

## Listed Infrastructure

### THE CASE FOR GLOBAL LISTED INFRASTRUCTURE

# A missing piece in your portfolio

Investing in essential service providers may result in unique, diversifying investment characteristics

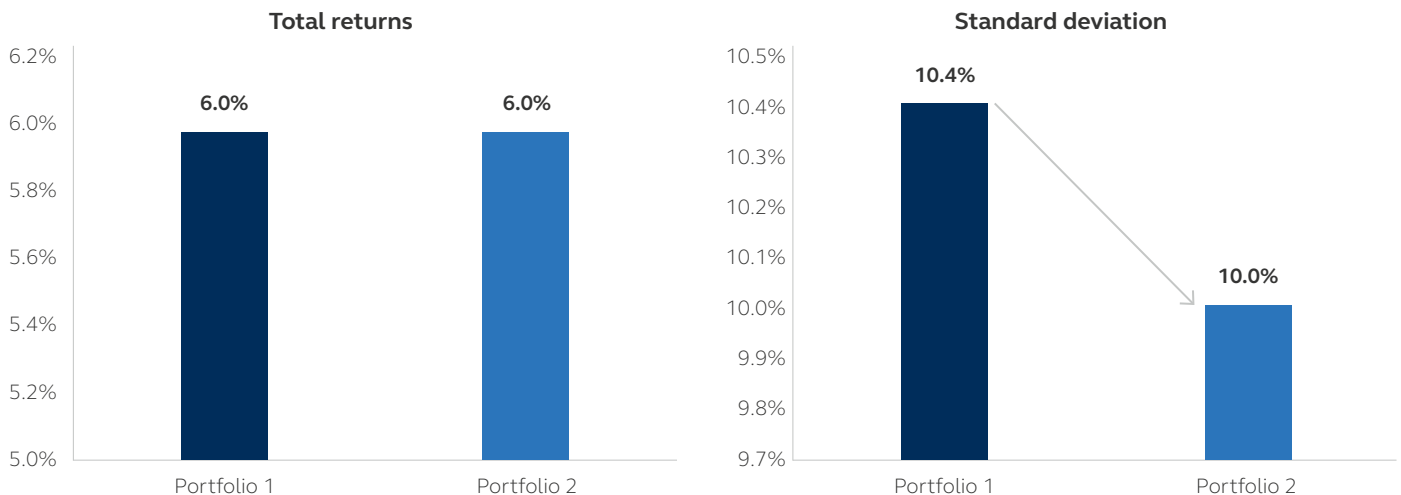
**WHY IT MATTERS:** Owning global listed infrastructure (GLI) has historically improved portfolio outcomes due to its compelling, risk-adjusted returns over the long term.

Investing in essential service providers, which are integral to our daily lives, results in unique investment characteristics that can diversify your portfolio across market cycles. The defensive growth profile of the asset class complements equities, fixed income, and private infrastructure. Integrating GLI into a traditional 60/40 portfolio by substituting 10% of equities holds the potential to provide similar returns while lowering overall portfolio risk.

#### Portfolio comparison: Risk and return profile

28-year, annualized\* (1995–2023)

