

# Kempen Global Listed Infrastructure

JUNE 2021

## INFRASTRUCTURE AS INFLATION HEDGE

### EXECUTIVE SUMMARY

The listed infrastructure asset class is exposed to secular growth themes around sustainability, digitalization, and the emerging market middle class. The sector benefits from predictable cash flows and tangible assets. One characteristic of this asset class that had not received much attention in the past is the inflation protection by nature of its contracts. As inflation concerns return we expect the sector to demonstrate its resilience.

In this paper we will demonstrate the following:

- Infrastructure funds offer on average better returns during inflationary periods – for both expected and unexpected inflation. Over the last fifteen years, the infrastructure sector (GLIO index) outperformed the MSCI World by a yearly average of 3.5% during periods with high inflation (>2.5%) and by 3.2% during periods of unexpected inflation<sup>1</sup>.
- We demonstrate that the revenue models of some infrastructure companies are more directly tied to inflation than others. Some are regulated, such as utilities, while others, such as railroads and toll roads, are concession-based. Regulation and concession contracts often include clauses that allow the company to pass any increase in price directly through to customers, thus protecting earnings in case of inflation.
- We show examples of companies within the infrastructure universe whose revenues are protected against cost-push inflation in the event the economy is entering a super-cycle of sustained higher inflation.
- We show that active management is key as not all infrastructure assets offer similar levels of protection, whilst it also varies with the level of inflation.

We recognize the infrastructure asset class's multi-decade secular growth drivers that include decarbonization, an emerging market middle class, and digitization. Together, these drivers offer compelling opportunities for investors to capitalize on inflation protected growth.

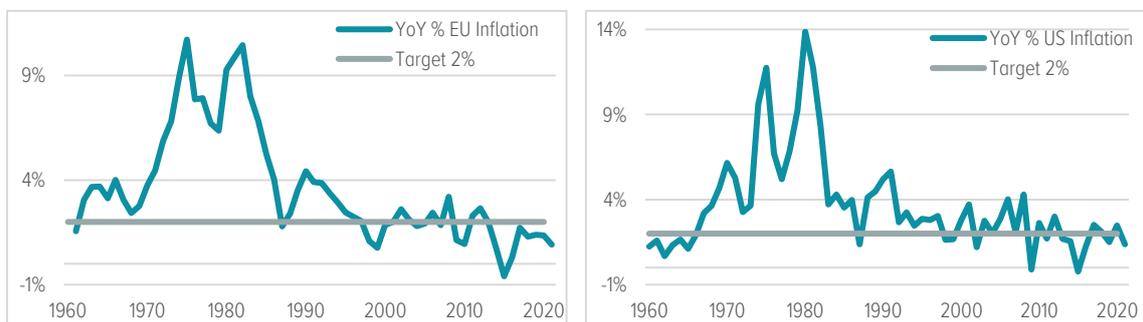
<sup>1</sup> Source: Kempen, GPR GLIO, Factset, June-21



**WOULD INFLATION REMAIN PERSISTENTLY HIGH GOING FORWARD?**

Price stability is one of the goals pursued by Central Banks around the world, aiming to keep inflation within tolerable ranges. The European Central Bank aims for inflation below, but close to, 2%, the Bank of England and the Bank of Japan aim for a target of 2% and recently the Fed replaced its 2% inflation target commitment with a more flexible goal to achieve inflation that averages 2% over time. Over the past two decades, inflation has been comfortably in the range targeted by Central Banks.

