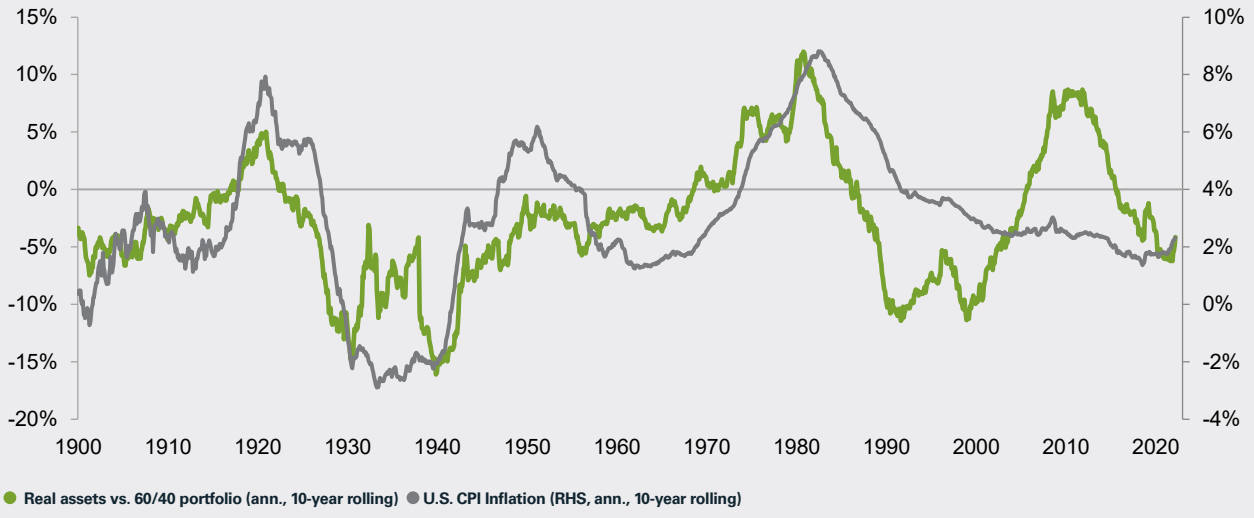
Navigating inflation:
The case for listed infrastructure

- Real assets such as listed infrastructure can offer valuable diversification and an upward skew to returns in periods of elevated inflation. Their benefit to a diversified portfolio appears even greater in periods of stagflation.
- Listed infrastructure also offers a valuation buffer as it continues to trade at a deep discount to private infrastructure, despite offering similar long-term return characteristics. Record levels of private equity 'dry powder', which has been increasingly deployed into public markets, could help close this gap.
- Not all infrastructure assets are created equal – we see the energy transition as the dominant theme driving infrastructure investments over the coming decade, and expect utilities in transition to deliver superior risk-adjusted returns through three key levers: 1) accelerating investments in and to enable renewables; 2) structurally higher power prices; and 3) inflation passthroughs in regulated business models.

Real assets: supporting portfolios through inflation and stagflation

History has shown that during periods of elevated inflation, the return profile of diversified portfolios can be significantly enhanced through the addition of real assets. As the chart below shows, real assets have consistently outperformed balanced 60/40 equity/bond portfolios in periods of elevated inflation during the past century. We believe that the fundamental reason for this outperformance – namely real assets' positive valuation sensitivity to inflation – remains valid.

