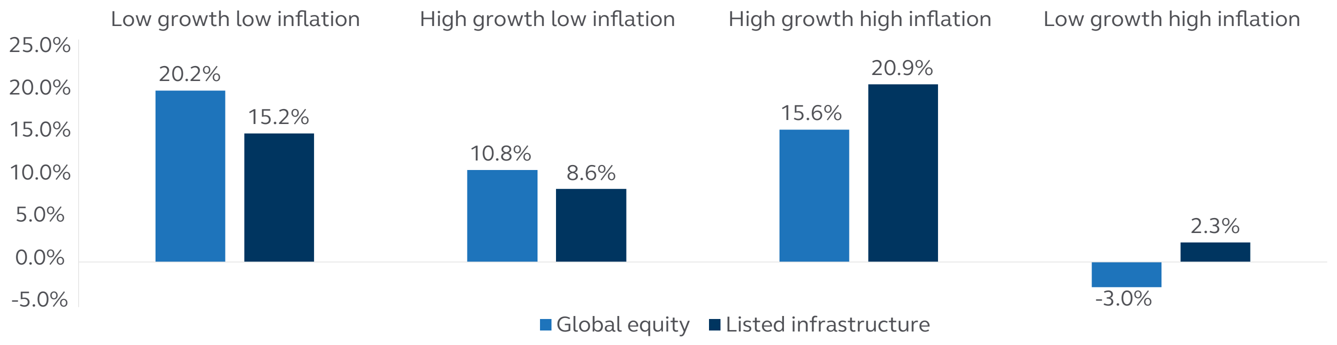


EXHIBIT 3: Listed infrastructure vs. global equities in various macroeconomic environments (2003-2021)



As of 31 December 2021. Source: U.S. Bureau of Labor Statistics, CPI ex-food & energy, FactSet. Global equities is represented by MSCI All Country World Index. Global listed Infrastructure is represented by the MSCI ACWI Utilities Index from 2003 through 2006, a 50/50 blend of MSCI ACWI Utilities Index and the Alerian MLP Index from 2007 through 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. Past performance does not guarantee future results. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index. Please see index descriptions in disclosures.

High growth refers to U.S. real GDP that was at or above median growth over the period 2003-2021, or 2.29%. Low growth refers to U.S. real GDP growth that was below 2.29%. High inflation refers to U.S. CPI that was at or above median U.S. CPI over the period 2003-21, or 2.10%. Low inflation refers to U.S. CPI that was below 2.10%.