**Figure 1: European (LHS) and US (RHS) inflation over the past 60 years**



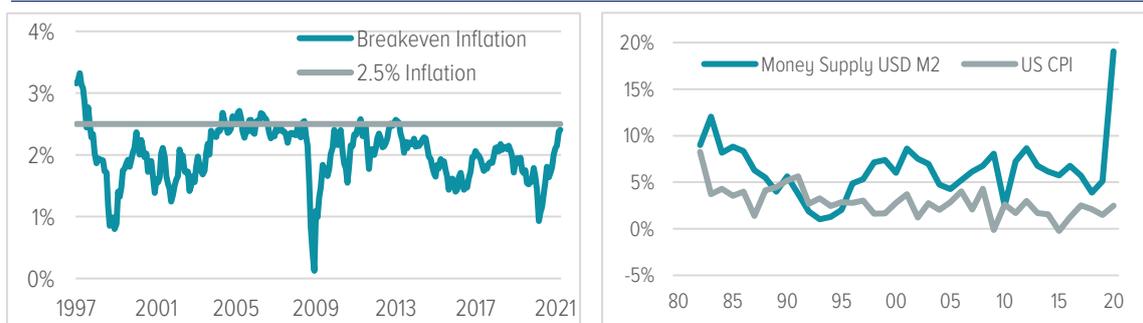
Source: Kempen, Factset, June-21

**Are central banks able to maintain inflation within its targeted range?**

Economies are progressively reopening thanks to rising vaccinations. Monetary and fiscal policy remains accommodative. Hence, investors' worries about inflation are reignited: bond yields have traded higher recently and breakeven inflation has increased to 2.5% (see figure2). Inflation is expected to pick up in the US eventually, fueled by higher commodity prices and trade bottlenecks, while economic growth should accelerate.

The gradual reopening of the economies, following the vaccination roll-out, is triggering an increase in the demand for goods and services that had been depressed during the pandemic - increasing concerns about demand-pull inflation. In addition, the disruptions in the supply chains caused by the Covid-19 pandemic are triggering cost-push inflation too.

**Figure 2: US breakeven inflation (LHS) and US Money Supply (RHS)**

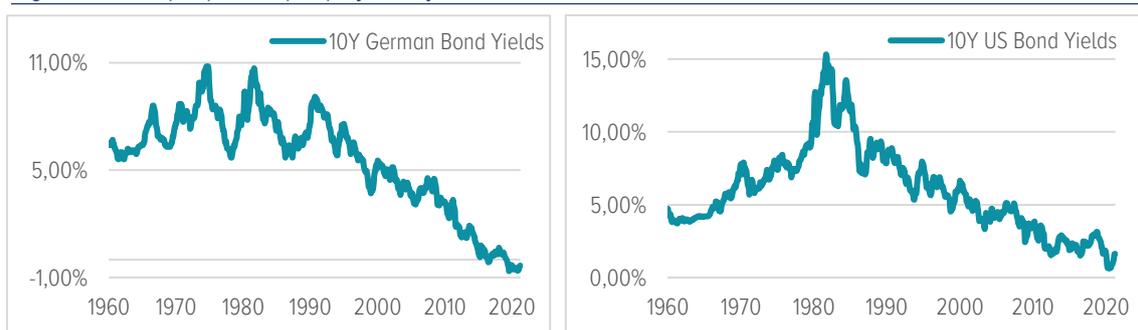


Source: Kempen, Factset, June-21

Furthermore, spending is being supported by enormous stimulus packages that the governments around the world are pouring into the economy. The increase in money supply related to expansionary monetary policies carried out by Central Banks are not necessarily (yet) reflected in inflation spikes. In addition, Central Banks resumed their quantitative easing programs to support the economies with expansionary monetary policies, while Central Banks committed to keep borrowing affordable by keeping interest rates low and pledging not to increase rates in the short to medium term.

Higher inflation expectations are already visible in the bond market where the 10Y US treasury yields steepened on the news of the vaccination roll-out, but the increase was capped in April at around 1.75% before returning to 1.5% without further increase – albeit at arguably still a low base compared to historical data. A similar pattern can be seen in 10Y German Bonds whose yields have increased since the start of the year to then cap in May at -0.10% before then descending again. As for US yields, current German yields are extremely low compared to their historical level (see figure 3).