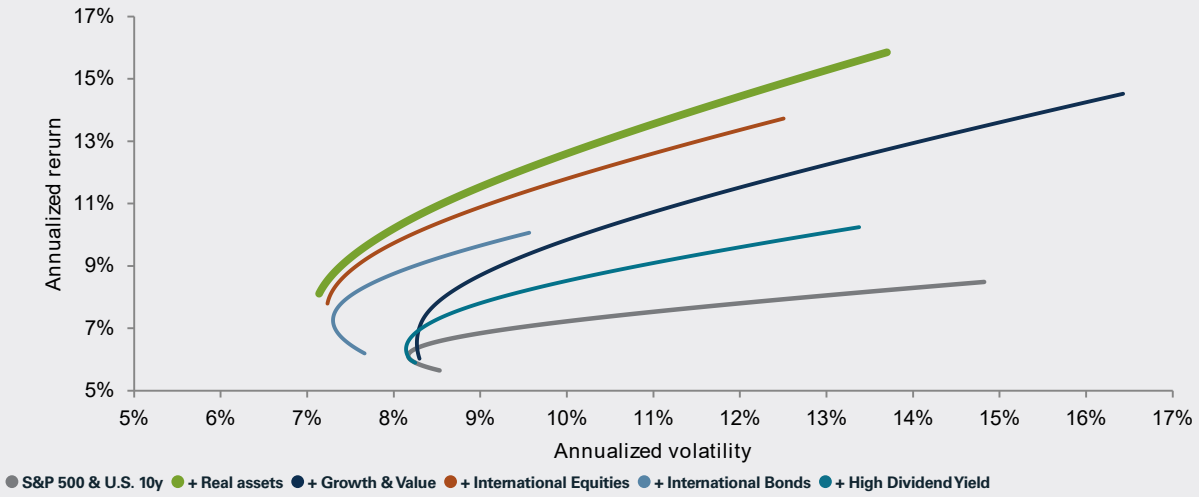
Real assets have outperformed a 60/40 portfolio in periods of high and rising inflation - Total return performance



Source: Goldman Sachs

The positive return skew of real assets relative to other asset classes is even more pronounced during periods of stagflation, when inflation (dependent on supply side disruption rather than excess demand) is accompanied by little or no growth in the economy. As the chart below shows, during the 1970s stagflation real assets provided the largest increase in risk-adjusted returns for a balanced equity and bonds portfolio among viable asset classes.

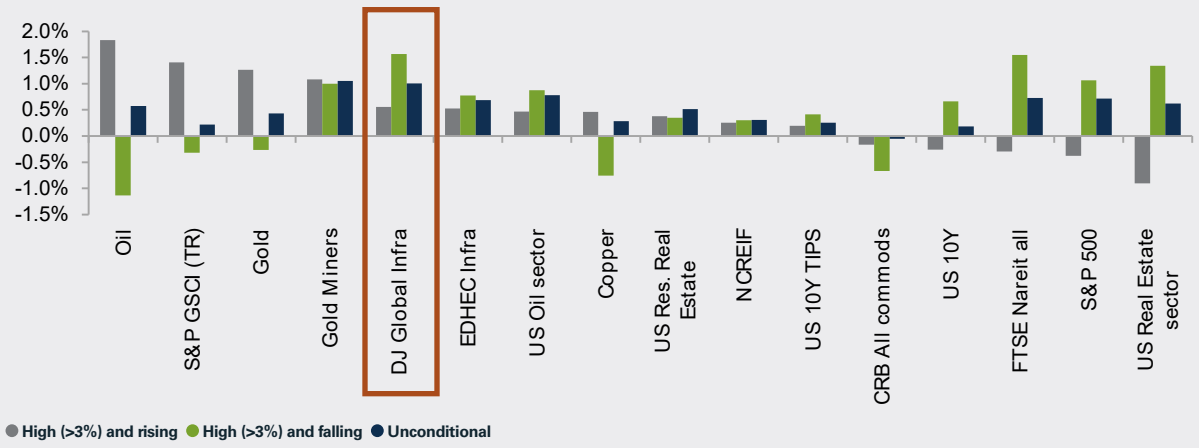
During the 1970s stagflation there were material benefits from broader diversification - Efficient frontier (data for 1970s, monthly returns)



Source: Goldman Sachs

Within the broad definition of real assets, listed infrastructure stands out for its ability to deliver returns over and above those of general equity markets during times of elevated inflation, both when inflation is accelerating and when the inflation rate is falling. This is not true of most other real assets, such as physical commodities like oil and gold, which tend to deliver negative absolute returns when inflation begins to slow from an elevated peak, or inflation-linked bonds, which tend to underperform equities significantly in such a scenario. The only other asset class matching listed infrastructure with this property is real estate, and in particular listed real estate (REITs); in the current context however, where interest rates are beginning to normalise after over a decade at record lows, valuation headwinds may have a more substantial impact on returns than historical data may be able to convey.