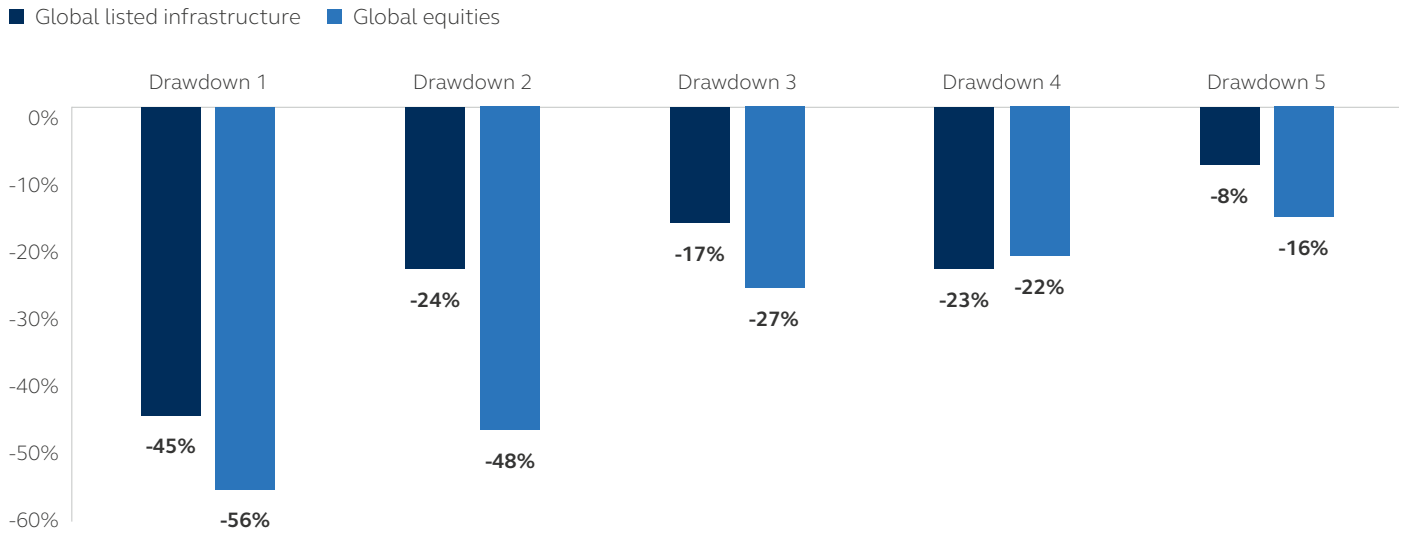
- Portfolio 1 - Global equities 60% / Global bonds 40%
- Portfolio 2 - GLI 10% / Global equities 50% / Global bonds 40%



As of 31 December 2023. Source: FactSet. \*Time period providing earliest available data across asset classes. Listed infrastructure is represented by a 50/30/20 blend of MSCI ACWI Utilities Index, MSCI ACWI Transportation, and the Alerian MLP Index through March 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. The FTSE index launched in March 2015. Global equities represented by MSCI All Country World Index. Global bonds represented by Bloomberg Global Aggregate Index. Past performance is not indicative of future performance and should not be relied upon to base an investment decision. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index.

In market environments in which defensive positioning is warranted, portfolios that incorporate GLI have the potential to deliver outcomes that are differentiated to an even greater extent. Consider that listed infrastructure has meaningfully outperformed during the majority of global equities’ top 5 max drawdown periods over the past few decades, demonstrating its downside risk mitigation potential as a defensive equity sector. This trend was also seen in the most recent drawdown period in 2022. A drawdown is the loss in value from a peak to a trough of an investment.

### Listed infrastructure drawdowns have typically been less than equities



Date range
Drawdown 1 October 2007–February 2009
Drawdown 2 March 2000–September 2002
Drawdown 3 December 2021–September 2022
Drawdown 4 November 2019–March 2020
Drawdown 5 February 2018–December 2018

As of 31 December 2023. Source: FactSet. Top 5 drawdown periods going back to the earliest available data across asset classes (1995). Listed infrastructure is represented by a 50/30/20 blend of MSCI ACWI Utilities Index, MSCI ACWI Transportation, and the Alerian MLP Index through March 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. The FTSE index launched in March 2015. Global equities represented by MSCI All Country World Index. Past performance is not indicative of future performance and should not be relied upon to base an investment decision. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index.

### Key reasons to include GLI in your portfolio:

- ✓ **Defensive growth that diversifies**—The contracted and regulated nature of GLI businesses has historically provided durable, growing cash flows with potential downside risk mitigation.
- ✓ **Accelerating structural growth tailwinds**—GLI benefits from many of the secular growth opportunities that will define the coming decades.
- ✓ **Inflation mitigation**—The characteristics of GLI businesses often lead to mitigation against inflation.
- ✓ **Complementary characteristics to private infrastructure**—Liquid exposure to the asset class with regional and sector exposures that can often complete an overall infrastructure allocation.

**FOUNDATIONAL KNOWLEDGE:**

## What is global listed infrastructure (GLI)?

We invest in publicly traded companies engaged in the operation, maintenance, and development of infrastructure assets around the world. These businesses are “mission critical” to the economic functioning of many parts of the global economy, as we depend on these services every single day. Consider how infrastructure is evident in your daily life from when you turn on the tap for clean drinking water, switch on the lights powered by an electrical grid, and drive on well-maintained roads to get to your destination.

