

Real Estate



The Decisive Eye

A strategic bulletin on issues and opportunities
in European real assets

◆ Issue #23 | Spring 2021

A nighttime photograph of a cityscape featuring a large, illuminated cable-stayed bridge spanning a body of water. In the foreground, a complex multi-level highway interchange with curved ramps is visible, with light trails from vehicles. The city skyline is lit up in the background.

Are real estate investors already
invested in infrastructure?



Indraneel Karlekar, Ph.D.,
Senior Managing Director
Global Head of Research & Strategy
Principal Real Estate Investors



Jonathan Ling,
Senior Research Analyst
Principal Real Estate Investors

D.I.G.I.T.A.L.



Demographics



Innovation



Globalization



Infrastructure



Technology



Active over the
Long-term

Long-term market outperformance



**In this edition, we
will examine the
following issues:**

- How large is the infrastructure and real estate universe?
- Synergies between real estate and infrastructure
- Real estate and infrastructure: A DIGITAL strategy steeped in historical evidence

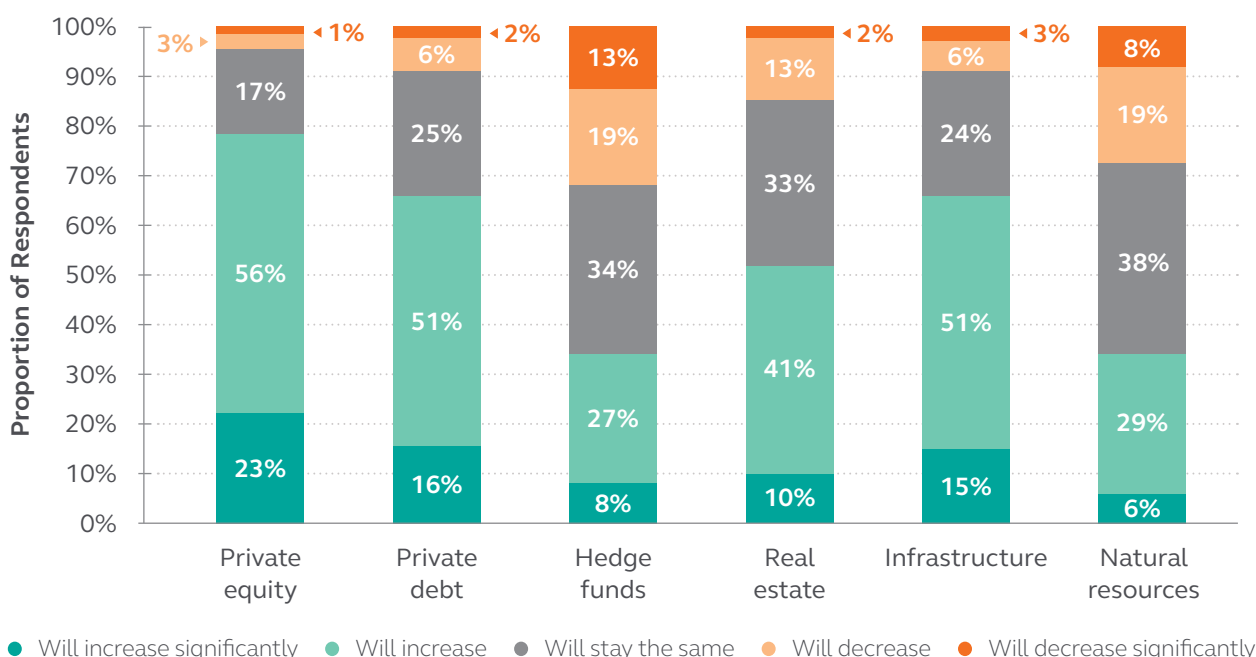
Introduction

COVID-19 will leave an indelible scar on people and businesses which will take time to heal. While optimism mounts as global vaccination gets underway and spring shoots of recovery break through, the ever-present challenges that loom large on the plate for long-term investors remain. The need for income (made even more urgent at a time when extremely accommodative global monetary policy has pushed yields down), portfolio diversification and capital growth remain the trifecta of items on institutional investors' wish list. Add the prospect of higher inflation and we have the ingredients of a cocktail that requires patient and well-constructed investment strategies in the years ahead.