**Figure 3: German (LHS) and US (RHS) 10yr bond yields**



Source: Kempen, Factset, June-21

## INFRASTRUCTURE TO PROTECT YOUR INVESTMENT PORTFOLIO

This rise in inflation expectations pushes investors towards sectors that have historically offered a great level of protection against inflation. The intrinsic properties of the asset class include inelastic demand for several services (such as utilities or toll road access), stability of the revenue stream and regulated prices, monopolistic position in a market (such as an airport or a railway), and long duration of the investments. The high barriers to entry, regulation and concession agreements allow pricing of infrastructure services often to be linked (indirectly) to inflation.

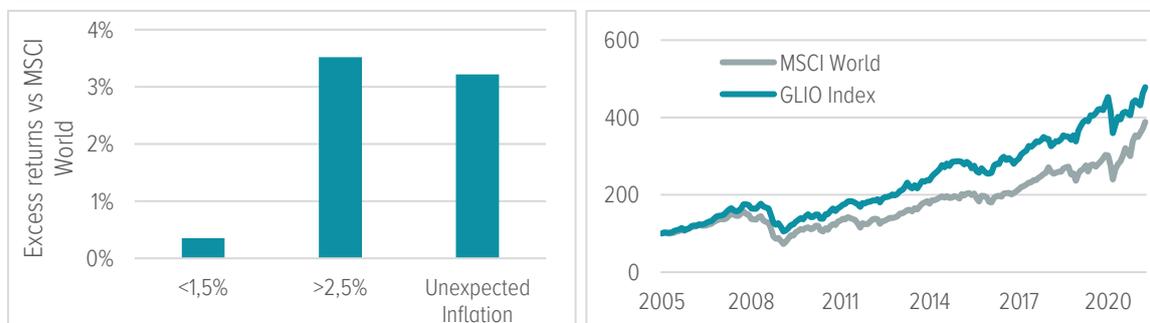
Given the inflation protection of infrastructure assets, we would expect this asset class to outperform the wider market in times of rising inflation. The inflation protection comes from several infrastructure sectors that have pricing mechanisms designed into their contracts that offer inflation pass through - protecting the firms earnings. Below we look at this actual returns in periods of rising inflation.

We analyzed how global listed infrastructure companies performed against the market over the last fifteen years in periods of low inflation (< 1.5%) and high inflation (> 2.5%). In addition, we compared the return of the infrastructure sector to the wider market in the case of unexpected inflation.

Given the strong performance of the sector, the infrastructure companies outperformed equities in all scenarios. However, the outperformance was more significant when inflation was above 2.5%. A common infrastructure benchmark, the GLIO Index (Global Listed Infrastructure Organization Index), comprising of more than 160 listed infrastructure companies, has outperformed the MSCI World Index by 0.4% per year on average when inflation was 1.5% or lower since the beginning of this century.

The outperformance was 3.5% per year on average when inflation was above 2.5%. In the scenario of high inflation, we also computed the effects of unexpected inflation on infrastructure assets returns. Even when unexpected inflation was high, infrastructure equities proved very resilient and the GLIO index outperformed the MSCI World Index by approximately 3.2% on a yearly average.

**Figure 4: Infrastructure Excess Returns vs MSCI World (LHS) and TR of the infrastructure index vs the MSCI World index**



Source: Kempen, GPR GLIO, Factset, June-21

### Effects of high inflation (> 2.5%) on Infrastructure returns

When we broke down our analysis into different geographical locations, we discovered that all the three world macro-regions (Americas, EMEA, APAC) positively contributed to the generation of alpha in periods of sustained inflation. The results gave interesting insights when the companies were divided into their sectors of operation, see below.

The excess return of the more cyclical sectors, railroads and energy transportation, was the highest. Followed by the communication infrastructure which benefits from inflation linked contracts, high operating margins and long duration debt. The transport infrastructure also performed well the assets benefit from increasing tariffs and extra volume driven by economic growth. On the other hand, the more regulated sector utilities, being more defensive and less cyclical, showed the lowest excess return.