**The main types of infrastructure include:**



**Utilities**

- Electric
- Gas
- Water



**Transportation**

- Airports
- Toll roads
- Rail
- Marine ports



**Energy infrastructure**

- Oil and gas transportation and storage
- Renewables



**Communications**

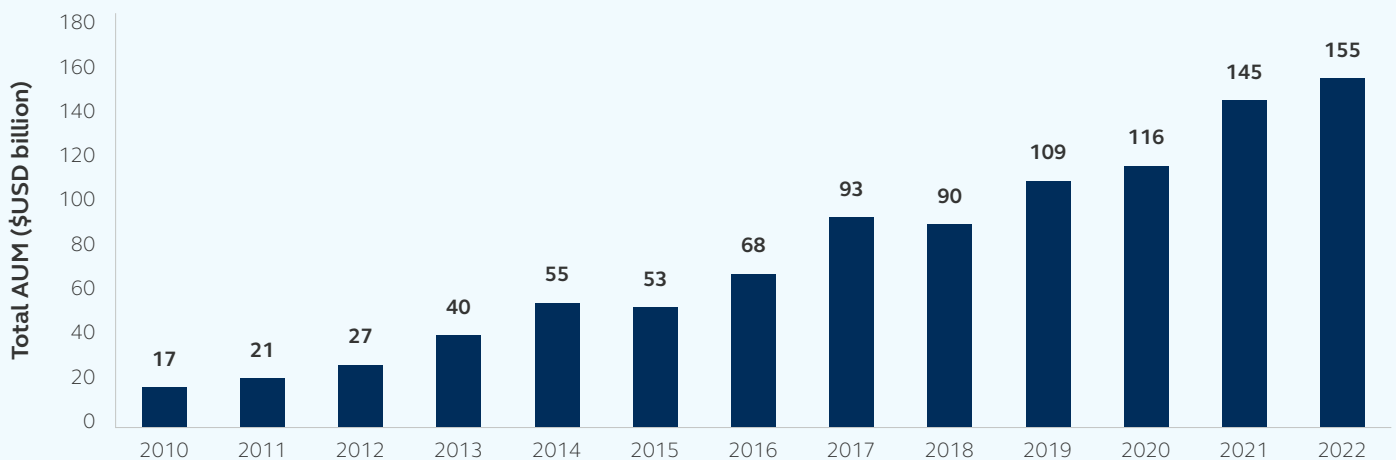
- Cellular towers
- Satellites

While economic infrastructure sectors have different business models, they share the following characteristics:

- Real asset ownership of long-lived assets – long concessions or perpetually owned assets
- Visible and stable cash flows – businesses that are typically regulated or under long-term contracts, giving visibility to future cash flows
- Inelastic demand – delivering crucial services to our society that are generally considered ‘needs’, not ‘wants’
- High barriers to entry – factors such as capital intensity and regulatory environments limits competition, resulting in monopoly or monopoly-like characteristics

These attractive characteristics, along with historic levels of government programs investing in public infrastructure, have resulted in growing investor interest into the GLI asset class. To meet this interest, the space has seen a significant increase in active managers offering specialized, GLI strategies in the last decade.

**Global listed infrastructure assets have grown significantly in recent years**



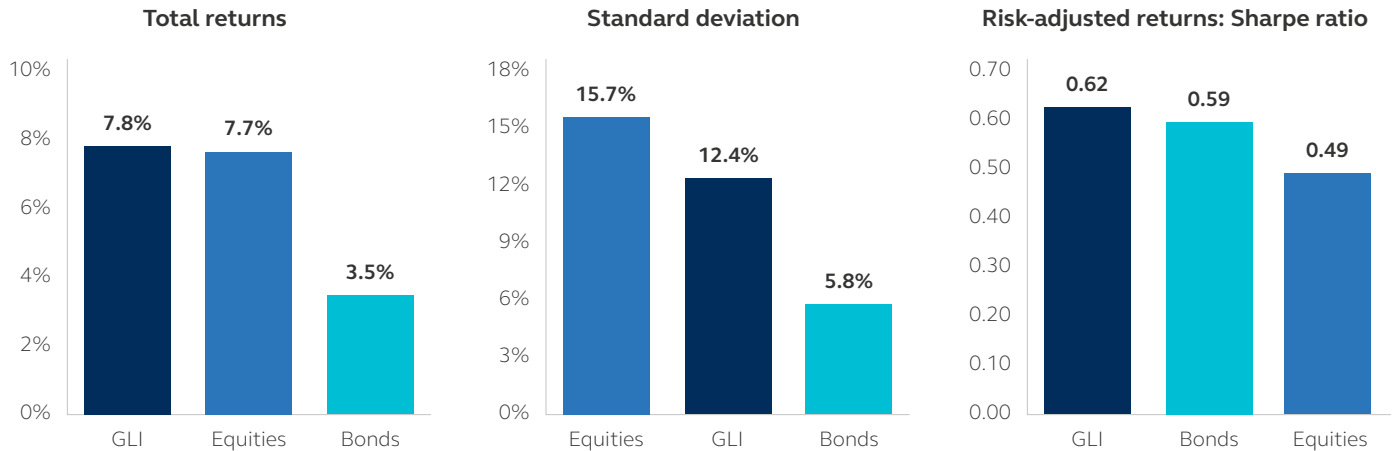
As of 31 March 2023. Source: Global Listed Infrastructure Organization.