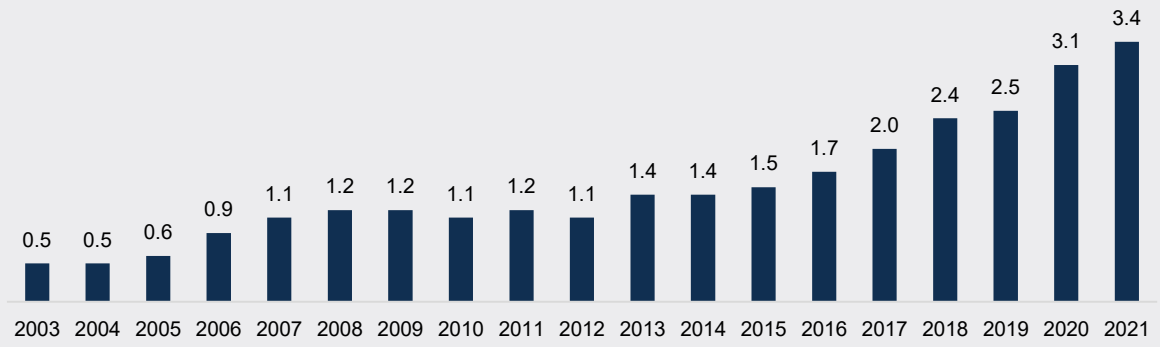
Real assets outperform in periods of high and rising inflation but less with falling inflation - Average monthly, real returns (data since 1950, inflation based on U.S. CPI)



Source: Goldman Sachs

Listed infrastructure therefore appears to be an optimal asset class for capital in search of superior returns during periods of elevated inflation. What is more, listed infrastructure's valuations should continue to be supported by the increasing appetite of private investors for take-private transactions. Private assets under management have been steadily growing over the last decade and, despite increasing deal volume, the ability to deploy capital has been increasingly constrained, with dry powder in the industry rising to unprecedented levels, as the chart below shows. We expect this trend to continue and to support the progressive re-rating of listed infrastructure stocks towards levels closer to transaction multiples in private markets.

Global Private Equity Dry Powder (USD trillion)