Investors have increasingly embraced real assets to help meet some of these very significant investment challenges given their ability to deliver income-enhanced portfolio diversification. Real estate and infrastructure are two of the largest asset classes that sit within the bucket of real assets and demand for both is expected to grow substantially (exhibit 1). But are infrastructure and real estate discrete buckets as often made out to be? Or are there synergies that can enable investors to take a more holistic approach to an allocation strategy? In this edition of *The Decisive Eye*, we examine the size and opportunity set of infrastructure and commercial real estate, as well as the synergy that exists between the two asset classes. We argue that many real estate investors may already hold infrastructure as part of their portfolios, buttressing the importance of infrastructure as one of the key DIGITAL¹ drivers of a long-term investment strategy.

Exhibit 1: Investors are increasingly seeking allocation to real assets

Investors' plans for their allocation to alternatives by 2025 by asset class



Source: Preqin Investor Survey, August 2020

¹ See information about Principal Real Estate's DIGITAL strategy within [Decisive Eye, June 2018 issue](#) - DIGITAL refers to key long-term growth drivers centred around demographics, innovation, globalization, infrastructure, and technology that Principal has identified as metrics of long-term market outperformance.

How large is the infrastructure and real estate universe?

A key starting premise for any investment is to assess its investment universe, which has important implications for scaling and implementing strategies. Infrastructure, given its wide array of asset classes and economic importance, offers a rapidly growing investable universe. However, limited liquidity along with complications around some ownership structures (roadways, highways, ports for example are often under national public-private partnerships) can make infrastructure a difficult universe to navigate. Infrastructure is often considered a strategic asset and may never make the private domain. Additionally, given the infrequent trading of some assets, the portion of infrastructure that is investable is quite a bit smaller (exhibit 2) when we exclude any privately held assets that have not transacted in the past decade. This speaks directly toward the illiquidity of some assets within private infrastructure.

Conversely, the universe of commercial real estate, both public and private, is much larger according to our calculations. In fact, we estimate that global commercial real estate is nearly half of nominal gross domestic product (GDP) in developed countries, suggesting an abundance of opportunities for global real estate investors. Additionally, key global gateway markets, such as London, New York, or Tokyo, have highly developed and sophisticated transaction markets that provide significant liquidity for buyers and sellers. As we look ahead, continued growth and diversification of commercial real estate and capital market sophistication could also provide an abundance of new opportunities for investors.

Exhibit 2: Commercial real estate offers a large opportunity set

Size of the investable market for commercial real estate and listed/unlisted infrastructure, trillions of USD

USD (trillions)	Commercial real estate	Unlisted infrastructure	Listed infrastructure
North America	\$10.43	\$0.75	\$2.78
Europe	\$8.35	\$0.73	\$0.93
Asia-Pacific	\$4.41	\$0.24	\$0.38
Total	\$23.19	\$1.72	\$4.09

Source: ClearBridge Investments, Principal Real Estate Research, March 2021



The synergies between real estate and infrastructure

Real estate itself is a substantial asset class, part of daily life and is essential for live, work and play. Likewise, infrastructure is ingrained in every facet of life and is a conduit for economic activity. In a sense, real estate could not independently exist without it, and infrastructure would be of little use without the supporting real estate. Moreover, both asset classes also offer benefits of diversification; stable and often growing income yield; and act as a natural hedge against inflation due to the nature of long-term contractual leases that can be tied to inflation and protect income yields. Real assets also act as a source of capital preservation and appreciation, an important goal for most investors.