## Defensive growth that diversifies

Listed infrastructure companies are essential service providers that offer highly visible, regulated or contracted cash flows and are well-positioned to deliver on the promise of defensive growth. An investment in listed infrastructure has the potential to deliver similar returns at lower volatility relative to global equities, while providing the capital appreciation and income growth potential that fixed income lacks.

### Risk and return profile of global listed infrastructure, equities, and bonds

28-year, annualized\* (1995-2023)

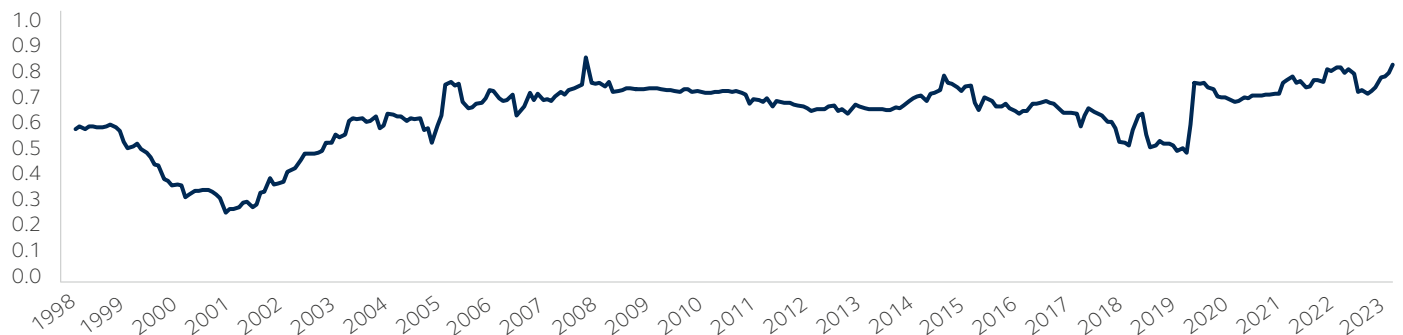


As of 31 December 2023. Source: FactSet. \*Time period providing earliest available data across asset classes. Listed infrastructure is represented by a 50/30/20 blend of MSCI ACWI Utilities Index, MSCI ACWI Transportation, and the Alerian MLP Index through March 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. The FTSE index launched in March 2015. Global equities represented by MSCI All Country World Index. Global fixed income represented by the Bloomberg Global Aggregate Index. Past performance is not indicative of future performance and should not be relied upon to base an investment decision. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index.

Correlations and beta are often used as measurements that indicate diversification potential. Correlation measures the degree of the relationship between two assets and beta measures an asset's relative volatility. While correlation between GLI and global equities has been reasonably high, we believe the value of GLI's historically lower beta for portfolio diversification may be under appreciated. With a historical beta relative to equities less than 1, GLI is less volatile compared to the general equities market and can therefore be expected to hold up better in a down market.

### Beta of listed infrastructure to global equities

Rolling 3-year average last 28-years\* (1995-2023)



As of 31 December 2023. Source: FactSet. \*Time period providing earliest available data across asset classes. Listed infrastructure is represented by a 50/30/20 blend of MSCI ACWI Utilities Index, MSCI ACWI Transportation, and the Alerian MLP Index through March 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. The FTSE index launched in March 2015. Global equities represented by MSCI All Country World Index. Past performance is not indicative of future performance and should not be relied upon to base an investment decision. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index.

How do we explain GLI’s defensive investment characteristics? The highly regulated or contracted revenue streams that GLI businesses enjoy offer cash flow visibility that translates into lower volatility of earnings and returns. These recurring cash flows are coming from the delivery of infrastructure services necessary for society (think electricity and water), for which the demand grows as the population grows and as economic activity advances. Thus, GLI is often less sensitive to cyclical factors. In addition, infrastructure company earnings can grow through the development and acquisition of new assets.