High inflation outlook	Average Yearly Outperformance vs MSCI World
<b>Geographical location:</b>	
Americas	5.0%
EMEA	4.4%
APAC	2.7%
<b>Sectors:</b>	
Railroads	20.1%
Energy Transportation & Storage	18.4%
Communication Infrastructure	9.2%
Airports	8.7%
Toll Roads	6.4%

Source: Kempen, GPR GLIO, Factset, June-21

## Unexpected inflation

With unexpected inflation it was noteworthy that assets located in Americas outperformed the market by a yearly average of more than 6.6% – helped by the exposure to the railroads. The latter outperformed most of all the infrastructure subsectors, followed by communication infrastructure and energy transportation and storage. The first and the last sector are the most cyclical infrastructure subsectors for which revenues are indirectly linked to commodities. The underperformance of EMEA is driven by exposure to ports, characterized by low bargaining power in contracts with shipping companies and extreme high competition in the area.

Unexpected inflation outlook	Average Yearly Outperformance vs MSCI World
<b>Geographical location:</b>	
Americas	6.6%
EMEA	-2.7%
APAC	0.5%
<b>Sectors:</b>	
Railroads	14.8%
Communication Infrastructure	12.4%
Energy Transportation & Storage	10.5%
Airports	7.8%
Toll Roads	5.7%

Source: Kempen, GPR GLIO, Factset, June-21

## Drivers of outperformance with < 1.5% inflation

Breaking down the infrastructure universe into different geographies, we noted substantial regional differences when inflation is low. EMEA outperformed the market by a yearly average around 0.2%, APAC underperformed – mostly due to railroads, while Americas outperformed by approximately 2.0%. Communication Infrastructure was the best performing subsector in this scenario. Companies in the sector often have fixed escalators as high as 2%: prices often increase more than the underlying increase in inflation. In addition, more the more defensive sector Utilities reached the top-5.

**Low inflation outlook****Average Yearly Outperformance  
vs MSCI World****Geographical location:**

Americas	2.0%
EMEA	0.2%
APAC	-3.0%

**Sectors:**

Communication Infrastructure	9.5%
Railroads	5.5%
Airports	4.0%
Toll Roads	2.1%
Utilities	1.7%

Source: Kempen, GPR GLIO, Factset, June-21

**Passive Risks**

The infrastructure asset class is well spread over regions and sectors. Hence, inflation protection is not guaranteed by passively investing in the asset class. The inflation protection is impacted by regulatory regime, political interference and the asset's cost base.

To address this risk, it is important that the **regulatory framework** is transparent and predictable. An explicit link to inflation in the contracts is preferred. The regulated utilities are a great example as they offer greater protection than integrated utilities as regulated prices are linked to inflation.

As infrastructure is a strategic asset for a country and represents the backbone of the economy, local **governments** may impose caps on pricing or higher taxes to pursue their own agenda. A clear example are port levies that might be capped to boost trade or highway tolls lightened to obtain electoral favor. The Spanish toll road operator Abertis has a dispute with the Spanish government about compensation of the impact on its toll roads by newly build freeways (ahead of political elections).

Finally, in order to understand the impact of inflation on infrastructure, we must consider the composition of the cost and capital structure within the industry. Infrastructure companies are generally less sensible to **variable costs** as these have lower impact on the P&L than in other industries. Depreciation and interest rates are the main costs – with the latter often being fixed or hedged for longer duration. Having said that, increasing (risk-free) rates could have an adverse impact on the valuation of infrastructure assets.

## SECTOR BASED DEEP DIVE – INFRASTRUCTURE AS INFLATION HEDGE

### Utilities

Utilities are monopolies in most countries. As a result, these companies' pricing is regulated by a regulatory authority that will alter utility pricing to ensure that the utility receives a reasonable return on its investment. The timing for the reassessment of regulatory allowed returns varies on a country by country basis but it usually happens once per year. Moreover, the allowed return on capital is estimated based on CAPEX expenditure, changes in operating costs and higher cost of debt. Consequently, utility companies offer great protection against inflation.