At its core, infrastructure is comprised of structures and networks, which are essential for an economy to operate efficiently – the backbone of real estate demand. Traditionally, infrastructure assets are grouped between two categories, economic and social. Economic infrastructure, which is essential to the production of goods and services, can be grouped by function such as transportation, energy and utilities and communications. Alternatively, social infrastructure promotes the growth and function of society and includes broad categories such as health, education, community centers and justice.

Although some traditional definitions are rigid, we believe there are three criteria that some sectors of real estate can meet which enhance their similarities to infrastructure:

- 1 are essential for the economy to function;
- 2 provide an important societal need; and
- 3 are irreplaceable for the function they provide.

We believe the following sectors of real estate meet these criteria and can readily fit into the sectors of infrastructure shown in exhibit 3 below. Exposure to these sectors can indirectly increase the diversification of an investors' real assets portfolio. As such, there are indeed some forms of commercial real estate which have similar characteristics to infrastructure, whether through lease design, indexation, or liability. This increasingly blurs the lines between real assets, making the distinction between real estate and infrastructure less evident.

Exhibit 3: Infrastructure and real estate sectors

Economic infrastructure			Social infrastructure
Transportation	Energy & utility	Communications	
Airports	Electricity	Broadcast towers	Courthouses
Bridges	Oil	Cable networks	Hospitals
Rail	Pipelines	Mobile towers	Prisons
Roads	Water/Waste water	Satellite towers	Schools
Seaports		Data centres	Affordable housing
Tunnels			Student housing
Warehouses/ logistics			Care homes
			Medical offices

● Real estate sectors

Source: Principal Real Estate Research

Warehouse/logistics

The industrial sector of real estate is perhaps the most apparent overlap given its clear similarities with and dependency on infrastructure. As we quickly learned during the pandemic, the delivery of goods and grocery is critical for individuals who are secluded to their homes. While traditional public infrastructure, such as roads and bridges, made this possible, the underlying supply chain distribution of these goods was through large warehouses and smaller last mile locations. The entire supply chain therefore is a combination of “pure” play infrastructure assets such as road, port and train networks and real estate assets such as industrial warehouses. In fact, it may be quite possible that we see retail parks converted into logistics hubs in the future and see this go full circle.

Data centres

The increased dependency on data in the modern era has also given rise to data centres, which are becoming the backbone of the digital economy. The storage and dissemination of data has made this niche sector paramount in the continuity of business operations and efficiencies. The pandemic disrupted normal office operations for many white-collar employees, yet high-speed internet connections paired with data centres allowed many jobs to seamlessly shift to remote work. Although not true for all occupations, the absence of a shift to remote work would have resulted in a far more damaging global recession, or even depression, than was experienced in 2020. Therefore, data centres, and the data they support, have become an essential piece of infrastructure for the global economy.



Affordable housing

Housing is also increasingly in the media headlines due to the ongoing housing shortage across much of Europe and the globe. Additionally, social investment is an increasingly important consideration for investors looking to support under-housed communities. This trend has also been stimulated by the growing emphasis on ESG issues increasingly interwoven into the investment landscape. As we think of its relevance to infrastructure, it's hard to envision a reality where housing is not vital for individuals to contribute meaningfully to the economy. For many, it has also recently become their workplace. Although this is an abnormal period in the timeline of human behaviour, there will undoubtedly be some persistent trends. Housing is dually vital to the shelter and productivity of an economy's largest contributor – its workforce.

Healthcare: medical offices/ care homes

The healthcare sector may have been overlooked in this analysis just a year prior. The effects of the pandemic, however, have highlighted the need for continued medical research and development, as well as focused attention to the key role of long-term care homes. Healthcare needs are rising in developed markets and are increasingly a vital element of social infrastructure. Particularly, as new conditions and diseases emerge, the research conducted in these specialised structures is vital to the prevention and treatment of illnesses. In fact, this research is as important as the care and administration of drugs carried out in hospitals. Without the proper space and equipment, current vaccines for the COVID-19 virus could not have been developed. The absence of the vaccine in our current crisis would have inevitably led to an increased number of deaths and a deeper economic contraction with an incalculable social cost.