As a signal of their stable growth profile, listed infrastructure businesses have historically paid out a higher percentage of earnings as dividends. Thus, listed infrastructure investors have historically enjoyed a more attractive yield relative to equities.<sup>1</sup> While today’s high yields offered by fixed income instruments are very attractive, it is important to consider the growing income that listed infrastructure can offer over an investment horizon. Over the last decade, GLI dividends have experienced over 100% in cumulative growth.<sup>2</sup> The appeal of GLI’s durable and rising income profile is enhanced further by the capital appreciation benefit that can come from real asset ownership.

## Inflation mitigation

Infrastructure businesses operate under contracted or regulated revenue schemes with explicit links to inflation. The cash flows of listed infrastructure companies have the potential to remain resilient during periods of higher inflation, providing diversification relative to global equity sectors that may find profit margins more challenged.

While inflation is now past its recent peak, we maintain the view that inflation is likely to remain higher for the decade to come than it was in the 2010s. Our thesis of structurally higher inflation is founded on demographic shifts, structural underinvestment in energy, and near-shoring trends, whereby business’ pursuit of the lowest cost labor and manufacturing is no longer the singular goal it was 15-20 years ago. This bodes well for future relative performance of listed infrastructure, as the asset class has historically outperformed global equities in years of higher inflation.

As of 31 December 2023. Source: FactSet. \*Time period providing earliest available data across asset classes. Inflation represented by the YoY change in U.S. core CPI. Listed infrastructure is represented by a 50/30/20 blend of MSCI ACWI Utilities Index, MSCI ACWI Transportation, and the Alerian MLP Index through March 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. Global Equity is represented by MSCI All Country World Index. 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.

<sup>1</sup> As of 31 December 2023. Source: FactSet. 15-year average dividend yield: Global listed infrastructure (FTSE Global Core Infrastructure 50/50, 3.6%) vs Global Equities (MSCI ACWI, 2.3%).

<sup>2</sup> As of 31 March 2024. Source: Factset. FTSE data 2016 and later; 50/50 blended index of MSCI ACWI Utilities and Alerian MLP prior to 2016.

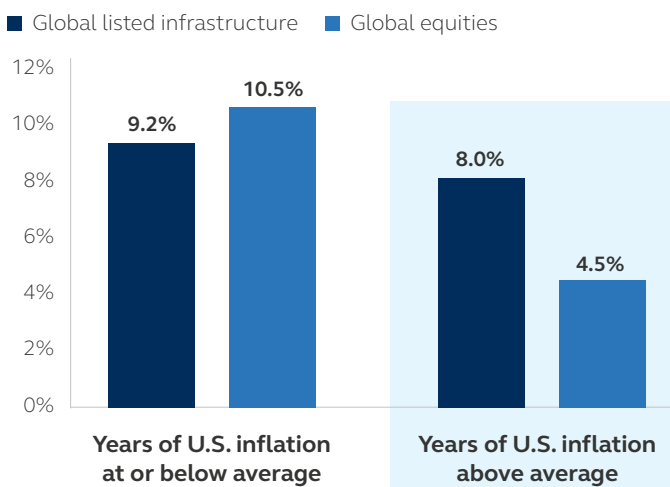
<sup>3</sup> As of 31 December 2023. Source: Evestment.

## Active management matters in the listed infrastructure space

In the listed infrastructure asset management space, benchmarking approaches can vary significantly with a wide variation of regional and sector allocations. Thus, an investor should carefully consider both the investment philosophy and process of a manager, as well as the index that their strategy is benchmarked against. Regardless of benchmark selection, active management has historically been an effective approach in the listed infrastructure asset class. Over the past decade, listed infrastructure managers have generated excess returns over the FTSE Global Core Infrastructure 50/50 Index across almost all relevant time periods, even net of a typical fee for an individual managed account (IMA).<sup>3</sup> In contrast, global equity managers have underperformed their indices net of a typical fee across nearly all relevant time periods over the past decade. This dynamic illustrates the relative value proposition of active management in the listed infrastructure space. We believe sector specialists have the resources, experience and focus required to identify and capture opportunities for excess returns.

