

Contents

- 03 Introduction
- The expanding operational real estate universe
- O8 The changing investment universe for operational real estate
- 23 Conclusions
- 24 Contacts



Published November 2024. All research in this report is copyright/proprietary from Macfarlanes and Montfort unless otherwise stated.

Endnotes can be found on page 25.

Introduction

Foreword

Last year, Macfarlanes documented one of the most important structural changes in the real estate industry in the present time: the increasing "operationalisation" of real estate.

Real estate investors in their hunt for yield have had to look not only to the features of the building, but toward the underlying activities that take place within it. At the time, we recognised this emergent trend, and the increasing role that operational real estate was playing in today's market.

Operational real estate (OPRE) definition: "A real estate asset is operational in nature when income and values are to some extent linked to the performance of the underlying operator."

Since releasing the report, things have moved swiftly, and perhaps more so than we had anticipated, albeit happily in the prevailing direction we set out. In speaking to leaders with broad experience of OPRE over the last quarter, we have discovered a landscape that remains emergent in terms of maturing asset classes, sources of investment finance and the wider business environment.

We have reconvened with our co-authors of <u>last year's report</u> and we have interviewed experts across the investment, management and operational tiers of OPRE to bring to you this update.

Assisted by original research, their testimony has been synthesised into this market overview, which maps the scale and growth potential of the OPRE market, which sectors are maturing, and how the investment landscape is changing.

We would like to thank the following for devoting their time and expertise to the findings of this report:

- Ashley Perry, Investment Director, Apache Capital Partners
- James Dunne, Head of Operational Real Estate, abrdn
- Riccardo Abello, Partner Co-Head Real Estate, Eurazeo
- Charles Ferguson-Davie, Co-CEO and CIO, Moorfield Group
- Hugo Llewelyn, CEO, Newcore Capital Management LLP
- Floris Hovingh, Managing Director, Perella Weinberg Partners
- Steven Redshaw, Managing Director and Russell Loveland, Managing Director, Pradera Lateral
- Andrew Lawrence, Director, Sadel Group

Entrants to the OPRE market or experienced participants will find this update helpful in seeking new opportunities and obtaining the best value from existing projects.

About Macfarlanes

Macfarlanes is a London-based law firm which occupies a distinctive position in the London legal market. It offers a broad range of legal services in relation to both domestic and international matters, combined with an agility and culture to meet the most challenging demands of the changing world.

Macfarlanes prioritises quality above all else and clients benefit from the experience of our dedicated OPRE team, with the track record, experience and industry relationships to advise on all aspects of this developing sector.

You can find the OPRE team contacts on page 24.

Macfarlanes would like to thank our co-authors of this report, Montfort Communications, an award-winning consultancy, delivering data-driven strategic advice to the world's leading companies, individuals and organisations.



Executive summary

While it has only been 18 months since our first report on OPRE, there have been notable changes in that market in the UK since that time:



OPRE is responding to the "4D" mega-trends

 Demography, digitalisation, deglobalisation and decarbonisation are changing what society needs from real estate and infrastructure. Especially pronounced in the last year has been the exponential advance in artificial intelligence, driving demand for data centres over and above the ongoing demand stemming from cloud computing. As housing affordability has been further stretched by the cost of living, a wider segment of society is renting into their later years, supporting the ongoing development of single family housing. Changing consumer habits are requiring a ramping up of cold storage provision and the logistics around the supply of food to shops and consumers. Finally, geopolitical tensions and recent external shocks to supply chains are encouraging industries to reshore.



There are constraints that are preventing OPRE from achieving its potential

There remain structural issues that must be navigated. Sectors from logistics to data centres, especially in and around major cities, are currently constrained by access to power, with potential delays that can be many years in duration. The planning system imposes similar delays, with approval processes often slow and unpredictable. While some of these challenges are not limited to OPRE, the recent change of government has shown a renewed emphasis on tackling planning delays, improving housing delivery and renewing the UK's infrastructure.



A maturing sector

• The scope of asset classes that constitute OPRE has proliferated. OPRE first started in the alternative sectors like hotels, self-storage and living, but as our previous report identified, mainstream asset classes such as shopping centres and offices are becoming increasingly operationalised in response to changing consumer and occupier demands and shorter leases. What has become more evident in the last 18 months is that certain investments are also being viewed as infrastructure, such as data centres, cold storage and even energy positive buildings, as well as OPRE.



Sources of investment

- Higher interest rates led to reduced transactions and stricter lending standards. Much as was the case in the global financial crisis, more traditional lenders, such as banks and insurers, have scaled back. This void has been filled by alternative lenders, including private equity. While major central banks are now on a rate-cutting path, the expansion of private credit is likely to be a permanent structural change thanks to a regulatory-driven retrenchment of bank lending.
- Managers and operators are increasingly looking to infrastructure investors for financing. This generates a win/win for both sides in that the investment manager and operator access lower costs of funds, and the infrastructure investor obtains the long-term stable income it prefers through economic rents and lower correlation with wider markets. Yet it is also the case that, as real estate has looked to the operational fundamentals of the assets in which it invests, these segments of the real estate sector begin to blur the lines between real estate and infrastructure.



The ongoing importance of domain knowledge

• It has become apparent that there is "no free lunch" when it comes to investment in OPRE and no one-size-fits-all approach to investment across sectors. There remains no substitute for oversight of the operational business. As a corollary, the relationship between owner and occupier remains under the microscope, with owners and occupiers in OPRE increasingly looking for partners in one another in order to extract the most value. This often also extends to the assembly of the right mix of occupiers, especially the case in the creation of innovation workspace and life sciences labs, as part of the operational strategy.

More institutional investors will come back into the retail sector.
One reason being because of the relative value that retail can show compared to other asset classes once you factor in its income potential. We can demonstrate this potential to the investor from the wealth of data we collect, receive and share across the value chain.

Steven Redshaw Managing Director Pradera Lateral

The expanding operational real estate universe

Definition and scope of OPRE

When a real estate asset is "operational", we mean that an investor tends to look beyond traditional notions of value, and toward the underlying performance of the occupier (or more commonly, an operator).¹

Typically, OPRE involves an investor who provides capital for investment in premises, managers who create the right conditions for economic value to be created, and operators who generate value from economic activity in operational businesses. See the "OPRE supply chain key players – the principal actors" diagram overleaf for more on the parties involved in OPRE.



Estimates of current and total market value by OPRE sector

Sector	Current market estimate (£bn)	Estimated mature market (£bn)
Build-to-rent	62 ²	184 – 322³
Single family housing	6.84	36 – 59 ⁵
PBSA	85.8 ⁶	166.3 ^{7 8}
Co-living	4.89	13910
Senior living	6311	21912
Hotels	24.313	4814
Co-working	515	15.816
Self-storage	11.617	30.618
Cold storage	9.619	10.5 - 14.4 ²⁰
Data centres	23 ^{21 22 23}	8224
Total	296	931 – 1096

Note: Our estimates are based on our best understanding of market saturation and growth rates and are based on subjective analysis of data from property research and sector-specific bodies as footnoted.

OPRE supply chain key players - The principal actors

OPRE involves three principal groups:



Investors

Objective

Provide the capital necessary for the acquisition, operation and development of OPRE.

Key considerations

- A willingness to be exposed to operational risk.
- Does the operational nature of investment match their overall preferences.
- Interest in the fundamentals of the operator and its business.
- Access to the data to judge value and worth of the underlying investment.
- Visibility of the operator's performance and willingness to permit autonomy.
- Ability to measure risk and return considerations.
- May set targets for the operator.



Managers

Objective

Manages investment strategies in line with the investor's strategy and capital allocation. Maintains oversight of the operator.

Key considerations

- Setting up attractive prospects and strategies for investors to access OPRE.
- Identifying exit strategies that enable investors to obtain returns.
- Discharging fiduciary duties in respect of OPRE.
- Data conduit between investors and operators.
- Monitoring and oversight of the operator on behalf of investors.
- May be incentivised by the investor.
- May take an equity stake in the operator.



Operators

Objective

Implement and maintain OPRE strategies and maintain OPRE assets.

Key considerations

- A focus on growing their underlying business.
- May introduce control measures to ensure the manager and investor honour obligations.
- Agree remuneration for the provision of operational services, perhaps with performance linked incentives.
- Branding and marketing.
- Business resilience and continuity.

The commercialisation of traditional real estate

OPRE has not left traditional real estate untouched. Mainstream real estate asset classes have gravitated toward OPRE out of necessity, in what is often called "commercialisation". The rise of a more demanding customer base in offices and retail has been a particular spur. While a demand for more flexible leases in offices and in retail pre-dated the pandemic, it has arguably accelerated during that time and since, with many commercial entities unwilling to take on the risk of a long lease. Responding to occupier needs and demands, in turn internalising the requirements of consumers, has meant finding ways to encourage consumers to visit offices (often enticed by additional services provided by the owner) and retail (often in a more curated, experience-led format).