Real estate and infrastructure: regulatory guideposts



Social and economic regulations are becoming increasingly prevalent

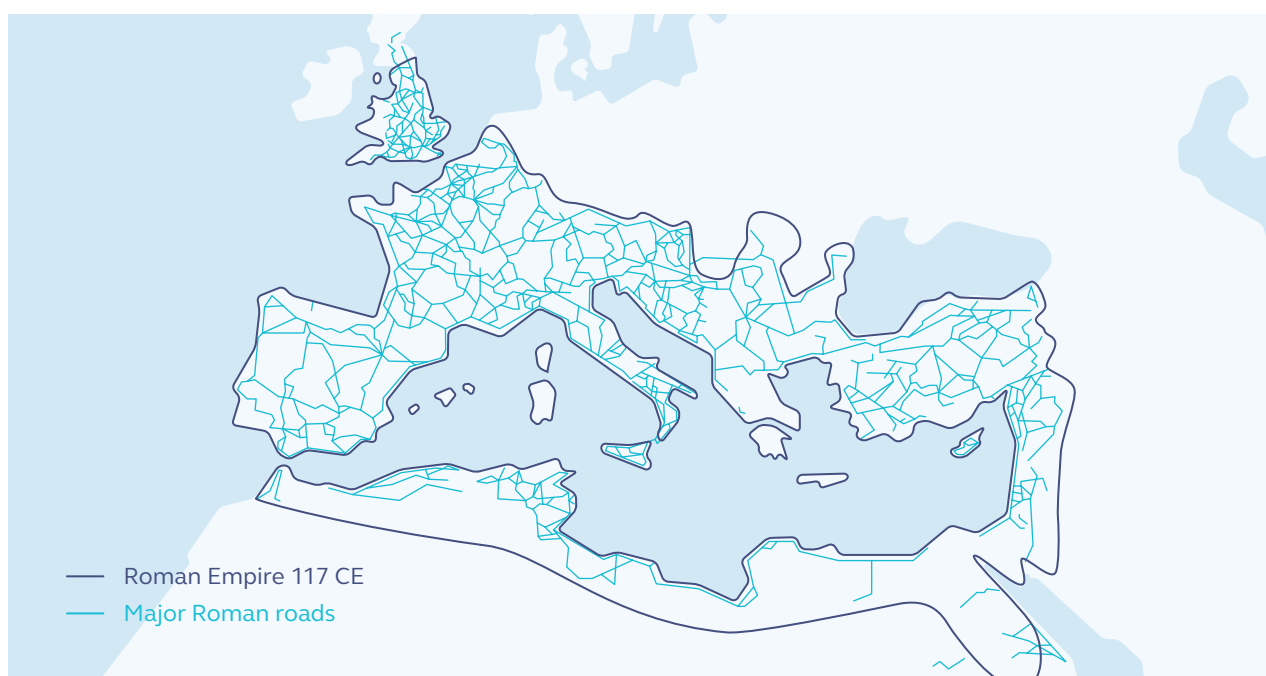
in society as policymakers focus on equity within a broader context of Environmental, Social, and Governance (ESG). In real estate, rent control measures are one key example of policy framework attempting to solve a very challenging issue of housing affordability in a world of growing income inequality. Although such measures may not offer the best long-term solution, they do highlight the fact that some governments are actively viewing affordable housing as vital societal infrastructure which they are acting to protect. Conversely, infrastructure is no stranger to government intervention, due to the need for standardisation, fairness, and viability. Roads, energy plants, and hospitals for example, whether publicly or privately owned, must be accessible for all businesses and individuals to contribute to the economy and meet expectations of social goodness. Investors must be prepared for the increased scrutiny and intervention by policymakers in real estate as it is increasingly viewed as infrastructure and vice-versa.