## Listed infrastructure has outperformed global equities in above average inflationary environments

Last 28-years\* (1995-2023)



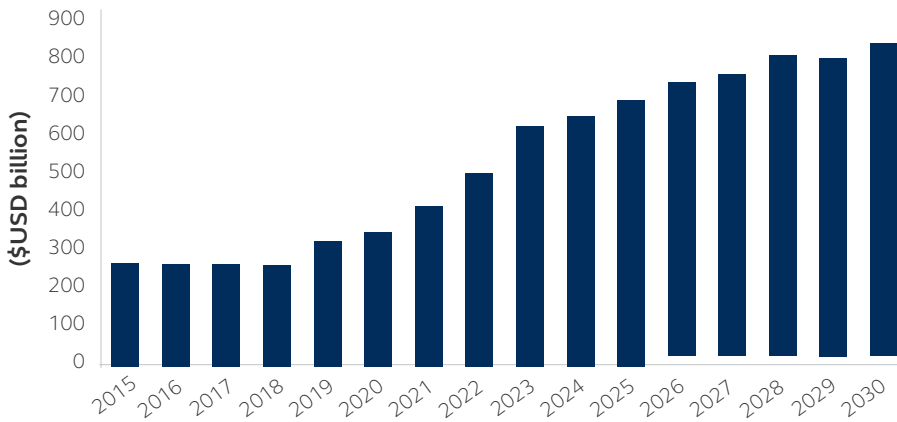
## Accelerating structural growth tailwinds

We have high conviction that fundamental growth drivers for listed infrastructure companies will remain tailwinds over the coming decades. Persistent secular themes, such as the energy transition, demographic changes, and digitalization, are driving opportunity and demand for infrastructure investment globally.

### ENERGY TRANSITION:

With more than 85 countries setting or declaring a net zero target, the energy transition is creating business opportunities for infrastructure, as utility and energy companies accelerate investment into renewables, electricity networks, hydrogen, and biofuels. Electrification is at the core of the global energy transition, with electricity likely to see the fastest demand growth of any major energy source in the coming decades with government incentives at the forefront of that growth. Listed infrastructure companies benefit from electrification, as a large proportion of the asset class comprises generators and distributors of clean energy. Their regulated and contracted business models tend to mitigate the typical risks related to technology deployment. We expect the magnitude and financial benefits of electrification to increase rapidly. [Click here to learn about the electrification opportunity.](#)

### Annual investment in the clean energy transition is accelerating



As of April 2023. Source: S&P Global Commodity Insights.

### DEMOGRAPHICS:

Demographic trends are driving new demand for all types of infrastructure. As the world's population continues to grow, so does the need for new and upgraded infrastructure services, such as the need for more effective transportation systems in denser communities. Rising income levels has created new demand for everything from energy to transportation. Migration trends and shifts in global economic powers may also drive the need for infrastructure assets in different geographies, particularly emerging markets. For example, the average U.S. citizen takes more than 2.5 flights per year, whereas most emerging markets residents take 0.5 or fewer flights per year, highlighting the opportunity for growth from emerging markets.<sup>4</sup> [Click here to learn more about structural growth opportunities in Asia.](#)

<sup>4</sup> As of November 2020. Source: CIA World Factbook.

## Achieve sustainability objectives with GLI

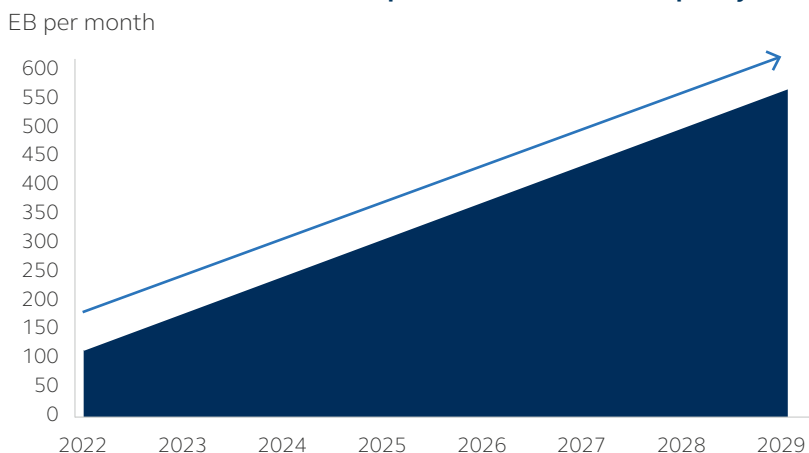
GLI is an asset class inherently attuned to key sustainability goals, thriving in a world where sustainability considerations rightly influence valuations. As providers of services essential to societies, infrastructure companies exist to delivery important social objectives, such as access, affordability, safety, and reliability. GLI can provide an effective way to achieve both sustainability and financial objectives for investors.