In the case of shopping centres, encouraging visits to physical retail has involved thinking beyond the retail experience, with many shopping centres becoming more akin to community hubs. LandSec's Lewisham Shopping Centre, for example, incorporates the Museum of Migration, Changing Places Toilets, warm hubs in the winter months and parcel lockers for the local community to use.

In the case of offices, some office designs, such as was the case with Derwent's White Collar Factory, have focused on creating ecosystems that cater to a particular target market, informed by close study of markets overseas.

The ongoing popularity of management agreements over conventional leases in flexible workspaces, according to Savills²⁵, is because they are risk and cost-effective for the operator and permit greater transparency to the owner as to delivery and underlying operations. While the "hotelification" of flexible workspace is sometimes pointed to as being one of the operational hallmarks of the office sector, it is the rise of management agreements that are perhaps its clearest harbinger.

In the case of alternatives and core real estate, a great unifier is that investors and managers have had to grow closer to occupiers. It has also been the case that lower-grade stock offers a value creation opportunity for investors that have the capital and the ability to pivot them toward current customer preferences.

The net result is that real estate has become more expansive in its taste in asset classes. For example, when the Urban Land Institute and PwC began their Emerging Trends²⁶ series of reports in 2004, it covered nine asset classes, but in the most recent report the number has grown to 26. Where once offices and retail had sat, emerging sectors such as self-storage and data centres are now jostling for investment.

Importance of OPRE to the UK real estate market

2023 was a more subdued year in terms of investment in OPRE, mainly driven by a highly inflationary environment and high costs of funds. However, 2024 so far has represented something of a return to form. OPRE investment has averaged a quarterly investment of £1.5bn each quarter since 2019. Q1 of 2024 was the first time since Q4 2022 that investment values returned to above that average (and 2019 and 2021 were notable high investment years). In Q3 2023, OPRE accounted for around 8% of total real estate investment in the UK, but in Q4 2024, this had increased to around 19%²⁷.

With any investment you need to understand your customer and their drivers and needs. When we are getting closer to the operations of our assets or our operators and understanding the customers, that's exactly what we are doing.

James Dunne

Head of Operational Real Estate abrdn

The Macfarlanes view

What are some of the reasons for the ongoing trend toward operationalisation?

Robert Porter, Senior Consultant

The trend toward operationalisation of real estate is not a product of a single phenomenon. The commercialisation of core commercial asset classes such as offices and retail has been down to the acceleration of longstanding trends, such as the rise of hybrid working and the growth of e-commerce.

Meanwhile, in the alternatives, exposure to additional structural trends is changing consumer habits. The increasing digitalisation of our lives and shifts in demographics are just two that are having seismic effects on where we live, how we spend our leisure time and how we perform our jobs. For example, the increase in single person households is supporting the growth of co-living and housing affordability is helping to propagate the growth of multifamily and single family housing.

These trends affect real estate in three primary ways: first, in the case of commercial premises, there is a trend toward increasing specialisation, where premises become specific to their use, with accompanying demands in terms of the skills of teams. This is especially the case in data centres and in cold storage.

Second, some classes of OPRE are beginning to take on the characteristics of infrastructure, both in the way they act as investments and in their attractiveness to more institutional investors. In sectors such as healthcare, data centres and cold storage, there are signs of interest in more stabilised

assets from institutional investors. We should expect to see more exits from private equity and traditional real estate of stabilised assets to this class of investor.

Third, there is an increasing porousness in the relationship between owner and occupier. We have seen shared endeavours between owners and occupiers arise previously in debates around building quality and energy efficiency, but structural change has fostered necessity. There is now greater risk and reward sharing in OPRE between what have previously been more distant entities. Accompanying that changing relationship is data collection and exchange, which acts as a means to keep all parties honest and as a common basis on which to drive value through asset management and operational excellence.



The changing investment universe for operational real estate

In this section, we will explore the relative interests of traditional real estate owners, infrastructure investors and private equity in OPRE through different lenses to identify what is attractive to each type of investor (or not). This is to inform those seeking investment how to select investor partners, and in the case of managers and operators, how best to work with investors.

Emergence of overlap between infrastructure and real estate and the approach of investors and funders to this

Segments of OPRE such as data centres, logistics, healthcare and residential rental accommodation have become so supported by structural trends that they have become borderline essential. Infrastructure shares this very quality, in that very often it occupies a non-rivalrous and non-excluding position as an essential service which is difficult to mimic, and so affords protection against downturns and the ability to stabilise portfolios. One area in which OPRE differs from infrastructure is that the barriers to entry within a particular class of OPRE are less intrinsic to the asset class and more to do with risk appetite and operational leverage (e.g. knowhow and operational expertise). Infrastructure at the less risky end of the spectrum also tends to benefit from low-correlation with other asset classes. However, investor surveys have

suggested that in the recent interest rates environment, super-core and core infrastructure investment has fallen out of favour, with investors looking for higher reward investments with accompanying risk²⁸ within core plus and value add. While these riskier investments are typically the preserve of private equity, the latter has found it more difficult to fundraise, having benefitted from a long period of low cost of credit. By comparison, the innate features of infrastructure funds have proven attractive.

OPRE assets that are akin to alternatives are favoured by infrastructure investors because they offer a means to receive inflation-linked revenues which are often driven by the underlying performance of the asset. Build-to-rent, logistics and data centres often afford escalations in revenue that are linked to inflation (e.g. via index-linked uplifts, or analysis of market level growth), meaning that the value of investments is protected over time. As many infrastructure assets are former state-owned assets in privatised industries in the UK, they benefit from revenues that are regulated and indexed to inflation. However, in making in-roads into sectors such as telecoms masts and data centres, infrastructure investors may need to make upfront investments and absorb some operational risks to gain presence in the market.

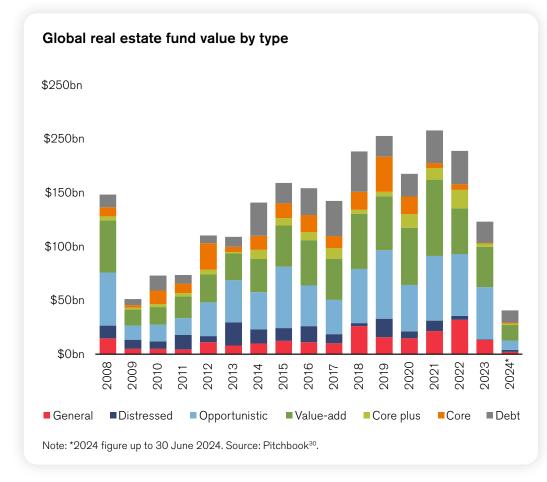
OPRE has some principal-agent risks that manifest more frequently than in infrastructure. In the case where the investor, manager and operator are not the same entity, there may be risks of operator drift if control measures and incentives do not align well with the intentions of the investor. Moreover, recent surveys of investors have indicated that infrastructure investors are more reluctant to partner with first-time managers²⁹.

Infrastructure may hold synergies with OPRE, and in some cases help to increase the value of each through co-investment. Logistics has a symbiotic relationship

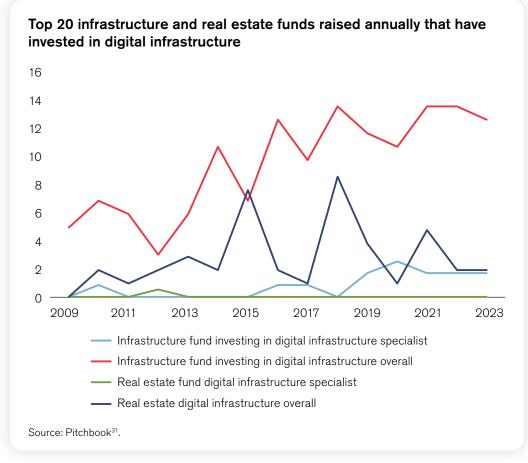
with transport networks such as roads and freight, which infrastructure investors may already own, and establishing logistics nodes near to main logistics routes can help to support logistics businesses, fuelling stations and electric vehicle charging. In another sense, the energy demand from cold storage means it is logical to position them close to renewable energy schemes or to strike power purchase agreements with local land users to erect energy generation schemes. OPRE therefore affords an opportunity for infrastructure investors to double down in a particular thematic space or to exploit relationships between classes of real estate and infrastructure.

Our investors are institutional, including local government pension schemes and insurance companies. Investors in real estate who want an alternative to conventional real estate and traditional infrastructure equity investors who are coming down the risk-curve for a more defensive strategy in these volatile times.

