Infrastructure: an Evolving Asset Class

Infrastructure is an asset class within broader real assets, a space that encompasses tangible assets or resources including real estate, land and natural resources, and commodities. Historically, infrastructure has been defined as the assets needed to operate a society or move people and physical goods, such as toll roads, bridges, airports and utilities.

Over the past decade, this asset class has grown dramatically beyond the standard categories to include more modern infrastructure that reflects broader transformations within our economy, such as the transition to a digital world and energy transition support. As the investable universe of infrastructure expands, the governmental stimulus and private capital flowing into the asset class show societal support for continued investment.

Infrastructure investment opportunities include:

- **Energy**: Energy Storage, Operating Renewables, Midstream
- **Utilities**: Power Networks, Smart Grids, EV Charging / Batteries
- **Social**: Education, Recycling, Health Care
- **Digital**: Towers, Data Centers, Fiber, Cloud Computing
- **Transport**: Parking, Toll Roads, Airports / Aircraft Leasing, High-Speed Rail

Past performance does not guarantee future results.
The Role of Infrastructure in a Portfolio

Infrastructure is typically considered alongside other private asset classes in a portfolio, such as private equity, private credit, real estate and hedge funds. As clients continue to seek diversification in their portfolio and investments with lower correlation to the broader markets, private infrastructure is a differentiated option with inherent downside protection due to the underlying hard assets addressing critical needs to society.

Including infrastructure in a portfolio can offer the following unique benefits and considerations:

**Inflation hedge and income**
- Many infrastructure assets have long-term contracts with inflationary protection built into their pricing structures which provides stable, consistent cash flow.
- Despite market conditions, infrastructure assets commonly provide critical solutions to society, providing a level of demand inelasticity and an ability to keep up with inflation due to built-in price escalators.

**Low correlation to broader markets**
- Given ties to essential services and the long-term, contracted cash flows, private infrastructure offers insulation from economic cycles and factors.
- This has been exhibited via less correlation to the broader market than traditional asset classes, such as public equities and fixed income (see Exhibit A).

**Stable, risk-adjusted returns**
- Private infrastructure provides essential services to society. This asset class is typically supported by regulation and often monopolistic positions in existing markets that support consistent yield and allow the asset class to be more stable throughout economic cycles.
- Alongside stable cash flows, private infrastructure can provide additional upside potential for investors, with scale to build platforms and drive operational initiatives.

Exhibit A: Correlation to Public Equity (Source: GSAM)¹

Past performance does not guarantee future results.
In an environment of rising inflation, slowing growth and omnipresent market uncertainty, defensive and resilient cash-flowing businesses that are uncorrelated to the broader market are an attractive complement to a client’s overall portfolio. Infrastructure companies aim to serve society’s critical needs, making the asset class more defensive, including during periods of volatility. Infrastructure supports many of the current global megatrends such as energy transition and growing digital connectivity, creating an increased need for private capital in the market.

Private infrastructure assets under management (AUM) have surpassed $1 trillion and are expected to increase to more than $3 trillion by 2035, driven by growing demand from investors for defensive, stable asset classes. Private capital investors are conscious of future-proofing their assets or their portfolio companies’ assets through the lens of climate policy and guidance, leading to amplified investments in digital infrastructure, energy transition and renewables, transportation and essential services opportunities. Select themes are described in further detail on Page 5.

Recent policy updates in the United States also support private equity investment in infrastructure. In 2021, Congress passed legislation to deliver $1.2 trillion of government funding to infrastructure assets through the Infrastructure Investment and Jobs Act. Many political and financial analysts believe the bill will pave a long runway of infrastructure growth and innovation, creating a real opportunity for private investors to invest independently or partner with government agencies. Increased funding from the U.S. government makes infrastructure investments — which were once considered uneconomical — more attractive for private investors, providing a net benefit to the country’s infrastructure by creating jobs and driving economic growth. Private equity investments will go to service providers in the infrastructure sector, such as engineering firms, water-service companies, data center leasers and, to a lesser extent, direct private investment in infrastructure assets.