Historically, GLI has demonstrated compelling risk-adjusted returns compared to other strategies marketed as sustainable, like those more narrowly focused on renewables or clean energy technology. This favorable performance can be attributed to the fact that GLI companies operate on compelling business models, while many newer clean energy firms remain unprofitable and carry higher exposure to technology risk. At the same time, listed infrastructure offers substantial exposure to many of the same sustainability objectives as alternative energy strategies. Furthermore, listed infrastructure can provide portfolio diversification. [Click here to read more on the potential for sustainable impact.](#)

## DIGITALIZATION:

The increasing digitalization of our world represents a favorable driver for digital infrastructure companies. The unprecedented increase in global data and technology usage is driving the need for additional infrastructure, such as cellular towers and data centers, to meet elevated needs. The modernization of the electric grid can increase energy efficiency by reducing energy losses during transmission and distribution. Intelligent traffic systems are also required to improve safety conditions (e.g. road incident management) and to add efficiency (e.g. automatic and electronic toll collection).

## Global mobile data traffic is expected to more than triple by 2029



As of November 2023. Source: Ericsson Mobility Report. An exabyte (EB) is a large unit of computer data storage, two to the sixtieth power bytes.

## Complementary characteristics to private infrastructure

Infrastructure has increasingly been featured as a distinct allocation within institutional investment portfolios, though to date, many investors have achieved infrastructure exposure exclusively through the private markets. In our view, the liquidity, diversification, and valuation transparency of listed infrastructure make it an important complement to unlisted infrastructure exposure in today's market environment.

A listed infrastructure allocation can prove advantageous when an investor is looking to remain nimble amidst heightened volatility, whereas there are typically restrictions on redemptions in private vehicles. The liquidity offered by GLI also allows investors an opportunity to be more tactical with their positions. For example, a pension plan might use GLI to get exposure to the asset class while awaiting the deployment of their private capital allocations.

Listed infrastructure portfolios typically offer greater diversification than unlisted, providing complementary sector and/or geographic exposures. A single listed infrastructure company may manage dozens of assets and a portfolio may contain exposure to 30-60 companies across a wide range of regions, sectors, regulatory regimes, and stages of development. The regional and sector make up of the listed infrastructure universe is differentiated when compared with unlisted and provides an opportunity to complete an overall infrastructure allocation. For example, while the regulated utilities is estimated to comprise less than one quarter of the unlisted universe, regulated utilities make up at least 50 percent of the listed infrastructure universe. As well, many investor portfolios reflect a domestic bias in private infrastructure allocations, and listed infrastructure can be used to balance that out. [Read more about how listed infrastructure can be a timely complement to private real estate.](#)

**THE CONCLUSION:** We believe that listed infrastructure is an under-utilized asset class that can be a diversifier in an investor's portfolio. Typical global equity portfolios remain under-allocated to the asset class, with listed infrastructure stocks representing just 4% of the MSCI All Country World Index. A dedicated listed infrastructure allocation adds diversification potential with defensive growth characteristics providing potential downside risk mitigation and a hedge against inflation. We believe the future of the asset class remains bright, with fundamental growth drivers such as the energy transition, demographic changes, and digitalization driving demand for decades to come.

## Risk considerations

Investing involves risk, including possible loss of Principal. Past Performance does not guarantee future return. Infrastructure companies may be subject to a variety of factors that may adversely affect their business, including high interest costs, high leverage, regulation costs, economic slowdown, surplus capacity, increased competition, lack of fuel availability, and energy conservation policies. Infrastructure issuers may be subject to regulation by various governmental authorities and may also be affected by governmental regulation of rates charged to customers, operational or other mishaps, tariffs, and changes in tax laws, regulatory policies, and accounting standards. Foreign securities involve special risks, including currency fluctuation and lower liquidity. Some global securities may represent small and medium-sized companies, which may be more susceptible to price volatility than larger companies. Equity markets are subject to many factors, including economic conditions, government regulations, market sentiment, local and international political events, and environmental and technological issues that may impact return and volatility. Asset allocation and diversification do not ensure a profit or protect against a loss.