Hugo Llewelyn CEO Newcore Capital Management LLP



The general trend over time in real estate markets has been toward increased investment in value add and opportunistic investments by real estate funds (see Global real estate fund value by type above). That said, fund values raised have been lower in 2023 and 2024, owing to the more constrained fundraising environment.



One phenomenon identified by Pitchbook is that asset allocators and fund managers have noted the outperformance of digital infrastructure. While both real estate funds and infrastructure funds have invested in digital infrastructure including data centres, 70.7% was raised by infrastructure funds and among the top 20 infrastructure and real estate funds over the period, infrastructure funds investing in digital infrastructure overall have been the more numerous, 32 raising around \$44bn. Digital infrastructure appears to be an area where there is not only a blurring of the definitions of that which is real estate and that which is infrastructure, but also a common pool from which both real estate and infrastructure funds are drawing.

More generally, research of investments by noted infrastructure investors shows emerging interest toward certain classes of OPRE. Logistics and industrials, social infrastructure (especially large operators of private schooling) and data centres are the predominant categories favoured by major investors.

For example, Stonepeak invested in private education company Inspired Education in 2022³³, and EQT in Nord Anglia (alongside Neuberger Berman and CPP Investments³⁴). More recently this year, Brookfield Asset Management led a consortium to invest in GEMS Education³⁵.

Cold storage has also seen notable investments. Blackstone invested in Cloverleaf Cold Storage selling to REIT Americold in 2019³⁶, Arcus in Constellation Cold Logistics before agreeing its sale to EQT³⁷, and Stonepeak in Lineage³⁸.

The recent acquisition of Airtrunk by Blackstone from Macquarie came notably from Blackstone funds for real estate, infrastructure, tactical opportunities and private equity strategy for individual investors, with investment also from the Canada Pension Plan Investment Board³⁹. Meanwhile, Arcus's investment in Portus⁴⁰, EQT's in EdgeConnex⁴¹ and I Squared Capital's in Nlighten⁴² demonstrate data centres' popularity with investors.

Benefits of general expansion of what is being viewed as infrastructure

The general expansion of the definition of infrastructure poses benefits for OPRE. As we have observed elsewhere in this report, stabilised OPRE assets tend to offer the steady, long-term cashflows that infrastructure investments afford, and as the market develops a class of more conservative investors that are looking for predictable returns are likely to crowd in. This adds to the diversity of funding sources that OPRE requires, and potentially opens the door to an increased range of funding options such as public-private partnerships and novel investment vehicles.

A further benefit is that, by focusing on value based on notions other than net asset value, and focusing on income, they can achieve higher valuations than those which are conventionally enjoyed by real estate. However, as established elsewhere in this report, this requires a degree of data exchange and transparency that is currently only fully enjoyed in highly transparent sectors, and there needs to be more routinised data exchange to support effective markets in emerging asset classes.

OPRE often has synergies with conventional infrastructure investment (e.g. the link between renewable energy schemes and data centres to satisfy the latter's energy demand). The involvement of infrastructure specialists in OPRE investments of this type can help to avoid some of the issues with viability and development risk that might accompany schemes where vital infrastructure is missing.

Risk profile

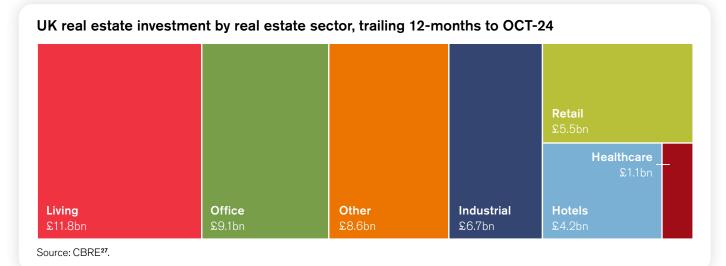
Comparison of risk profiles between traditional real estate, private equity and infrastructure funds

In the evolving investor landscape, different types of investment funds are gravitating toward particular asset classes based on the qualities that they offer.

Private equity tends to favour high risk and high reward opportunities in OPRE, often funded via equity. Private equity tends to be in the vanguard of forays into underdeveloped sectors, or to participate in rescue investments of underperforming assets, and especially where upfront capital and the ability to execute can be applied. Hold periods will tend to be shorter, with a defined and preferred calendar to exit.

Infrastructure funds will tend to favour long-term investments, and preferably toward the core end of the spectrum. However, there is a recognition that development risk, especially on greenfield projects or in newer sectors such as data centres, may attract the need for upfront investment before returns can be accessed. That said, moderate returns for such investors can be sufficient if they are expected to be enjoyed over long timescales.

Traditional real estate investors, by contrast, have tended to use OPRE as either a method to shield existing core assets from falling values and shifts in customer behaviour or to use alternatives to generate value from income. The risk profile of traditional real estate investment is therefore more nuanced.



Investment horizon

Typical investment horizons for traditional real estate, private equity and infrastructure funds

The typical investment horizon of funds, including infrastructure, private equity and real estate funds is critical for investors seeking to navigate the landscape of OPRE. Each investment type has characteristics which make them appropriate to OPRE strategies.

Infrastructure funds tend to operate on an investment horizon of 10 - 15 years with a focus on networks that deliver essential services, and traditionally in sectors such as transport and utilities. The classic investment classes for infrastructure funds offer long-term, stable income, backed by long-term trends and offering essential goods to society. OPRE sectors such as logistics and the living sectors offer an analogous proposition, once they have been stabilised. The long-term income favoured by infrastructure funds tend to attract more risk-averse investors.

Private equity real estate often looks towards shorter timescales of 7 - 10 years, and focus on value add and opportunistic strategies given that they draw upon equities for funding. As mentioned elsewhere in this report, they normally focus on rescue investments and the acquisition of underperforming assets where value can be extracted through repositioning. Given that private equity real estate thrives on active management, leveraging strong management teams with operational expertise, it is a good fit for OPRE, but typically only if there is a defined and time-limited exit point. Private equity real estate also tends to be more adaptive to changes in the market, and better able to capitalise upon emerging trends. As one might expect, investors expect higher IRRs due to the active management approach, and this can lead to higher volatility of performance. One issue is that in the recent high rates environment, private equity has found greater difficulty in raising funds, meaning that infrastructure funds have compared favourably.

How private equity chooses to manage platforms can vary. Charles Ferguson-Davie, Moorfield, weighs the options: "We have built our own in-house platforms and invested in them but we currently prefer to outsource the property management role and provide a fee to an operator. We have relatively short term 5 - 7 year funds if we want some sort of long-term involvement in a sector opportunity, you can get into some conflicts between funds if a previous fund owns the operating platform and we often don't have the scale to justify owning the platform. Fundamentally our primary purpose is to invest in real estate but if you own the platform you can end up spending a lot of time managing and incurring the costs of a head office. We find that this can distract from the real estate part and can create some conflicts around the right time to exit or complicate an exit."

In the case of Moorfield, the asset management function remains integral and in-house, which allows them to manage and direct the operator. As Charles Ferguson-Davie puts it: "We have experience across multiple OPRE sectors; including multifamily, single family, student accommodation, nursing homes, senior living and self-storage as well as more traditional real estate sectors. We can bring that experience to bear to challenge and get the best from the operator, but we retain the option to replace them if things are not working out. That's harder to do if you own the operating business."

The extent of involvement in the operator's business can vary too. Hugo Llewelyn, Newcore Capital, said: "The primary care service in a doctor's surgery requires the building, and there are skills that we have as a property investor that go beyond the provision of capital and ensuring the building is resilient. It works well when specialist capital managers own the asset and lease to the service providers providing complex services at affordable rental levels."

Traditional real estate investments have tended to rely more on shorter investment timescales of 5 but extending to 10 years. Traditionally there has been a balanced approach to stability and growth and providing investments, and for this reason, some traditional real estate investors have combined different OPRE classes within portfolios. In fair market conditions, real estate owners might rely on core and core + investments to

generate consistent income, with the ability to pivot to value add when markets are underperforming or sluggish.

The mix of preferences and investor types suggests that far from there being one investor type that performs every role in OPRE, the mix is useful for blending the long-term view of infrastructure funds, the value creation potential of private equity and the long-term income generation of traditional real estate.

Riccardo Abello at Eurazeo has launched a dedicated OPRE fund. "This year, Eurazeo launched a specialised OPRE fund capitalising on our 10 year experience in the sector. We believe the physical asset alone is no longer sufficient to generate alpha in a real estate investment. A more certain path to alpha creation is to run the assets and their underlying businesses together, investing in both, while having a more agile operational leverage. In OPRE the product is the new covenant: both smaller performing platforms, as well as those in need of a product enhancement, present an opportunity for substantial value creation."

James Dunne, Head of Operational Living, abrdn observes: "If we think about where purpose built student accommodation was 10–15 years ago, there was high net worth and private equity capital priming that sector. As there are more assets available and the market deepens and matures, institutional capital comes along and is very happy in that space."

