# THE INCREASING IMPORTANCE OF THE ALTERNATE REAL ESTATE SECTORS

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## ABSTRACT

The alternate real estate sectors (including healthcare, data centres, self-storage and university student accommodation) have taken on increased importance in recent years with institutional investors, as they have sought to broaden their real estate sector exposure. Key real estate investment factors have driven this increased importance, including the changing global demographics, advances in technology and the impact of COVID-19. Importantly, this trend is expected to continue and have a major influence on real estate investment strategies by institutional investors going forward; globally, in Asia and in Malaysia. Several Malaysian real estate investors are already investing in these alternate real estate sectors, as well as a number of international real estate investors investing in these alternate real estate sectors in Malaysia. Using a range of alternate real estate sectors across several countries, this paper examines the drivers, performance, investment opportunities and future outlook of these alternate real estate sectors. Case studies in each alternate real estate sector are presented, including Malaysian case studies. The strategic real estate implications for institutional investors going forward are also assessed.

**Keywords:** *Alternate real estate sectors, healthcare, data centres, university student accommodation, institutional investors, real estate investment strategy, Malaysia*

## 1. INTRODUCTION

Institutional investors (eg: pension funds, insurance companies, sovereign wealth funds) have over $80 Trillion in assets. Real estate has been an important asset class for these institutional investors; typically accounting for 5-10% of their overall portfolios. Their real estate portfolios have largely focused on the prime office, retail and industrial real estate sectors to get high-quality real estate exposure in their portfolios. This has been achieved by a variety of real estate investment structures and channels such as direct real estate, non-listed real estate funds, joint ventures (JVs), club deals, separate accounts, fund of funds and Real Estate Investment Trusts (REITs). High quality real estate exposure has been provided in both the domestic and international real estate markets, using both non-listed and listed real estate products.

However, the alternate real estate sectors have taken on increased importance in recent years with institutional investors, as they have sought to broaden and future-proof their real estate sector exposure. Key real estate investment factors, including the changing global demographics, advances in technology, transitioning to a green economy and the impact of COVID-19 have driven this increased exposure to the alternate real estate sectors. In particular, COVID-19 highlighted significant risk issues for office and retail property relating to CBD office closures and reduced retail activity. Importantly, this trend of increased interest in the alternate real estate sectors is expected to continue and have a major influence on real estate investment strategies by institutional investors going forward. The alternate real estate sectors include healthcare, data centres, self-storage, student accommodation, farmland, Build-To-Rent (BTR) housing, co-living accommodation, car parking, childcare centres, cold storage, petrol stations and convenience retail. Often these drivers for the alternate real estate sectors are less cyclical and less strongly linked to the typical real estate drivers for the core real estate sectors which are more strongly linked to economic factors.

Using a range of alternate real estate sectors across several countries (eg: US, UK) and different timeframes, this paper examines the drivers, risks, investment performance, investment opportunities and the future outlook in a post-COVID-19 environment of these alternate real estate sectors. Case studies in each alternate real estate sector are presented, including drilling into specific Asian and Malaysian case studies to highlight the local Asian context and dynamics. The strategic real estate implications for institutional investors going forward are also assessed; particularly in a post-COVID-19 context.

In particular, the alternate real estate sectors of healthcare, data centres and university student accommodation are discussed in detail in this paper. Typical examples of these alternate real estate assets in current institutional investor portfolios across various major countries are shown in Figure 1 (healthcare), Figure 2 (data centres) and Figure 3 (university student accommodation). Whilst not being real estate, infrastructure is a real asset and will also be impacted with the transition to a green economy with an expanded focus on renewable energy assets (eg: wind farms) in institutional investor portfolios (see Figure 4).

## 2. PREVIOUS RESEARCH

Previous research on the alternate real estate sectors has been very limited. Part of this is due to data availability issues, where the earlier research focused on the alternate real estate sectors in REITs, rather than the analysis of the direct real estate in these portfolios. Excellent introductory papers on the features of the alternate real estate sectors are given by Investment Property Forum (IPF) (2015) and McIntosh et al (2017).

The earlier papers on the alternate real estate sectors largely focused on REIT portfolios in the US and Australia; including Newell and Peng (2006, 2008), Newell et al (2007) and Peng and Newell (2007). Data availability issues were a key driver for this initial REIT focus, with performance series for the direct alternate real estate sectors not available. Direct real estate performance series for these alternate real estate sectors have improved considerably in recent years; eg: MSCI direct real estate series.