Real estate and infrastructure: A DIGITAL strategy steeped in historical evidence

A final thought on real estate and infrastructure is the lasting impact it produces on society. Real estate and infrastructure have had a huge impact on economic growth and is well-documented in history. In fact, a visualization of the road systems built in the Roman empire and the economic growth it engendered as early as 117 CE is shown in exhibit 4 below. Infrastructure investments are a powerful catalyst of growth and for this reason it is a key pillar of our DIGITAL investment strategy. Our strategy centers on the notion that real estate often directly benefits from exposure to infrastructure. The expansion of the underground train system in London at the turn of the 19th century is another moment in history where infrastructure acted as a massive catalyst for growth. Modern day examples of transit-oriented development highlight this, with projects such as “Grand Paris” spurring real estate activity and investment opportunities in new areas around the French metropolis.

Exhibit 4: Major roads of the Roman empire



Source: On Roman roads and the sources of persistence and non-persistence in development
Carl-Johan Dalgaard, Nicolai Kaarsen, Ola Olsson, Pablo Selaya 10 April 2018, CEPR



About Principal Real Estate

Principal Real Estate is the dedicated real estate investment group within Principal Global Investors. Our real estate capabilities span the spectrum of public and private equity and debt investments. Our specialised market knowledge, dedicated and experienced teams around the globe, and extensive connections across all four real estate quadrants support our efforts to maximize opportunities and find the best relative value on behalf of our clients.

Top 10

global real estate
manager²

\$88.1 billion

in real estate assets under
management³

More than

60 years

of real estate experience⁴

² Managers ranked by total worldwide assets (net of leverage), as of 30 June 2020.
“Largest Real Estate Managers,” Pensions & Investments, 5 October 2020.

³ As of 31 December 2020.

⁴ Experience includes investment activities beginning in the real estate investment area of Principal Life Insurance Company and continuing through the firm to present.

Risk Considerations

Investing involves risk, including possible loss of principal. Past performance is no guarantee of future results. Potential investors should be aware of the risks inherent to owning and investing in real estate, including value fluctuations, capital market pricing volatility, liquidity risks, leverage, credit risk, occupancy risk and legal risk. All these risks can lead to a decline in the value of the real estate.

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.

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 (EU) Limited, Sobo Works, Windmill Lane, Dublin D02 K156, Ireland. Principal Global Investors (EU) Limited is regulated by the Central Bank of Ireland. **United Kingdom** by Principal Global Investors (Europe) Limited, Level 1, 1 Wood Street, London, EC2V 7 JB, registered in England, No. 03819986, which is authorised and regulated by the Financial Conduct Authority ("FCA"). **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). The contents of the document have been approved by the relevant entity. Clients that do not directly contract with Principal Global Investors (Europe) Limited ("PGIE") or Principal Global Investors (EU) Limited ("PGI EU") 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 PGI EU, PGIE or PGI EU may delegate management authority to affiliates that are not authorized 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 Dubai** 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 organization. This document is intended for sophisticated institutional and professional investors only.
- **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 (Chapter 289). 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. This document is intended for sophisticated institutional investors only.
- **Switzerland** by Principal Global Investors (Switzerland) GmbH.
- **Hong Kong SAR (China)** by Principal Global Investors (Hong Kong) Limited, which is regulated by the Securities and Futures Commission and is directed exclusively at professional investors as defined by the Securities and Futures Ordinance.
- **Other APAC Countries**, 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.

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.

Strictly for Institutional, Professional, Qualified and/or Wholesale Investor Use Only in Permitted Jurisdictions as defined by local laws and regulations.



© 2021 Principal Financial Services, Inc. Principal, Principal and symbol design and Principal Financial Group are registered trademarks and service marks of Principal Financial Services, Inc., a member of the Principal Financial Group company. Principal Real Estate Investors is a dedicated real estate investment management group within Principal Global Investors. Principal Global Investors leads global asset management at Principal®.

MM9914-04 | 03/2021 | 1576650-032022