Floris Hovingh agrees: "The reality is that private equity requires a return of 20% plus. This compares to infrastructure returns of 15%. PE is naturally well-placed to grow a real asset and create the right structure, governance and maturity of cashflows that those assets can be flipped to core+infrastructure funds at a lower IRR."



The Macfarlanes view

What does the near term refinancing and recapitalisation market look like for OPRE?

Jat Bains, Partner

While interest rates may appear to be loosening, interest rates remain at close to their highest rates in over a decade. Much early real estate debt will have been secured in the comparatively low rates environment of around a decade ago and these are likely to mature in the next few years. This refinancing threshold is likely to be a driver to OPRE.

With many real estate firms facing a need to refinance or recapitalise, they will need to begin to consider their options, if not doing so already. High interest rates may be compressing loans-to-value, pushing them outside the comfort zone of conventional lenders. If debt-funded, it may be sensible to inject equity or open dialogue with existing lenders about reducing debt levels. The same extends to dialogue with new lenders, where an additional option may be to try to raise equity contributions.

An early dialogue with lenders is also advisable. Proactive engagement avoids refinancing risk, and maximises the chances of finding a solution that works. It is also more likely that options to avoid issues and defaults in the future will present themselves if dialogue is opened at an early stage.

Property owners could undertake straight debt-for-equity swaps, but property owners in sectors that are at risk of falling capital values may find benefit in bringing onboard teams that can help to leverage improved income, as well as demonstrating the income generation that accompanies OPRE; this is after all its core thesis.

What of OPRE that is seeking to refinance or recapitalise? OPRE is conventionally more sensitive to the performance of underlying businesses, with the increased exposure to operational risk accompanied by a greater potential for outperformance. Where market demands remain high, especially where supported by structural trends, theoretically OPRE can resist wider macroeconomic circumstances. However, some sectors are undoubtedly affected by the wider macroeconomic conditions; the advantage is that via control of operations (or at least oversight), outperformance can be driven and overheads minimised.

Existing OPRE facing refinancing or recapitalisation need to evaluate their operational performance and scenario test their business model to demonstrate its resilience. They should also be prepared to describe in qualitative terms the strength of their team and be able to relate how they have shown resilience.



Liquidity

As one might expect, different investor classes have different preferences when seeking exposure to OPRE. Infrastructure funds, institutional investors, private equity and real estate funds have differing liquidity preferences and innate characteristics which shape their investment strategies. The focus for infrastructure funds is long-term, preferably protected cashflows, often accepting of lower liquidity in exchange for access to assets that provide essential services.

Institutional investors, on the other hand, tend to balance their liabilities with more flexible liquidity strategies leveraging secondary markets and partnerships.

Private equity funds prioritise high returns, and so are willing to contend with longer lock-up periods as they get to grips with value creation. However, exit options must be conducive to achieving that return.

Real estate funds must choose a path between the capital appreciation offered by closed-ended funds and the open-ended funds that afford freedom of periodic redemptions.

Table of liquidity concerns by project phase and investor type Level of liquidity concern: illiquid — more liquid Investment phase Hold phase Exit phase Secondary sales or refinance. Infrastructure Long-term stable commitment. Long-term value focus. funds Limited initial liquidity with initial investment Refinancing strategies are impacted by As with the investment phase, exits may tied up with minimal short-term flexibility. regulatory scrutiny, especially for critical be subject to scrutiny or political oversight. infrastructure and those providing public Regulatory approvals where relevant may Limited buyer pools mean longer exit periods. services or goods. impact liquidity options. Institutional Direct ownership or partnerships. Secondary market sales or JV exit. Portfolio diversification for liquidity. investors Balancing between liquidity and the stability needed The UK secondary market for OPRE is wellfor liability matching. Generally use co-investments. developed providing flexibility for institutional investors to adjust liquidity. UK pension funds must abide by solvency rules, impacting liquidity. Value creation focus with initial lock-up. Operational improvements and Private equity Trade sales or IPO. recapitalisation strategies. funds Limited short-term liquidity. The UK market for OPRE may see variable Interim liquidity possible. interest from strategic buyers, influenced by Long lock-up period with the aim of operational local regulations and macroeconomic factors. restructuring. Will wish to exit at a premium which means Consideration of planning and regulatory requirements finding buyers that seek stabilised assets. may impact liquidity and extend time horizons. Real estate Leverage and refinancing to release equity to Capital raised with defined redemption options. Property sale or fund end. investors. funds Flexibility varies by fund type. Open-ended funds experience liquidity issues Periodic redemptions possible for open-ended funds. during times of economic stress which may act as a counterweight to the uncorrelated nature Leveraging UK assets may be affected by changes in of many OPRE classes to macro trends. taxation including SDLT, impacting refinancing. Note: This table was created based on a synthesis of interviews and multiple industry insights and reports including those published by State Street Global Advisors, J.P. Morgan, Marsh McLennan, and Reed Smith. It aims

Note: This table was created based on a synthesis of interviews and multiple industry insights and reports including those published by State Street Global Advisors, J.P. Morgan, Marsh McLennan, and Reed Smith. It aims to provide a summarised and subjective view of liquidity considerations across fund types accessing OPRE. Sources: State Street Global Advisors. (n.d.). Real asset and private market liquidity considerations (Accessed: 20 November 2024); J.P. Morgan. (n.d.). Rising tide: Secondaries and private market liquidity (Accessed: 20 November 2024); Marsh McLennan. (2021). Infrastructure: A primer (Accessed: 20 November 2024); and Reed Smith. (2020). Fund finance: The solution to the liquidity needs of private equity (Accessed: 20 November 2024).

The Macfarlanes view

What to look for in OPRE partners

Justin Hope, Partner and Victoria Hills, Partner

We have heard time and again in our interviews that the quality of partner in OPRE is critical. While the degree of strength of each party in the relationship changes according to the structures used to access OPRE, there are some constants that define what each party should be looking for in OPRE partners.

The investor will be seeking to achieve a return from the investment and a manager that is willing to operate within the scope of the investor's strategy. Investors may target niches or convictions that narrow the field of qualifying investments for reasons as diverse as branding, or because they have identified a structurally supported trend. For example, this might include investment in data centres owing to the recent developments in Al.



The manager, on the other hand, will likely seek some latitude to secure returns and there is some scope for "manager drift" in instances where promising returns arise outside of the investor's strategy. The investor will seek coherence whereas the manager will frequently wish to have the freedom to follow the market. This means that the investor will look for a manager that shares some belief in its market thesis and may opt to incentivise the manager to ensure their objectives align.

Given the fusion of the underlying business with the asset, the strength of the operator is paramount and a priority for both the investor and manager. Measuring the strength of the operator is more art than science, but if the manager is ultimately seeking to drive both yield compression to boost liquidity and also the value of the underlying business (in which it may have taken a stake), then the investor and manager will ultimately wish to understand both the financial and the operational strength of the operator.

Clearly, this will rely on conventional financial measures of company health such as net operating income, but qualitative assessments will also play a role including an assessment of how robust the team is, how the operator has coped with adversity in the past and how the business understands its key risks.

Managers may also build into their criteria consideration of the entrepreneurialism of the operator, with a view to its potential to enhance value creation by providing additional services.



The operator, by its turn, is seeking a partner that is willing to invest in its business, and to be supportive, as well as to remunerate it for the services it provides. A well-advised operator will wish to know the criteria upon which it will be evaluated, and wherever possible the objectives of the investor with a view to determining alignment with their own objectives.

The Macfarlanes view

Strategies for tax optimisation

Sarah Shucksmith, Partner

OPRE is a broad and growing sector with some investors moving towards operating real estate rich trading businesses while other strategies exhibit infrastructure like characteristics. Thoughtful structuring is key to unlocking value in the OPRE space, owing to the diversity of strategies, investors and assets. Tax opportunities can even arise within traditional strategies which introduce additional income streams, such as renewable energy production.

As ever, proactive ongoing consideration of the optimal structure is crucial to unlocking value.

Moving towards an operational strategy can create opportunities for preferential tax treatment that property rental investors are not usually able to access. The availability will depend on the facts of each strategy as well as the nature of the investors.

At the heart of the opportunity is the distinction between investment and trading activity for UK tax purposes. Thoughtful structuring may enable access to favourable regimes, even for assets held as part of a single strategy.

Trading activities can benefit from a variety of favourable capital gains reliefs, including the substantial shareholding exemption and the non-resident capital gains tax trading exemption.

UK vehicles may also be used to hold non-UK OPRE investments with new options such as the qualifying asset

holding company (QAHC) regime offering a competitive alternative to Luxembourg structures for pan-European real estate platforms.