More recently, Jufri Marzuki and Graeme Newell have done a number on papers on the analysis of direct alternate real estate in these portfolios; including healthcare real estate in the UK (Newell and Marzuki, 2018a), healthcare real estate in Australia (Marzuki and Newell, 2022) and UK university student accommodation (Newell and Marzuki, 2018b), as well as global infrastructure (Marzuki and Newell, 2021). Several recent papers for the alternate real estate sectors in REITs have also been done, including data centres (Marzuki and Newell, 2019), where direct real estate series for data centres are still not available. In each case, strong risk-adjusted performance and diversification benefits were evident; highlighting the role of these alternate real estate sectors in mixed-asset portfolios.

A number of recent papers have also considered specific aspects for university student accommodation (eg: external funding) (McCann et al, 2019), as well as the potential for investment in university student accommodation in Malaysia (Sulaiman et al, 2018). The academic research has been well supported by excellent real estate industry reports by CBRE, JLL and Colliers regarding the alternate real estate sectors, including healthcare, data centres and university student accommodation; often from an Asia perspective (eg: CBRE, 2021, 2022 a, b, c).

Importantly, this sees excellent real estate research opportunities to further explore issues for these alternate real estate sectors; particularly from an Asia and Malaysia investment perspective. The following sections will look at the alternate real estate sectors of healthcare, data centres and university student accommodation in detail.

### 2.1 Healthcare Real Estate

Healthcare real estate is a fundamental part of the social infrastructure needed in our society today; it is an essential part of the well-being of our communities. The underlying real estate assets to support this healthcare sector are important to facilitate high quality medical services. The context of COVID-19 globally has particularly reinforced the importance of these issues in the delivery of effective healthcare systems.

Strong social, real estate and investor perspectives to healthcare real estate internationally were clearly evident. Driven by the ageing population demographics in many countries and other healthcare sector-specific factors, this sees an important opportunity for institutional investors to be more actively involved in investing in healthcare real estate. Opportunities across the various healthcare sectors, including general practice, medical centres, hospitals, aged care homes, disability care centres  and specialist services facilities are evident.

Key drivers for healthcare real estate investment have been the ageing population demographics, impact of our modern lifestyles, lack of suitable healthcare accommodation, advances in medical technology, need for modern medical centres, long leases for professional healthcare operators, indexed rental income, increased expectations of baby boomers in healthcare services, highly regulated industry, and the role of both government and the private sector (see Newell and Marzuki, 2018a). The ongoing impact of COVID-19 has also been a key driver. Whilst there are both real estate-specific and healthcare industry risk factors that investors need to be aware of, the healthcare real estate sector provides an excellent opportunity for institutional investors to be involved in delivering both performance and community/social benefits. These risk factors include the lack of quality stock, reputational risk, operator risk, achieving sufficient scale in the investor's portfolio and the need for highly-skilled staff (see Newell and Marzuki, 2018a).

A number of major institutional investors are already involved in this space, including GIC (Government of Singapore Investment Corporation), EPF (Employees Provident Fund), CPPIB (Canada Pension Plan Investment Board) and ADIA (Abu Dhabi Investment Authority), as well as real estate investment managers also actively involved in the healthcare real estate space, in establishing both non-listed and listed real estate vehicles (eg: AXA, LaSalle, Blackstone, Primonial). Healthcare REITs have been established in nine countries, including the US, UK, Australia, France, Japan and Malaysia.

Using the MSCI direct healthcare real estate performance indices, the risk-adjusted performance and diversification benefits of healthcare real estate in the UK and Australia has been assessed (Newell and Marzuki, 2018a; Marzuki and Newell, 2022), as well as the authors updating these analyses recently.  In each case, the returns, risk, risk-adjusted returns, portfolio diversification benefits and mixed-asset portfolio role of healthcare real estate were clearly evident. Newell and Marzuki (2022) have also done these performance analyses for French healthcare real estate, with equivalent positive results; further validating the added-value of healthcare real estate in institutional investor portfolios.