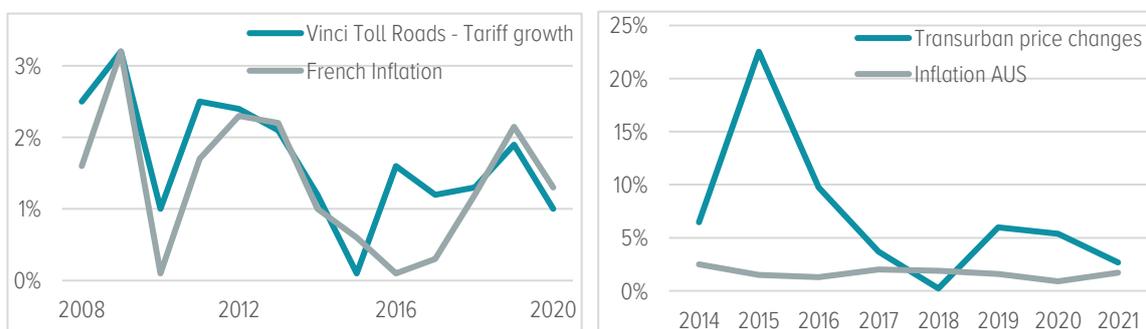
To give an example, National Grid - an English multinational electricity and gas utility company, operates its UK business with allowed returns that embed a year-on-year increase of 3% based on a long-run inflation assumption that is higher than the average inflation of the last forty years in the country. The regulated asset base of Terna, the grid operator in Italy, is adjusted annually for inflation.

However, other utilities do not benefit from an explicit link. Regulators have to determine the allowed return in rate cases for US Utilities, while Japanese utilities recognize in the reporting the impact of time lag – delay in passing through input costs changes to consumers, 2-3 months on average.

### Toll roads

Companies that operate toll roads enter into concession agreements with the local government for a specific amount of years and apply tolls to users to generate a return on their investment. The tolls are usually increased on a regular basis as regulated within the concession agreement. For instance, the French toll-road operator Vinci can increase prices by at least 70% of CPI every year, while most of Transurban's roads in Australia are allowed to increase prices by the greater of CPI or 4%.

Figure 5: Tariffs development of Vinci (LHS) and Transurban (RHS) vs Inflation



Source: Kempen, GPR GLIO, Factset, June-21

### Airports

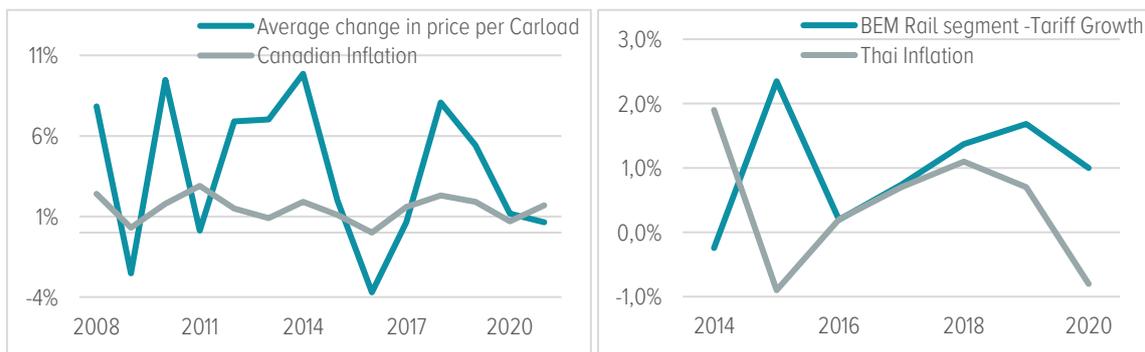
Airports have two business lines in their revenue model. One is the most characteristic and involves management of the runways, taxiways and parking slots used by planes. Tariffs in this case are negotiated directly with the airlines and they may include either fixed escalators or tariffs linked to CPI. The second business models entails the rented out retail spaces, car parking and real estate owned and operated by the airport company. In parking, the company can directly decide about the pricing while real estate and retail spaces are regulated on a contractual basis. Rent charges linked to inflation levels are normal in the business.