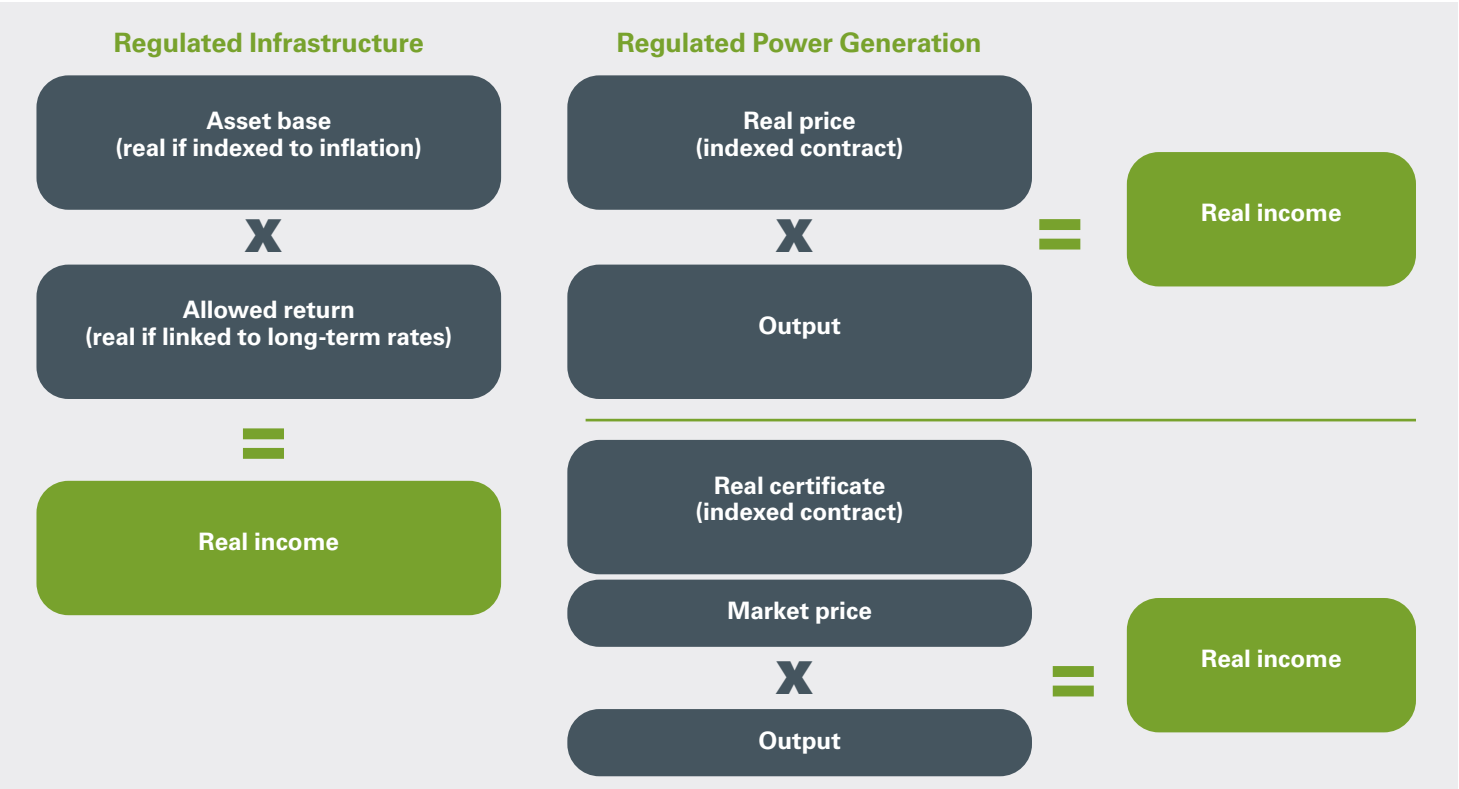


Source: Statista

Listed infrastructure: the sources of inflation protection

There are essentially three key mechanisms through which infrastructure assets of all kinds receive protection against rising inflation. In descending order of certainty and visibility, they are the following: automatic indexing, cost recovery guarantees, and pricing power.

Automatic indexing consists in directly linking the growth in the revenues and/or the regulated asset base of a company to an inflation index. Automatic indexing is typically regarded the "safest" form of inflation protection as it is enshrined in regulatory formulas and contracts. For regulated utilities, this typically takes the form of a real regulated asset base, where every year the value of the company's assets recognised and remunerated by the regulator goes up by inflation (or, occasionally, is linked to inflation proxies like long-term interest rates). This is the case for regulated utilities in Italy and the UK, for example, where regulated asset bases are directly linked to inflation rates, and regulated utilities in Portugal and Illinois, where allowed rates of return on nominal asset bases are directly linked to long-term interest rates. For power generation companies with long-term contracts, this typically takes the form of price indexing, where a fixed real price is (in nominal terms) annually escalated by an agreed rate of inflation. This is the case for Renewables Obligation Certificates (ROCs) in the UK and renewable contracts for difference (CfDs) in the UK, Italy, and several other countries in Europe.



Source: Ecofin

Cost recovery guarantees are contracts or contract riders which allow regulated utilities to periodically pass through cost increases to consumers, typically with a lag. Cost recovery guarantees take many different forms depending on the jurisdictions. In the U.S., most utilities operating regulated thermal power generation assets will have riders in place to pass through higher fuel costs to consumers with varying time lags. Regulated thermal power generation in Europe can have similar arrangements in place, although it is rare and usually confined to capacity markets/mechanisms and systemically vulnerable situations such as islands. Furthermore, utilities operating regulated power and gas infrastructure (networks) typically benefit from cost pass-through mechanisms on their operating expenses, usually with a lag.

Indicative example of a one-time cost increase in year 1 with cost recovery guarantee

Source: Ecofin

Pricing power is the weakest form of inflation indexation because it rests on the assumption that a business will be able to pass on cost increases to its consumers through market power. Yet, due to the oligopolistic and asset-heavy nature of the utilities industry, and the extremely low price elasticity of demand for electricity due to its essential role in people's lives, pricing power tends to offer more-than-proportional upside to company profits when underlying costs are rising equally for all players. This is the case, for instance, in the context of commodity up-cycles. When commodity prices such as coal and gas are rising, this tends to feed through directly to power prices due to the marginal cost pricing systems employed in most parts of Europe and some parts of the U.S. Aware of their pricing power and the low price sensitivity of their consumers, utilities tend to exploit rising cost environments to expand gross margins. Since commodities tend to be a levered exposure to general inflation (i.e. in periods of inflation, commodity prices tend to increase more than average consumer prices such as CPI), pricing power typically delivers greater increases in profitability than other forms of inflation protection.