The best option for an operational strategy may involve holding different aspects in different vehicles to optimise the tax profile, both on an ongoing basis and on exit. This may be the case even when different aspects of the strategy involve the same underlying real estate.

Therefore, with the growing breadth of the OPRE sector, new opportunities for tax efficient structuring of both UK and non-UK portfolios are emerging. In view of this, it is all the more important to consider the optimal structure at the outset, while also considering potential opportunities as the strategies evolve.



Value and worth

An alternative approach

In our previous report, we cited the recommendations of the Investment Property Forum (IPF) as to how to value OPRE. In its proposed approach, a discounted cashflow model is used. IRRs tend to still be popular, however, as they are easier to calculate. The IPF, however, does make more recommendations for the valuation of OPRE, which entails separating the physical and operational risks from the operator during appraisal, and finding ways to evaluate the performance of the operator. A net present value approach is then used with a discount rate that binds in the traditional property risks, operational risks, sectoral risks and the resilience of the operator.

Evaluating the input values for such an analysis means arriving at a set of measures that can evaluate both financial strength and operational strength. The Investor KPI map on the following page, shows a series of input metrics that operators and fund managers can use to value OPRE and manage it on a daily basis.

It is important to note that the long-term and stable income generating features of established OPRE assets can be emphasised through the use of the KPIs set out in the Investor KPI map. Institutional investors will wish to understand how long-term performance is balanced with short-term income generation from a financial perspective. They will also wish to understand, especially where listed or subject to regulatory scrutiny, the risks to which they are exposed.

Similarly, private equity investors who frequently acquire assets that are not performing well with a view to repositioning them will require data disclosures to understand the underlying business and how its performance can be improved.

The Macfarlanes view The challenges of NAV

Dan Marriott, Partner and Andrew Hughes, Partner

Net asset value (NAV) is often used to value real estate assets, but it can be counterproductive to use it in the case of conveying the value creation benefit of OPRE.

NAV is reflective of the market value of an asset subtracting any liabilities. This fails to capture the value created by the activities that are conducted within the premises themselves. Reliance on capital appreciation of assets is no longer a sound strategy. Real estate investments now depend on income generation, maintaining occupancy and management efficiency.

NAV ignores critical metrics such as cashflow, the quality of

the operator and the terms of the lease, which will be important

for both fund managers and investors to both enhance and preserve the income and value creation of the asset. In other words, NAV obscures the true economic value of the asset.

NAV can also be susceptible to market volatility and fluctuations, which can skew results. The asset value of real estate can vary based on external factors such as economic conditions, interest rates, and local market dynamics, and also historic and comparable data. Appraisals may also rely on subjective criteria or lag behind market realities, leading to distortions in NAV. This misalignment can mislead investors who rely solely on NAV to gauge performance or make investment decisions.

Furthermore, NAV does not account for potential future value creation or capital expenditures required to enhance property performance. OPRE often involves ongoing investments in maintenance, upgrades, and tenant services, which can significantly affect long-term value but are not reflected, or rewarded, in a static NAV calculation.

Lastly, NAV can obscure the operational risks inherent in real estate management. Factors like tenant turnover, lease expirations and market saturation can all impact revenue generation but may not be adequately represented in NAV figures.



NAV provides a snapshot of asset value, but it fails to

encapsulate the complexities of OPRE. A more holistic

approach, incorporating operational performance and

market dynamics, is necessary for a comprehensive

valuation of these assets.



Communicating worth to investors

Investor KPI map

Financial strength

Cash flow metrics

Use metrics that show the cash generating potential of the business such as cash on return, EBITDA and NOI.

Yield and income

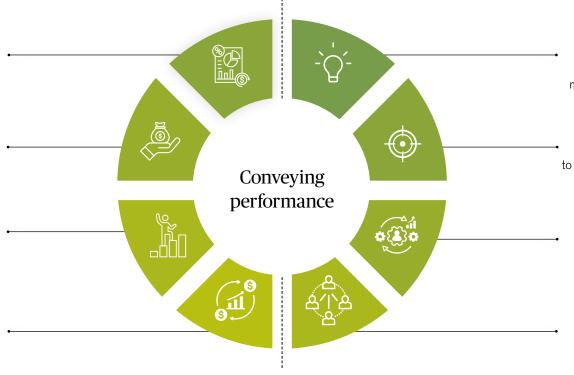
Convey return from the property and the profit from the business using cap rate and operating profit respectively.

Business strength

Use sector-appropriate KPIs to assert business performance such as occupancy rates and REVPAR.

Return metrics

Show value creation through ROI, combining income and capital appreciation, and internal rate of return.



Operational strength

Strategic narrative

Ensure a business plan with key milestones and risk mitigation strategies, among other strategic assets.

Market position

Use market data and consumer research to identify market position and convey what makes the business and asset different.

Operator strength

Emphasise the quality and resilience of the operating team.

Investment structure

Explain how the investment structure safeguards value and mitigates risk.

To effectively communicate value beyond NAV, it's essential to highlight both financial and operational strength.

For example:

- present cash flow metrics (EBITDA, NOI) and occupancy to demonstrate ongoing asset health;
- use IRR and cash-on-cash return to show how the investment aligns with desired return profiles;
- communicate strategic business plans, showcasing the operator's experience and the plan for income enhancement; and
- benchmark performance against **industry standards** to highlight superior growth potential or competitive advantage.

Social value and impact

ESG reporting requirements capture large investors and fund managers, and there is an increasing weight of legislation that is designed to capture the real estate sector. In our discussions with interviewees, many cited both the need for resilience in the assets constructed and efficiency in operations. Andrew Lawrence pointed to the fact that Sadel Group had recently invested £20m into changing Magnavale's refrigeration to improve its energy efficiency by 30%. Faced with limited options to green energy supplies through onsite renewables, Sadel Group has also signed power purchase agreements with local farmers to place solar panels on their fields. As investor and operator are fused in the case of Magnavale, the benefits of operational improvements do not suffer from the circle of blame in the case of splits in responsibilities.

Legislative imperatives to manage factors of ESG also exist but legislation that defines the scope of impacts that real estate entities should monitor and address is undergoing some flux. Efforts are being made to arrive at common reporting standards worldwide via initiatives such as the International Sustainability Standards Board (ISSB) under the aegis of the International Financial Reporting Standards Foundation. The Government has confirmed its intention to follow these standards and to introduce a framework to reflect this approach⁴³. A key point where the ISSB and the EU have begun to deviate, however, lies in the concept of materiality. While the ISSB (and the UK) will tend to follow a financial materiality test, the EU favours a double materiality approach, wherein the needs of both investors and other stakeholders must be taken into account. The Corporate Sustainability Due Diligence Directive in the "EU Sustainability Laws" table is an example of the EU implementing such a requirement. Double materiality is likely to pose challenges for real estate entities that are unable to obtain visibility of wider supply chains, whereas OPRE businesses, will usually have a more integrated supply chain (even where the investor, manager and operator are not one and the same) and likely a greater visibility of data that will inform disclosure and reporting.

EU sustainability laws

Legislation	Purpose	Application to real estate
EU Taxonomy	Categorisation of different investments that can be considered sustainable	Applies to real estate investments
Sustainable Finance Disclosures Regulation (SFDR)	Sustainable disclosure rules and classification of investments	Includes disclosure rules for real estate entities via principal adverse indicators and classification of types of investment
Corporate Sustainability Due Diligence Directive	Monitoring of own operations and supply chain for adverse human and environmental impacts	Applies to larger companies and listed SMEs
Corporate Sustainability Reporting Directive	Report on environmental and social risks to the enterprise	Applies to real estate companies in some circumstances
Alternative Investment Fund Managers Directive (AIFMD)	Alternative fund managers must include environmental and social risks in their SFDR disclosures	Applies to real estate companies active in or vending to the EU
Markets in Financial Instruments Directive (MIFID II)	Requirements to accommodate the client's sustainability demands in investment products offered to the market	Applies to real estate companies



Similarly, the Sustainable Finance Disclosures Regulation includes measurement against a series of principal adverse impact indicators for which it is hard to envisage success unless investors, managers and occupiers co-operate and exchange data. Reporting to global norms such as the Taskforce on Climate Related Financial Disclosures and the International Sustainability Standards Board both recommend reporting of Scope 3 (supply chain) emissions (see the Emissions scopes typology table below), again requiring a much closer and transparent relationship across supply chains than traditional real estate has enjoyed. This is not to say that this is not a challenge that can be resolved without OPRE, but the requisite information exchange is facilitated by OPRE, and there is greater scope for goal alignment between investor, manager and operator.