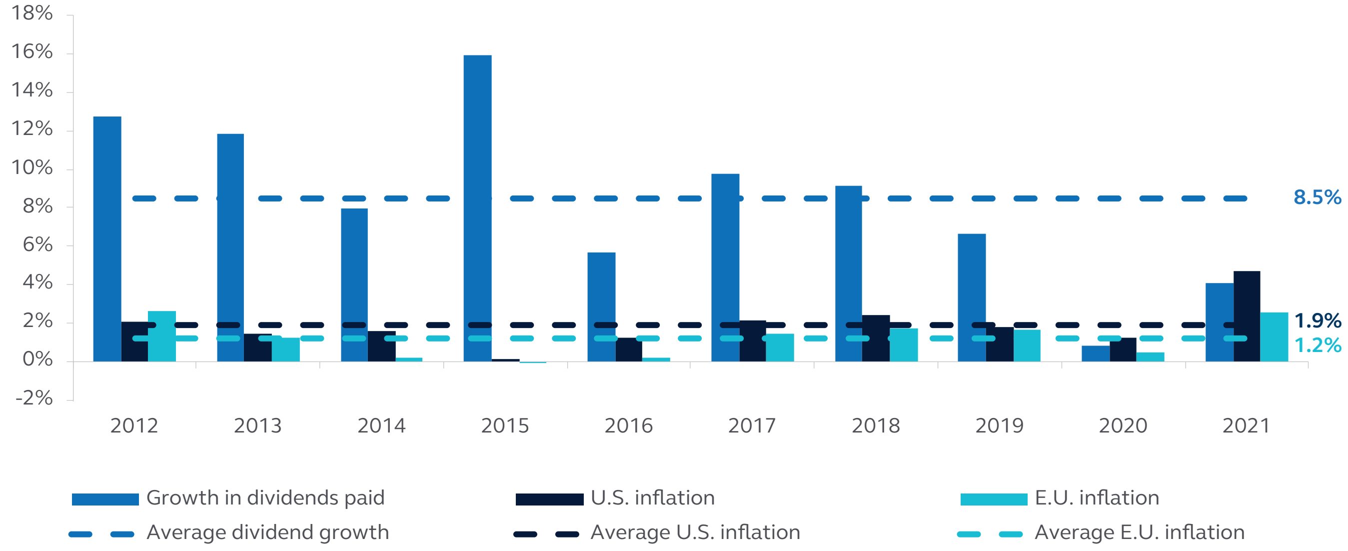
The pursuit of real income growth

In addition to having performed well during periods of higher inflation, listed infrastructure has historically offered healthy dividend increases backed by sustainable earnings and cash flow growth. This income proposition may complement and diversify existing income streams for investors in today's environment, particularly given heightened concern over rising correlations between bonds and equities.

Over the past decade, dividend growth for listed infrastructure has exceeded 7%, even with COVID-related impacts. This average growth in dividends has been substantially higher than inflation during the same period, suggesting that exposure to listed infrastructure is an effective way to generate attractive real income.

EXHIBIT 4: Dividend growth for listed infrastructure significantly outpaces inflation

Dividend growth for listed infrastructure vs. inflation



As of 31 December 2021. Source: FactSet. Global listed Infrastructure is represented by a 50/50 blend of MSCI ACWI Utilities Index and the Alerian MLP Index through March 31, 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. Indices are unmanaged and individuals cannot invest directly in an index. Dividends are not guaranteed and can fluctuate or not be paid at all. Please see index descriptions in disclosures.

Bottom-up analysis continues to matter

Although listed infrastructure companies are broadly well-positioned, the degree of inflation mitigation for a specific listed infrastructure company still requires careful consideration. For instance, the timing of inflation pass-through may impact revenues and costs differently. Revenue escalation may lag cost increases for some businesses while the opposite is true for others. As uncertainties about the likelihood of inflation persistence remain, active listed infrastructure managers continue to have an opportunity to leverage in-depth analysis to drive excess returns. We provide here examples of how inflation mitigation may vary within each listed infrastructure subsector.

Regulated electric, gas, and water utilities

These businesses typically earn allowed returns on invested capital. Capital expenditures, operating expenses and interest costs are generally passed through to customers, although the specific mechanism for this may differ by region. In the most favorable regimes—the UK and Italy— asset bases are adjusted annually by CPI, which leads to revenues increasing with inflation, even as costs typically increase with a lag. In these cases, inflation can be a net positive if companies have mostly fixed rate debt.

Renewable generation

Contracted renewables assets operate under long-term power purchase agreements. These contracts frequently include inflation-linked price escalators, but this may vary by contract. Pricing for new projects has trended up in recent months, allowing developers to pass on higher component costs—but not for all technologies, and not in all regions. Regulated renewable generation assets go into the rate base and are treated as described for regulated utilities.

Energy infrastructure

Energy infrastructure companies generally pass on inflation through the rates they charge to customers. In the U.S., interstate pipelines are regulated by the Federal Energy Regulatory Commission (FERC). Inflation protection features most explicitly in contracts for U.S. interstate liquids pipelines (e.g. crude oil, refined product and natural gas liquid (NGL)), which allows operators to raise tariffs annually by PPI plus an adder. Regulated natural gas pipelines earn allowed returns on invested capital in a similar way to regulated utilities and are able to recover cost inflation through periodic rate cases. Separately, many pipeline contracts contain directly negotiated rates between the pipeline operator and customers; in a high commodity price environment demand for pipeline transportation is likely to increase, enabling higher volumes and stronger cash flows for pipeline operators.