Overall, healthcare real estate has strong real estate and social infrastructure drivers to see it as an attractive alternate real estate sector for institutional investors in their real estate portfolios. Clearly, these benefits will go well beyond COVID-19 to provide major ongoing benefits to our communities globally.

## 2.2 Data Centres

Data centres are an expanding alternate real estate sector, taking advantage of the growth in Information Technology (IT) -related technological requirements by business and communities today. The reliance on IT over the last ten years has driven the growth in technology-focused real estate assets, such as data centres. The advances in technology in recent years (eg: smart devices, home automation), cloud computing, e-retailing and media content delivery services present data storage challenges and opportunities. The relevance of data centres utilising modern, cloud-based technology makes it an attractive alternate real estate investment opportunity for institutional investors. Data centres are a specialised real estate asset, equipped with advanced networking, processing and data storage requirements.

The trend to Work From Home (WFH) during COVID-19 has seen an increased reliance on effective technology globally in both business and home environments. However, there is a clear risk of obsolescence due to rapidly changing technology advances that need to be factored into any data centre investment decisions by institutional investors, due to limited alternate use options for this space. Other operational risks include energy costs and high-power requirements.

Importantly, real estate investment managers have established both non-listed and listed real estate channels for institutional investors to access data centre investment opportunities. Major players in this space have set up data centre investment opportunities, often with significant multi-country portfolios to deliver geographic diversification benefits to their portfolios. For example, Keppel in Singapore have established a non-listed data centre fund comprising 20 data centres across 8 countries, with data centre assets of $3 Billion. Other players such as Mapletree and Brookfield are also involved in data centre investment management and development. Data centre REITs in several countries (e.g.: US, Australia, Singapore) have been active in establishing data centre portfolios. Often the data centre REIT sub-sector has seen significant data centre REITs (eg: US: Equinix (6$^{th}$ largest US REIT), Digital Realty (10$^{th}$ largest US REIT)), with over 90 data centres in each of their portfolios.

An analysis of the performance of US data centre REITs over 2016-2021 was recently performed (Marzuki and Newell, 2019). Strong metrics in returns, risk, risk-adjusted returns, portfolio diversification benefits and role in a mixed-asset portfolio were clearly evident, validating the role of data centre real estate as an attractive real estate sub-sector for institutional investors.

Overall, data centres as an alternate real estate sector have strong drivers from advances in technology, and the potential to add-value in an institutional investor's real estate portfolio.

## 2.3 University Student Accommodation

The significant growth in the international university student education market has facilitated the growth in the university student accommodation sector globally. The main countries in this international student cohort are China, India, South Korea, Canada and Saudi Arabia, with the

US, UK and Australia having significant international university student cohorts. The resulting demand for high-quality student accommodation (for both international and domestic university students) is clearly evident.

In addition to this international student demand, drivers in the university student accommodation space include supply/demand imbalance, regulatory changes, reduced role by universities in providing student accommodation, long-term leases for operators, attractive yields, low risk, steady income stream, resilience against market downturn, geographically diversified portfolios, increased role of regional markets versus main cities, professional operator platforms, low vacancy rates, fewer structural challenges than other real estate sectors, and the need for international market "brand" by operators (Newell and Marzuki, 2018b). All of these factors have contributed to a high level of investor demand for university student accommodation. While there are clearly risk factors involved, such as the impact of technology to see an increased role for online education versus on-campus study, the biggest risk factor recently has been the impact of COVID-19 on international student numbers where international travel to the student study locations was not possible. The impact of reduced international student numbers impacted most markets which are only now in the process of recovering from this COVID-19 impact.

Leading real estate investment managers have acquired substantial student accommodation portfolios (often as purpose-built student accommodation), and setting these up via both non-listed and listed real estate vehicles; including Blackstone, Mapletree, AXA, Allianz, Brookfield and M&G in the non-listed real estate space. Student accommodation REITs in the US (4) and UK (2) have also been established. A high level of institutional investor demand for investing in student accommodation was also evident, with leading players including GIC (Government of Singapore Investment Corporation) and CPPIB (Canada Pension Plan Investment Board). Multi-country student accommodation portfolios were established, with strong links to professional operators. Importantly, investors see university student accommodation as different to residential real estate in their portfolios; hence student accommodation is not seen as a replacement for residential real estate exposure.