In 2022, Congress passed the Inflation Reduction Act (IRA) which, among other key items, provided an unprecedented financial commitment by the U.S. government to global decarbonization, with around $369 billion in funding for energy security and climate change programs. Policies and regulations, such as the 2021 Jobs Act and the IRA, provide a compelling backdrop for investing in infrastructure, and energy transition and sustainable infrastructure are poised to benefit from this legislation.
Fundamentals of Investing in Infrastructure

Infrastructure serves a critical role in society and is characterized by **defensive and contractual cash flows, resiliency through economic cycles, limited competition and incumbency advantages**.

Today, a broad set of real assets are categorized as infrastructure investments if they generate relatively predictable, long-term cash flows, often with inflation-hedging components and limited cycle risk. As with real estate, there are a variety of ways to invest in infrastructure depending on investor-level liquidity and risk / return objectives.

**Different infrastructure strategies provide varying levels of income, appreciation and stage exposure:**

<table>
<thead>
<tr>
<th>Return Drivers</th>
<th>Core</th>
<th>Core-Plus</th>
<th>Value-Add</th>
<th>Opportunistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Holding Period</td>
<td>7-10+ years</td>
<td>6-9 years</td>
<td>~5-7 years</td>
<td>~3-5 years</td>
</tr>
<tr>
<td>Yield Profile</td>
<td>60%+ of total return</td>
<td>~50% of total return</td>
<td>0-20% of total return</td>
<td>0-10% of total return</td>
</tr>
<tr>
<td>Investment Profile</td>
<td>Brownfield assets with long-term contracts with governments or creditworthy counterparties</td>
<td>Mostly brownfield assets with long-term contracts with greater scope for capital appreciation</td>
<td>Brownfield or greenfield assets with shorter-term contracts or less creditworthy counterparties; reliant on capital expenditure</td>
<td>Brownfield or greenfield assets with long-term contracts in developing markets or with revenue volatility</td>
</tr>
<tr>
<td>Typical Subsectors</td>
<td>• Gas, electric, utilities • Contracted, renewable power • Top-tier airports, seaports or toll roads in major markets</td>
<td>• Thermal power • Renewable power generation with development risk • Oil and gas midstream • Toll roads, airports or seaports with limited population coverage</td>
<td>• Greenfield assets under construction • Early-stage oil and gas midstream • Data centers and fiber-optic networks</td>
<td>• Assets in developing markets • Special or distressed situations • Merchant power generation</td>
</tr>
</tbody>
</table>

Please note the yield profiles displayed are samples and are for illustrative purposes only. No returns are guaranteed.
Select Investable Themes

The infrastructure industry is responding to market dynamics as well as widespread, changing consumer and business practices. Two newer areas of increased investment include:

1. Energy Transition and Sustainable Infrastructure
   • **Defined as:** Companies managing assets that support renewable energy production, storage and distribution.
   • **Examples:** Solar or wind farms (and related transportation assets), electric vehicle charging stations and battery storage.

   Investment in sustainable infrastructure funds has heightened in recent years due to:
   i. The focus around climate change and the urgency of scaled intervention
   ii. Required updating of existing U.S. infrastructure, which has low condition ratings, through the lens of future systems and structures (which are typically more sustainability-focused)

   Policies and regulations, such as the Inflation Reduction Act, are currently supportive of renewable power and the energy transition, and sustainable infrastructure is poised to benefit from this moment. However, a shift in sentiment could expose the sector to policy risk. Infrastructure is highly regulated, and any non-compliance exposes companies to financial, reputational and legal risk.

2. Digital Infrastructure
   • **Defined as:** Companies managing assets that facilitate the digital world.
   • **Examples:** Telecommunication towers, data centers, fiber-optic networks and cloud computing.

   Investment in digital infrastructure funds has heightened in recent years due to:
   i. The digitization of commerce and the broader economy
   ii. The rise of artificial intelligence (AI), machine learning (ML) and related technologies across business sectors requiring more data
   iii. Lack of supply to meet the demand in emerging economies and rural areas of developed economies

   Digital infrastructure assets, such as data centers, are ripe for private investments due to the capital intensity required to build and operate them, and the often robust, consistent cash yield provided once they are developed.

Determine if infrastructure is right for your needs and risk preferences.

Investors should consider their existing holdings and the risks associated with investing in infrastructure. If you would like to discuss these trends further, please reach out to your Goldman Sachs team.
Endnotes


Other resources referenced:

Endnotes

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