OPRE can also lend itself to delivery of impact-related investment with a social and/or societal purpose. Hugo Llewelyn, explains that Newcore invests in social infrastructure such as education, courts, doctors' surgeries, public sector depots and other civic buildings. "We see social infrastructure's purpose to be about providing secure and dignified services for UK society. In every case, you need a building to enable the service to function, and it isn't something that can be easily digitalised. A low-levered property strategy in social infrastructure is appealing to those who want sensible, long-term financial returns, that are supported by services that have longevity, and that have an impact focus. The best returns in the long-term tend to come from assets that are useful to society and fit for the future."

Emissions scopes typology

Scope 1

- Direct emissions that the company owns or controls
- Example: natural gas purchased by the company and used to fire an onsite heating system

Scope 2

- Indirect emissions that are a consequence of a company's activities and typically occurring upstream
- Emissions arising from purchased electricity, by virtue of fuels used in its generation

Scope 3

- Indirect emissions that are a consequence of the company's activities and typically occurring downstream
- Emissions associated with construction materials, occupier energy use and those associated with services purchased

Understanding who our customers are is key to adding value to operations. Gathering this information helps us to create and curate a programme that boosts return visits and dwell time to the benefit of our retail occupiers.

Russell Loveland Managing Director Pradera Lateral

Building quality

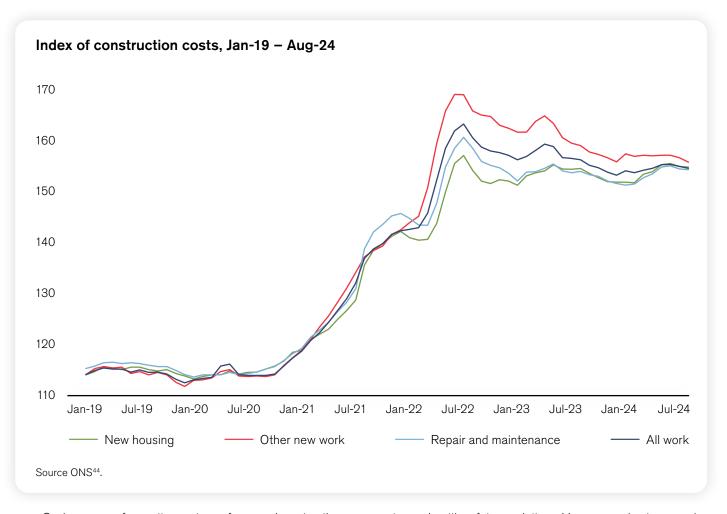
The specialised nature of many OPRE assets, and the fusion of asset and underlying business that accompanies OPRE, means that the quality of assets matters for the purposes of the long-term value. In traditional construction and real estate, there is a tension between initial costs and long-term gains, and reversion to standard operating procedures needs to be resisted in developing new assets. Investors may be tempted to cut costs during times of economic stress and increased costs by removing optional additions such as sensors for data analytics. For example, construction costs have risen notably since 2021 (see Index of construction costs).

James Dunne, Head of Operational Living at abrdn said: "As a long-term investor, I may not choose short term net operating income for optimisation for my asset because I want to reinvest which may benefit me over a 10 - 20 year timeframe. It is important that the goals of investor, manager and operator are aligned."

Andrew Lawrence, Magnavale, agrees: "Given the upfront investment required in developing cold storage facilities and food hubs, analogies to infrastructure investment apply here. You have to take a longer-term view, whereas real estate has tended to operate in 3 - 5 year cycles. Cold storage facilities and food hubs are long-term holds."

Andrew Lawrence makes a comparison to the US: "Part of the issue is that some investors there are following the vogue for cold storage without having the operational knowhow and understanding of the sector. This becomes embedded in the facilities themselves, which are likely to be obsolescent in 5-10 years rather than being able to operate for an optimal 50-60 years."

In sectors such as build-to-rent, it is well documented that the highly amenitised model has been imported from the US, with Apache's Angel Gardens in Manchester's Northern Quarter being an early example, with a view to delivering a quality customer experience. The 34-storey tower has a sky garden and a five-a-side pitch/padel tennis court with a residents only



gym. Such a range of amenity requires a focus on knowing the market and its preferences with a view to ensuring that upfront investment delivers the expected yield. In the case of the living sectors, this entails ensuring resident/occupier retention.

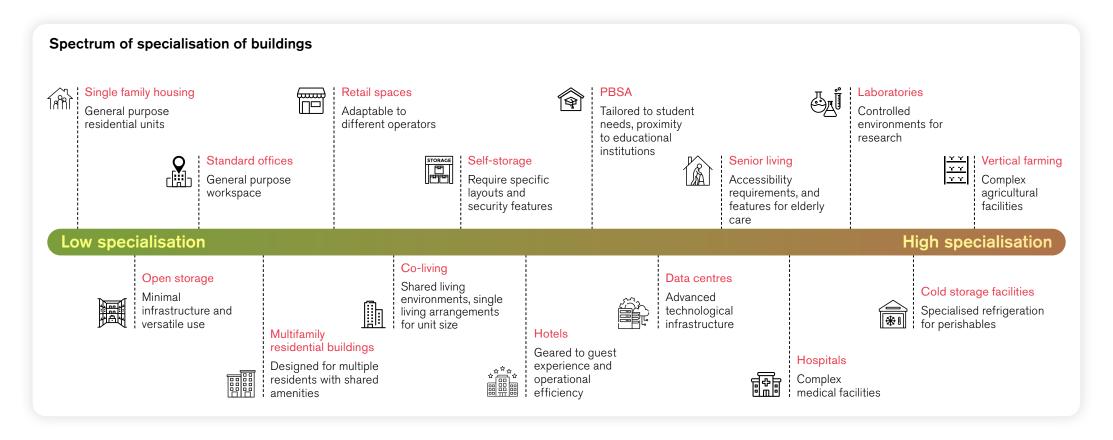
Beyond the quality of customer experience, a recent focus on building safety has meant that taller and more complex buildings must comply with safety regulations. However, as business and asset become more fused, the asset must operate in a fashion that is conducive to the business and prevents harm to the brand. In the case of cold storage this might entail speed of fulfilment and reducing the points of failure that might prevent fulfilment (see case study on Magnavale Easton on page 22).

Increasing specialisation of buildings

Each use class of a building is specialised but the extent of specialisation in some classes of OPRE is especially pronounced (see the Spectrum of specialisation of buildings diagram below). Specialised buildings provide the necessary infrastructure for businesses to complete their core functions. It is difficult to imagine a hospital without operating theatres, imaging centres and patient care units, and indeed without the specialist teams that not only know how to operate the equipment but to deliver services that use them.

Specialised facilities also have the benefit of enhancing operational efficiency. In the case of cold storage facilities, automation promotes productivity and streamlines processes such as deconsolidation where shipments are split before redistribution.

In some cases, the benefits of specialisation are accompanied by specific locational and resource requirements. Cold storage facilities also need to be near to customers, and are heavily automated: "more like machines than buildings" according to Magnavale Managing Director Andrew Lawrence. Hence, cold storage facilities and food hubs are near ports and distribution hubs. This also constrains site availability. Once established, the sites and buildings of cold storage businesses are a strategic resource. Magnavale's facilities are in Grimsby, Easton, Warrington and Chesterfield. Yorkshire and the North West are key markets for cold storage in the UK. London and the South East hold the largest concentration of food and retail cold storage. This contrasts with broader industrial, where the majority are in the Midlands⁴⁵.



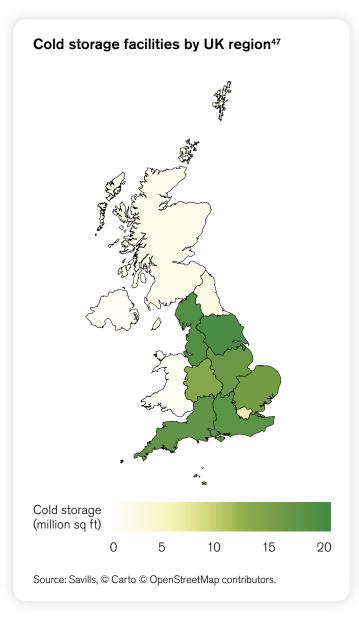
Finally, much as the structural trends we have identified create opportunities and adaptational pressure that favour certain asset classes, they also stimulate change within asset classes. The requirements of edge data centres versus those of colocation (colo) data centres being a case in point. Al workloads also tend to demand more in terms of energy and cooling, meaning that there is a further bifurcation in data centres. Data centres for colocation and edge must be close to where customers are. Glenigan⁴⁶ has identified 434 projects comprising data centres and/or IT processing facilities in planning in the UK, with the majority close to population centres in London and the South East. These include integrated owner, developer and operator Global South's development in Tower Hamlets and data centre REIT Equinix's facility in Slough. The power demand, combined with data centres' imposing footprint can make them contentious in local planning.