Toll roads

Toll road assets operate under concession contracts negotiated with local governments. Pricing models are often explicitly linked to inflation, though the extent varies by country and asset. In Australia, many of the toll roads are permitted to annually increase tolls by the greater of inflation or 4%. In France, concession agreements provide for annual toll increases at a minimum of 70% of CPI. Similar inflation-linked concession agreements can be found in the U.S., Canada, UK, Italy, Spain, Portugal, Brazil, Chile, etc. In certain instances, toll road operators may agree with local stakeholders to support near-term affordability for customers by charging lower tolls than what is contractually permitted. A toll road operator will typically receive compensation for such action in the form of future toll increases or concession extensions, thus delivering positive social impact while achieving an net present value (NPV) neutral or positive outcome for shareholders. In other cases, toll road operators have discretion to set pricing as to best manage the flow of traffic and cash flows, meaning tariffs often increase at rates greater than inflation.

Airports

Mechanisms for inflation protection typically vary by country. In Europe, airports have a range of regulatory frameworks which provide the ability to recover inflation over time. In Australia, airports operate in a light-handed regulatory environment, whereby aeronautical price increases are negotiated directly with airlines to recover capital investments. In many cases, pricing is reviewed on a multi-year timeframe. Costs may increase faster than revenues in an inflationary environment, but operators have flexibility to renegotiate when appropriate.

Freight rail

Most freight is hauled under bilateral agreements and not subject to explicit price regulation. In practice, as regional monopolies or duopolies, freight rail operators have increased pricing at rates slightly above inflation without impacting volumes. Fuel costs are passed through in their entirety to customers, with a lag.

Marine ports

Port operators generally negotiate prices directly with shippers, and agreements may last for up to several years. Inflation is one of many considerations in such negotiations. Other key variables include the cyclical industry dynamics and financial health of the shippers and competition among ports. Inflation may be overshadowed by other factors, and pricing trajectories may not be directly linked to cost increases in inflationary environments.

Cell towers

Cell towers typically lease for a term of five- to- 15 years with renewal options. Pricing power depends on tower locations and scale. Contracts may have fixed-rate pricing escalators. Zoning requirements can limit supply in key locations, and this generally leads to low churn by existing tenants, new business on existing sites, and improving unit economics over time.

FINAL THOUGHTS

Listed infrastructure features business models that broadly work to hedge investors against inflation. The asset class has demonstrated its ability to generate attractive risk-adjusted returns in uncertain macroeconomic environments, historically outperforming global equities during periods of above-average inflation. Investment returns are further supported by sustainable dividend yield growth that has outpaced inflation by a wide margin. As investors re-evaluate their asset allocation strategies against the current economic backdrop, we believe listed infrastructure has an important role to play in a diversified portfolio.

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Index descriptions: FTSE Global Core Infrastructure 50/50 Index is a market-capitalization-weighted index of worldwide infrastructure and infrastructure-related securities and is net of dividend withholding taxes. Constituent weights are adjusted semi-annually according to three broad industry sectors: 50% utilities, 30% transportation, and a 20% mix of other sectors, including pipelines, satellites, and telecommunication towers. MSCI World Core Infrastructure Index captures large and mid-cap securities across the 23 Developed Markets countries. The Index is designed to represent the performance of listed companies within the developed markets that are engaged in core industrial infrastructure activities. MSCI AC World Infrastructure Index captures the global opportunity set of companies that are owners or operators of infrastructure assets. Constituents are selected from the equity universe of MSCI World, the parent index, which covers mid and large cap securities across the 23 Developed Markets (DM) countries. MSCI All Country World Index is a stock index designed to provide a broad measure of global equity market performance. The MSCI ACWI Utilities Index captures large and mid cap representation across 23 Developed Markets and 24 Emerging Markets countries. All securities in the index are classified in the Utilities sector as per the Global Industry Classification Standard. Alerian MLP Infrastructure Index is a composite of energy infrastructure Master Limited Partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index constituents earn the majority of their cash flow from midstream activities involving energy commodities.

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