Newell and Marzuki (2018b) analysed UK direct university student accommodation performance over 2011-2021 using the CBRE university student accommodation index. Strong performance was clearly evident in the metrics of returns, risk, risk-adjusted returns, portfolio diversification benefits and the role in a mixed-asset portfolio, validating the potential for university student accommodation as a real estate sector for institutional investors. Overall, university student accommodation has been a well-supported alternate real estate sector for institutional investor exposure to this important sector.

## 3. ALTERNATE REAL ESTATE SECTORS IN ASIA

How do these alternate real estate sectors fit into an Asian and Malaysian real estate context?

Excellent examples in the healthcare real estate sector include the Al-Aqar REIT in Malaysia and the Nippon Healthcare REIT in Japan; see Figures 5 and 6 respectively for examples of properties in their healthcare real estate portfolios. The Al-Aqar REIT has been established since 2006, including 23 properties valued at RM$1.7 Billion in the healthcare areas of hospitals (17), wellness/health centres (3), healthcare education facilities (2) and aged care/retirement villages (1).

Similarly in the data centres space, Keppel in Singapore has been active in developing data centre portfolios in both the REIT and non-listed real estate channels with multi-country portfolios; see Figure 7. Countries in Asia (6) (eg: Singapore, China, Hong Kong, Malaysia, Indonesia and Australia) and Europe (5) (eg: UK, Netherlands, Ireland, Germany and Italy) comprise the countries in this portfolio of 26 data centres in the Keppel portfolio via the Keppel DC REIT, and Alpha Data Centre Fund and KDC II Fund; seeing Keppel have a multi-billion dollar data centres portfolio.

The university student accommodation is a new sector in Asia. However, in Malaysia, the non-listed Alpha REIT have considerable experience (since 2017) in the area of investments in schools, with Figure 8 giving examples of schools in Malaysia in the Alpha fund's portfolio. The Alpha REIT has three Malaysian schools in their portfolio (Kuala Lumpur, Damansara, Kajung) using a long-term sale-and-leaseback model; as well as being Shariah-compliant.

Other examples of institutional investors and real estate investment managers being involved in Asia in the alternate real estate space include:

- Employees Provident Fund (EPF) investing in Australian healthcare real estate via Dexus
- Keppel investing in Australian healthcare real estate via Australian Unity
- GIC investing in Malaysian healthcare real estate via Sunway Healthcare
- Keppel establishing additional non-listed data centre funds
- Kumpulan Wang Persaraan (KWAP), Mapletree, GIC and Temasek investing in university student accommodation;

in most cases, this alternate real estate exposure has been via the developed real estate markets in US, UK and Australia.

Clearly, there is scope for expanding the level of institutional investment in this alternate real estate space in Asia, as these real estate markets further develop. Both local institutional investors as well as international institutional investors have opportunities in this space.

## 4. REAL ESTATE IMPLICATIONS

High-quality office, retail and industrial real estate are the long-standing real estate sectors in institutional investor portfolios. They will clearly remain as the dominant real estate sectors in institutional investor portfolios due to their attractive long-term investment characteristics. However, there are also clear real estate, technology and social drivers for the inclusion of the alternate real estate sectors in these significant real estate portfolios to compliment the benefits of these traditional real estate sectors, as well as future-proofing these portfolios. This is more than just being based on prior performance analysis; it clearly factors in increasingly important issues such as ESG (Environment, Social, Governance) considerations and a changing social context that major investors are demanding. ESG considerations will take on increased importance for institutional investors, both in terms of their investment mandates, member expectations regarding the green economy and social issues, and the need for ESG considerations to be factored into future capital allocations to real estate fund managers with a strong ESG mandate. A structural change in real estate investment opportunities has become evident, as institutional investors seek to future-proof their real estate portfolios and respond to these challenges and emerge from the COVID-19 environment into the "new normal" for real estate investment.

Opportunities will also arise in the real estate space around emerging professional careers, as in-house investor requirements will see the need for highly-skilled professional teams in these alternate real estate assets that go beyond the skills needed in the traditional real estate sectors. Many of the leading real estate advisory players (eg: CBRE, JLL) are already establishing professional teams in this increasingly important real estate space. Real estate investment managers will also need to establish effective vehicles for alternate real estate sector exposure; both in the listed and non-listed spaces to satisfy this institutional investor demand.