As a vector of UK future productivity, the Government has recognised data centres as Critical National Infrastructure, potentially allowing local opposition to be overruled. In the meantime, OPRE businesses that manage to secure permission have essentially been conferred an advantage over other OPRE businesses.

Magnavale Easton Phase II case study

Magnavale Easton Phase II is built around the cold chain. The temperature controlled facility can hold 101,000 pallets at frozen temperatures and is designed with no single point of failure. The facility will run entirely from renewables, which will power monorails and cranes to enable fast fulfillment.

It is just off the A1, positioned for onward distribution and can offer additional value add services for the food sector including blast freezing and packing.



Platform quality

Platforms support the scalability of a proposition and provide an avenue to spread risk.

As platforms are built-up, they also present economies of scale to operators and investors. It becomes easier to absorb additional assets into the platform and use systems already inplace to reposition them.

A platform also enables the development of a brand presence and the encouragement of an association in customer's minds as to what the brand stands for. James Dunne, abrdn, is working with John Lewis Partnership on the management of its build-to-rent assets: "It's about the main tenets of a retail business: understand your customer, give them what they want at a price point they can afford and provide excellent service in doing so. Equally, behind the scenes, there needs to be a close focus on cost control, systems and delivery. These are all things at which a retail business like John Lewis Partnership excels."

Interviewees also agreed that fund managers and investors tend to look for operators that have shown significant resilience, and for that to inform platform quality. James Dunne said: "Covid's about as doomsday as it is going to get in terms of its impact on operations. Operators that can show how they reacted and recovered are important."

Ashley Perry, Apache Capital, emphasises the importance of finding the right location and level at which to sit operational teams, especially in growing platforms: "We are focused on net operating income optimisation which is generally driven through operational cost control given the underlying rental growth driven market dynamics in each microlocation. Cost exposure can be managed through sharing resources across assets: a city manager or multi-site manager could be brought in, efficiencies of scale across FM functions can be achieved and marketing costs can be centralised. This is a prefiguration of some of the key questions that the living sector will face if and when portfolios get created that are 10,000 - 20,000 units strong, akin to the market in the US. In short, we are focused on how best to manage the twin demands of net income and customer experience."

Conclusions

Summary of main findings

Real estate continues to operationalise

- OPRE is responding to long-term structural trends the forces of digitalisation, deglobalisation, demography and decarbonisation are changing societal preferences as to what is required from real estate, and real estate is responding.
- OPRE continues to respond to sluggish capital appreciation, and seeks to generate income.
- Many of the challenges that are observed in conventional real estate, including planning risk and delays to utility connections, can be applied to OPRE.
- The increasing operationalisation of real estate is manifesting in the commercialisation of core commercial asset classes and in sectors traditionally considered "alternative".
- Operationalisation is leading to a new class of more specialised buildings that support their underlying businesses. This is arguably going to lead to path dependence as regards the trend toward operationalisation. Buildings that are bespoke to their function will require expert operators and managers who understand the dynamics of the business. This is especially the case in highly automated and highly regulated sectors."
- The specialised nature of some buildings in OPRE requires a forethought from investors and a long-term view in order to support value creation. Lessons learned from the launch of "copycat" forays into sectors such as cold storage in the US suggest that some assets have not been built for longevity and the yield such investments should command.

The investment base for OPRE is diversifying

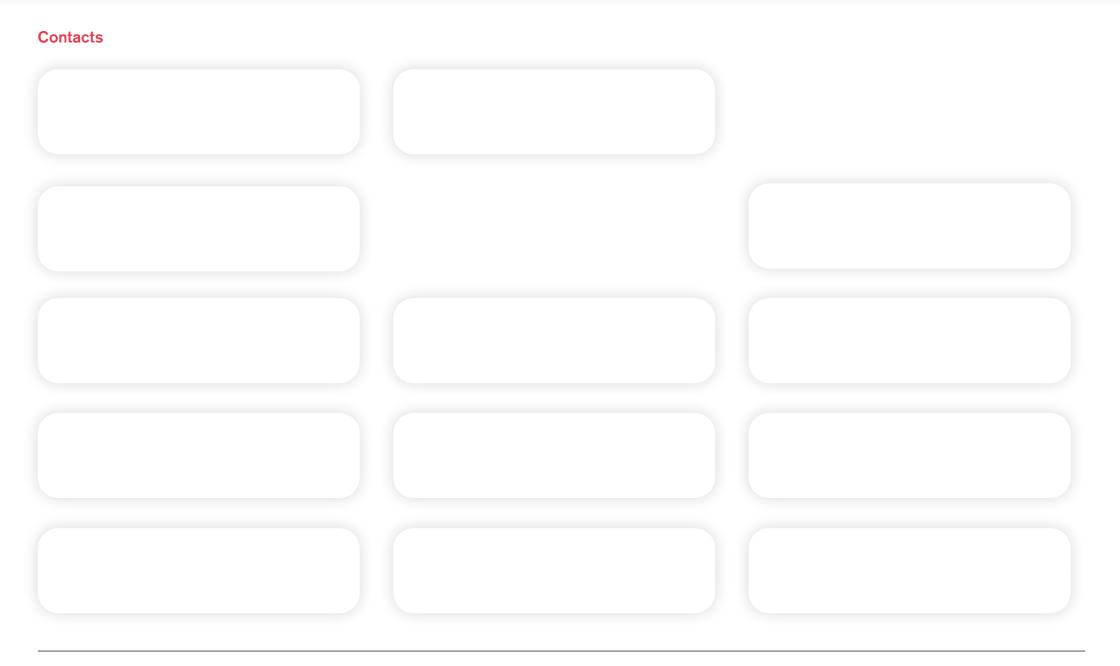
- Certain investments such as data centres, cold storage, medical scanning, care homes and logistics are attracting the beginnings of interest from infrastructure funds and other institutional investors.
- Interest from institutional investors is also coming to the burgeoning social infrastructure sector, where essential services provided by civic buildings can offer the returns and protections that such investors prefer.
- As sectors become more mature and stable assets proliferate, if those sectors can offer long-term stable income with some form of protection, the chances are that they will attract institutional funds.
- There is a need for capital from the riskier end of investment to prime markets and reposition assets which once stabilised can be sold on to institutional investors.
- Conventional norms of valuation need supplementary metrics and KPIs to fully capture the value that OPRE assets bring.
 We have set out at page 17, some suggested additional measures that can be used to align investors, managers and operators.

Investors and fund managers need to understand the operator's business

- OPRE is far from a passive investment, and interviewees in particular emphasised the need for immersion in the underlying businesses that accompany OPRE assets.
- This step is seen as key to developing additional products and services that can be put forward to the clients and customers of operators, improve yields for managers and increase returns for investors.
- While OPRE offers inflation protection, some sectors may be exposed to costs that bear inflation such as wages and utility costs in the hotel sector.

The line between real estate and infrastructure is blurring at the margins

- As real estate has looked to the operational fundamentals
 of the assets in which it invests, these segments of the real
 estate sector begin to blur the lines between real estate and
 infrastructure.
- This generates a win/win for both sides in that the real estate manager and operator access lower costs of funds, and the infrastructure investor obtains the long-term stable income it prefers through economic rents and lower correlation with equities.