## Important information

This material covers general information only and does not take account of any investor's investment objectives or financial situation and should not be construed as specific investment advice, a recommendation, or be relied on in any way as a guarantee, promise, forecast or prediction of future events regarding an investment or the markets in general. The opinions and predictions expressed are subject to change without prior notice. The information presented has been derived from sources believed to be accurate; however, we do not independently verify or guarantee its accuracy or validity. Any reference to a specific investment or security does not constitute a recommendation to buy, sell, or hold such investment or security, nor an indication that the investment manager or its affiliates has recommended a specific security for any client account.

Subject to any contrary provisions of applicable law, the investment manager and its affiliates, and their officers, directors, employees, agents, disclaim any express or implied warranty of reliability or accuracy and any responsibility arising in any way (including by reason of negligence) for errors or omissions in the information or data provided. All figures shown in this document are in U.S. dollars unless otherwise noted.

This material may contain 'forward looking' information that is not purely historical in nature. Such information may include, among other things, projections and forecasts. There is no guarantee that any forecasts made will come to pass. Reliance upon information in this material is at the sole discretion of the reader.

This material is not intended for distribution to or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

This document is issued in:

- The United States by Principal Global Investors, LLC, which is regulated by the U.S. Securities and Exchange Commission.
- Europe by Principal Global Investors (Ireland) Limited, 70 Sir John Rogerson's Quay, Dublin 2, D02 R296, Ireland. Principal Global Investors (Ireland) Limited is regulated by the Central Bank of Ireland. Clients that do not directly contract with Principal Global Investors (Europe) Limited ("PGIE") or Principal Global Investors (Ireland) Limited ("PGII") will not benefit from the protections offered by the rules and regulations of the Financial Conduct Authority or the Central Bank of Ireland, including those enacted under MiFID II. Further, where clients do contract with PGIE or PGII, PGIE or PGII may delegate management authority to affiliates that are not authorised and regulated within Europe and in any such case, the client may not benefit from all protections offered by the rules and regulations of the Financial Conduct Authority, or the Central Bank of Ireland. In Europe, this document is directed exclusively at Professional Clients and Eligible Counterparties and should not be relied upon by Retail Clients (all as defined by the MiFID).
- United Kingdom by Principal Global Investors (Europe) Limited, Level 1, 1 Wood Street, London, EC2V 7 JB, registered in England, No. 03819986, which is authorized and regulated by the Financial Conduct Authority ("FCA").
- This document is marketing material and is issued in Switzerland by Principal Global Investors (Switzerland) GmbH.
- United Arab Emirates by Principal Global Investors LLC, a branch registered in the Dubai International Financial Centre and authorized by the Dubai Financial Services Authority as a representative office and is delivered on an individual basis to the recipient and should not be passed on or otherwise distributed by the recipient to any other person or organisation.
- Singapore by Principal Global Investors (Singapore) Limited (ACRA Reg. No. 199603735H), which is regulated by the Monetary Authority of Singapore and is directed exclusively at institutional investors as defined by the Securities and Futures Act 2001. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.
- Australia by Principal Global Investors (Australia) Limited (ABN 45 102 488 068, AFS Licence No. 225385), which is regulated by the Australian Securities and Investments Commission and is only directed at wholesale clients as defined under Corporations Act 2001.
- Hong Kong SAR (China) by Principal Asset Management Company (Asia) Limited, which is regulated by the Securities and Futures Commission. This document has not been reviewed by the Securities and Futures Commission.
- Other APAC Countries/Jurisdictions, this material is issued for institutional investors only (or professional/sophisticated/qualified investors, as such term may apply in local jurisdictions) and is delivered on an individual basis to the recipient and should not be passed on, used by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

Principal Global Investors, LLC (PGI) is registered with the U.S. Commodity Futures Trading Commission (CFTC) as a commodity trading advisor (CTA), a commodity pool operator (CPO) and is a member of the National Futures Association (NFA). PGI advises qualified eligible persons (QEPs) under CFTC Regulation 4.7.

Principal Funds are distributed by Principal Funds Distributor, Inc.

© 2024 Principal Financial Services, Inc. Principal®, Principal Financial Group®, Principal Asset Management, and Principal and the logomark design are registered trademarks and service marks of Principal Financial Services, Inc., a Principal Financial Group company, in various countries around the world and may be used only with the permission of Principal Financial Services, Inc. Principal Asset Management<sup>SM</sup> is a trade name of Principal Global Investors, LLC. Principal Real Estate is a trade name of Principal Real Estate Investors, LLC, an affiliate of Principal Global Investors.