Commodity price inflation typically over/undershoots consumer prices

Source: Bloomberg

Case studies: protecting our portfolios against inflation

In the following paragraphs, we provide examples of the type of companies we invest in to protect against the risk of elevated inflation in our portfolios.

Terna SpA

Terna is the monopolistic owner and operator of Italy's high-voltage electricity grid. Terna's operating profit essentially consists of an allowed rate of return applied to a real asset base, which every year increases by the rate of inflation as conveyed by Italy's GDP deflator (as well as the net balance of new investments and asset depreciation). Beyond this remuneration, Terna is allowed to charge consumers an allowed level of operating expenses which reflects the company's operating cost base (reviewed on a triannual basis) and is annually adjusted by the balance of inflation and operating efficiencies. As a result, over 95% of Terna's profits are protected against inflation through a combination of automatic indexation and cost recovery guarantees.

Source: Bloomberg

Ameren Corp.

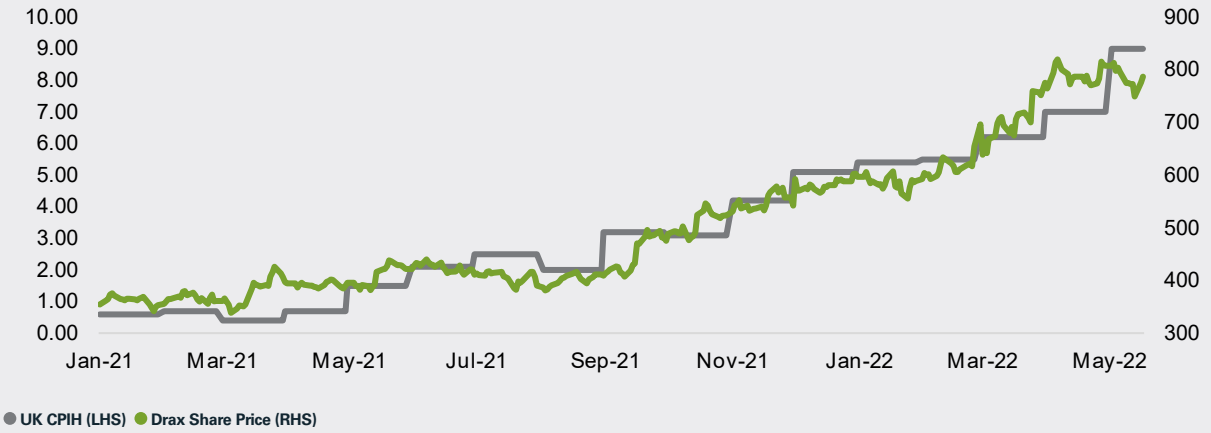
Ameren is a U.S. utility serving mainly customers in Illinois and Missouri. Ameren is relatively unique in its exposure to inflation. On the one hand, like most U.S. utilities, it benefits from cost recovery guarantees on part of its operating costs. For example, while the company is remunerated for the asset value of its power generation, it will also be able to generally pass on (with a lag) higher power generation (fuel) costs, usually through fuel cost riders. In addition to this, Ameren also benefits from formulaic rates, implying that the company's allowed return on equity determining its financial remuneration is directly linked to long-term interest rates. To the extent that long-term interest rates reflect the market's inflation expectations, this regulatory construct will provide protection for the company's remuneration against inflation.

Source: Bloomberg

Drax plc

Drax is one of the UK's largest power generators. A large part of Drax's power generation is regulated through a combination of two renewables subsidies, Renewables Obligation Certificates (ROCs) and contracts for difference (CfDs). Both ROCs and CfDs in the UK are annually indexed to relevant inflation rates. ROCs are a "top up" subsidy which is paid to complement the power price earned by selling electricity into the wholesale market. As such, Drax has direct exposure to wholesale electricity prices on two-thirds of its electricity production and, due to its strategic position as the owner of the UK's largest dispatchable power plant, has significant pricing power to take advantage of higher power prices in the current inflationary environment to significantly increase its operating margins.

Drax Share Price vs UK Inflation



Source: Bloomberg