Endnotes

- Matthew Richardson et al. (2021) Operational Real Estate: Risk and Reward. London: Investment Property Forum, p. 38. Available here (Accessed: 22 September 2024).
- 2. Maturity, Liquidity and Why Investors are Backing BTR (2024), Available here (Accessed: 24 October 2024).
- 3. We make the assumption that institutional investment in UK housing will reach a conservative estimate of between ~50% of the equivalent current institutional investment in US multifamily and 100% of that value (~35%). According to Savills, institutional investment accounts for ~2% of the UK market. We have made assumptions of investment values per unit.
- 4. BNP Paribas (2024), Maturity, Liquidity and Why Investors are Backing BTR.
- 5. BNP Paribas (2024), Maturity, Liquidity and Why Investors are Backing BTR estimates that Single Family Housing will be worth £59 bn by 2028. The alternative scenario is what might happen if the UK followed the same pathway as the US. If we map to the US where according to the Urban Institute, the institutions own 700,000 homes out of 15.1m, the ownership percentage is 4.6%. There are 4.6m homes in the private rented sector, of which around 60% are houses or bungalows according to the 2022-2023 English Housing Survey which is 2,760,000. 4.6% of 2,760,000 is 126,960. 126,960 * the average UK house price according to ONS of £285,000 is ~£36bn. Hence we adopt a range between the two values.
- Knight Frank (2023), UK Student Market Update Q3 2023, <u>Available here</u> (Accessed: 20 October 2024) contains estimates of the size of the PBSA sector in 2023.
- 7. Knight Frank (2023), UK Student Market Update Q3 2023, growth rate assumes a modest 2% rental growth per annum and the future pipeline materialising to rise to £104 bn by 2028. We make the assumption instead that the target ratio is to reach a ratio of 1.5 beds per 1 student, as suggested by Savills in March 2024. Taking the figure of 2.3m students enrolled in full-time studies, this would suggest a need for around 1,533,333 beds. The UK has a stock of 700,000 beds according to Knight Frank in January 2023 currently leaving a shortfall of 833,333 beds. If we assume 1,533,333 beds and take the average rent of the top ten cities across the UK according to Unipol's assessment of annual rents (see footnote 8), we arrive at £7745 as an average rent for 2023/2024. If we assume 70% net operating income, we obtain 7745 (0.3 * 7745) = 5421.5 * 1,533,333 = £83.129 bn. We then divide by a cap rate of 5% 166.259.197.190.
- 8. Unipol (2023), Student accommodation costs across 10 cities in the UK: cost pressures and their consequences in Purpose Built Student Accommodation, HEPI Report 166, Available here (Accessed: 12 November 2024).
- Savills (2023), UK Co-living 2023. Calculated by taking average unit price together with Savills' estimated current market size (operational and pipeline) of 25,021 units with 2022 estimates of average unit price in Savills, Spotlight: UK Co-living – a market poised for growth. We assume a cap rate of 4.5% and net operating income of about 45% of gross income (based on calculations in footnote 7).
- 10. Savills (2022), 'Spotlight: UK Co-living' (2022). Calculated by taking average unit price together with Savills' estimated addressable market size in a core market of 725,000, using an assumed cap rate of 4.5%. Savills has predicted an addressable market of 1.56m within the same paper but we have used the core market in our calculations since we believe Co-living would need additional support to reach the wider addressable market.
- BNP Paribas (2024), UK commercial living sector market size (2024 2029) cited in Housing Today (2024) 'Operational Living Sectors could more than double in value by 2029, says BNP Paribas', <u>Available here</u> (Accessed: 12 November 2024).
- 12. BNP Paribas (2024), UK commercial living sector market size (2024 2029).
- 13. Statista (2023), Market size of the hotel industry in the UK from 2013 to 2022 reports that the hotels sector market size was c. £23bn in 2020 before a correction post-pandemic, now having grown beyond pre-pandemic levels. Available here.
- 14. IPF (2022), The Size and Structure of the UK Property Market: End-2020 (2022), Available here (Accessed: 7 November 2024).
- IPF (2022), The Size and Structure of the UK Property Market: End-2020 (2022), Total office sector capital value c. £263bn, co-working c. 2%.
- 16. We assume that the UK will mirror US trends. Our figures suggest 6-8%, accounting for home working and additional limitations in regional markets. Comparisons of UK and US market saturation suggest similar pathways.
- 17. Cushman & Wakefield, Self Storage Annual Report (2023).
- 18. Assuming full maturity equates to 10 sq ft per head as corroborated by Safestore calculations (see: "Self storage: Why invest?" <u>Available here</u>).
- 19. Savills and Cold Chain Federation (2020), UK Cold Storage 2020, Available here (Accessed: 29 October 2024).

- 20. Savills and Cold Chain Federation (2020), UK Cold Storage Sector evidence states there is an average of 5 sq ft per household, with conservative capacity estimates rounding out at 8-12 sq ft per household. We have assumed 7 sq ft per household for full market saturation.
- 21. JLL (2024), Global Data Centre Outlook, Available here (Accessed: 7 November 2024).
- 22. Takes current London MW capacity from JLL Global Data Centre Outlook 2024 of 912MW, and multiplied by Morgan Stanley estimates of costs of around £23,086,961 per MW (converted from \$30m as at 7 November 2024), plus a yield of around 9% on development costs which anecdotally is around the acceptable threshold. London represents around 80% of the total UK market by capacity.
- 23. Morgan Stanley (2024) Powering the Growth of Generative AI, Morgan Stanley Australia. Available here (Accessed: 7 November 2024).
- 24. Assumes the same rate of growth as for 2023 2027 as predicted in the global market for data centres, drawn from the JLL Global Data Centre Outlook 2024 Outlook (see endnote 21) of 15.2% for colocation which we use as a proxy. We have assumed a pathway out to 2035 bearing in mind uncertainties around technological development. However, the data centre market is opaque and it is difficult at this point to predict the precise effect that Al will have on the data centres market.
- 25. Savills (2023) Spotlight: UK Flexible Offices, Available here (Accessed: 7 November).
- PwC and the Urban Land Institute (2023) Emerging Trends in Real Estate Europe 2024. London: PwC and the Urban Land Institute, p. 78. Available here (Accessed: 23 September 2024).
- Investment volumes taken from: CBRE (2024) UK Real Estate Investment Volumes Q3 2024, <u>Available here</u> (Accessed: 18
 November 2024). Percentage of investment in OPRE taken from: CBRE (2024) UK Operational Real Estate Figures Q4 2024, <u>Available here</u> (Accessed: 18 November 2024).
- 28. Carroll, A. (2024) "Eight investor opinions from the LP Perspectives 2024 Study", Infrastructure Investor, 1 February. Available here (Accessed: 3 October 2024).
- 29. Carroll, A. (2024) "Eight investor opinions from the LP Perspectives 2024 Study", Infrastructure Investor, 1 February. Available here (Accessed: 3 October 2024).
- 30. Pitchbook (September 2024), H1 2024 Global Real Estate Report, Available here (Accessed: 6 October 2024).
- 31. Villegas, Good and Ostroff (2024) Infrastructure Investors Capitalize on the Digital Revolution. 2024: Pitchbook, p. 18. Available here (Accessed: 6 October 2024).
- 32. Villegas, Good and Ostroff (2024) Infrastructure Investors Capitalize on the Digital Revolution. 2024: Pitchbook, p. 18. Available here (Accessed: 6 October 2024).
- 33. Stonepeak Invests €1.0 billion in Inspired Education Group | Stonepeak (2022). Available here (Accessed: 12 November 2024).
- 34. Neuberger Berman Private Markets, EQT and CPP Investments Form Consortium to Acquire Leading International Schools Organization Nord Anglia Education (2024). <u>Available here</u> (Accessed: 12 November 2024).
- 35. Reuters (2024) "Brookfield-led consortium to invest in GEMS Education", 18 June. Available here (Accessed: 12 November 2024).
- "Blackstone Closes Sale of Cloverleaf Cold Storage to Americold Realty Trust" (2019) Blackstone. <u>Available here</u> (Accessed: 12 November 2024).
- Daginawalla, H. (2024) Arcus announces the sale of AEIF2's interest in Constellation Cold Logistics, Constellation Cold Logistics.
 Available here (Accessed: 12 November 2024).
- 38. Lineage | Stonepeak (2021). Available here (Accessed: 12 November 2024).
- 39. Blackstone (2024) Blackstone Announces Agreement to Acquire AirTrunk in a A\$24B Transaction. Available here (Accessed: 8 November 2024).
- 40. "Portus Data Centers" (no date) Arcus. Available here (Accessed: 12 November 2024).
- 41. EdgeConneX (no date). Available here (Accessed: 12 November 2024).
- 42. "nLighten" (no date) I Squared. Available here (Accessed: 12 November 2024).
- 43. UK Sustainability Reporting Standards (2024) GOV.UK. Available here (Accessed: 30 September 2024).
- 44. Construction Output Price Indices (August 2024), Available here (Accessed: 28 October 2024).
- 45. Savills and Cold Chain Federation (2020), UK Cold Storage 2020, Available here (Accessed: 29 October 2024).
- 46. Glenigan, Al Demand Drives Data Centre Boom, Available here (Accessed: 26 October 2024).
- 47. Savills and Cold Chain Federation (2020), UK Cold Storage 2020, Available here (Accessed: 29 October 2024).



MACFARLANES

Macfarlanes LLP | 20 Cursitor Street London EC4A 1LT T +44 (0)20 7831 9222 | F +44 (0)20 7831 9607 DX 138 Chancery Lane | macfarlanes.com

This content is intended to provide general information about some recent and anticipated developments which may be of interest. It is not intended to be comprehensive nor to provide any specific legal or financial advice and should not be acted or relied upon as doing so. Professional advice appropriate to the specific situation should always be obtained. The reproduction of this document, in whole or in part, is prohibited. You are not permitted to make this document or the information contained herein available to any third parties without permission from Macfarlanes.

Macfarlanes LLP is a limited liability partnership registered in England with number OC334406. Its registered office and principal place of business are at 20 Cursitor Street, London EC4A 1LT. The firm is not authorised under the Financial Services and Markets Act 2000, but is able in certain circumstances to offer a limited range of investment services to clients because it is authorised and regulated by the Solicitors Regulation Authority, It can provide these investment services if they are an incidental part of the professional services it has been engaged to provide.

© Macfarlanes 2024 (1124) 13.014