### Railroads

The railroad business is very diversified based on the geographical location. In North America, operators are the owners of the railways while in most of the other countries it is the local government that owns the railroad network and this is then given to the operators in the form of long-term concession. In general however, railroads operators enjoy several degrees of freedom in terms of pricing while operating costs are being reduced by developed efficiencies. As the largest cost item for a railroad company is fuel, any change in its cost can directly be passed through passengers and customers. Usually, companies record a time lag of 3 to 6 months depending on the efficiency of the company. As a result, railroad companies offer great protection against inflation.

If we look at emerging markets for instance, Bangkok Expressway and Metro updates its pricing for the rail segment every 2 years based on the inflation over the period. In developed markets instead, Canadian railways, such as Canadian Pacific, pass through to passengers or customers any increase in oil price with a delay of just a few months.

**Figure 6: Tariffs development of Canadian Pacific (LHS) and Bangkok and Metro (RHS) vs Inflation**



Source: Kempen, Factset, June-21

### Communication towers

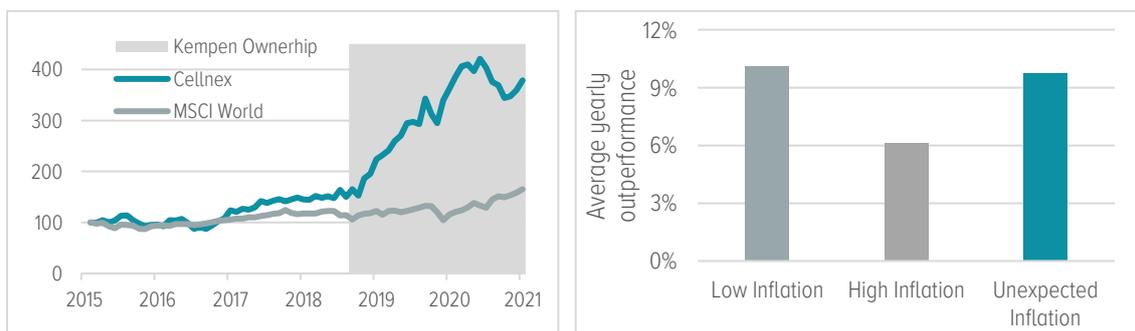
Communication towers contracts with mobile operators have multiple years duration and often they are linked to inflation and/or fixed escalators that are automatically triggered at the end of the calendar year. This leaves a window for inflation to erode margins before the new escalator kicks in. However, often escalators are higher than the average inflation. As a result, prices charged by communication towers often increase more than the underlying increase in inflation, thus boosting earnings.

If we deep dive into the contracts companies sign with their customers, we notice that most of these are CPI linked or have a fix escalators sometimes as high as 2%, thus higher than the average inflation level of the last 15 years. For instance, communication infrastructure historically proved to be a strong hedge during inflationary periods, both for expected and unexpected inflation.

By way of example, Cellnex is a leading telecommunication infrastructure operator with infrastructure assets located in 11 countries throughout Europe. Approximately 65% of its revenues are inflation linked and OPEX is flat due to developed efficiencies to reduce costs. An increase in underlying costs, leading to an increased pricing level would thus result in a more than proportional increase in EBITDA for the company.

Another example in the sector is American Tower Corporation that is a company that engages in the leasing of space on communication sites to providers of different services. What’s interesting about the company is that its lease contracts in the US include average annual fix lease escalators of 3%, well above the average 2% inflation of the last thirty years. Also the lease contracts of properties outside of the US are inflation linked to local indices. This makes American Tower quite resilient against inflation. Indeed, the company proved very resilient against unexpected inflation as well, outperforming the market by a yearly average of almost 10% since listing on the stock exchange.

**Figure 7: Performance of CLNX vs market (LHS) and Excess return of AMT (RHS)**



Source: Kempen, GPR GLIO, Factset, June-21

### CONCLUSION

In addition to the secular growth that listed infrastructure offers, we believe the inflation protection offered by the sector will come more into focus as inflation returns. It will take active investors to distinguish where a higher degree of inflation protection is offered, and hence which companies have the best earnings protection.

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