## 5. FUTURE OUTLOOK

This paper has clearly identified the opportunities for institutional investors to embrace the alternate real estate sectors as key elements in their real estate portfolios; in addition to the traditional real estate sectors of office, retail and industrial real estate. The dynamics of these alternate real estate sectors as shown by the performance analysis, as well as increasing institutional investor demand and increasing requirements for social commitment in investor portfolios has reinforced the stature of these alternate real estate sectors. The robustness of these real estate investment opportunities is further reinforced by these analyses being across countries (eg: US, UK, Australia), across sectors and over different time periods. In a post-COVID-19 context, these alternate real estate sectors will take on increased global importance for institutional investors, driven by real estate factors and social factors.

Significant real estate, technology and social drivers are also supporting these alternate real estate sectors going forward. Investors will also need to be aware of the risk factors involved and the operational issues in these new alternate real estate sectors, which are often unique and go beyond just real estate issues.

While this paper has focused on the alternate real estate sectors of healthcare, data centre and university student accommodation, opportunities will exist for this to expand to other alternate real estate sectors as these markets mature. Build-To-Rent (BTR) housing is an excellent example of an alternate real estate sector that will take on increased importance going forward; particularly as the issue of housing affordability impacts many markets and institutional investors take on mandates to support this important social issue. ESG considerations and the role of green infrastructure (eg: renewable energy) will also become increasingly important as economies transition to being greener economies.

Specifically, there are implications for Malaysia regarding the adoption of these alternate real estate sectors that go well beyond COVID-19. This will see significant implications for the social infrastructure in Malaysia. An excellent example of this concerns healthcare real estate in Malaysia, particularly concerning medical facilities and aged care facilities (eg: nursing homes). Growth in the aged care facilities in Malaysia will be needed over the next ten years, where the traditional model of caring for elderly parents by their children will be under pressure to be sustainable in the future. A key driver in this space will be the percentage of Malaysians over 65 years that will require increased healthcare. This over-65 years age group in Malaysia will increase from only 4.1% of the population in 2001, to 7.6% in 2021, to 13.1% in 2041 and to 21.9% in 2061; seeing a tripling of the levels from today over the next 40 years. This not unique to Malaysia, and is evident in many other Asian countries such as Japan, China, Singapore, South Korea, Taiwan and India (www.populationpyramid.net ). With governments unable to fully fund this growth, an increased focus on institutional investors supporting the necessary health system infrastructure will be required.

Importantly, these alternate real estate sectors will provide major opportunities in Asia as these markets develop and investor demand increases. They will also provide important career opportunities for real estate professionals in Asia with strong practical and investment skills in these alternate real estate sectors; both with local players and international players. It is an exciting real estate space going forward; with significant investment and real estate career opportunities.

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Dexus: Sydney, Australia

Vital Healthcare: Sydney, Australia

Primary Health: Birkenhead, UK

Medic X: Abergele, UK

**Figure 1:** Examples of healthcare properties in investor portfolios
Source: Authors' compilation

Equinix: Silicon Valley, US

Equinix: Sydney, Australia

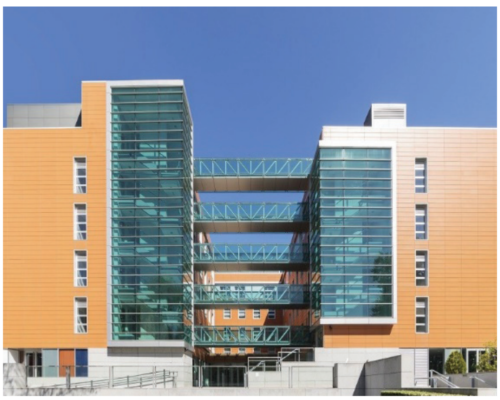
Digital Realty: Erskine Park, Australia

Digital Realty: Singapore

**Figure 2:** Examples of data centres in investor portfolios
Source: Authors' compilation

Victus: Bristol, UK

Victus: Bristol, UK



GSA: Madrid, Spain

UniLodge: Melbourne, Australia

**Figure 3:** Examples of university student accommodation in investor portfolios
Source: Authors' compilation

OMERS: power plant: Canada

Carlyle: oil and gas facility: Spain

Global Infrastructure Partners:
wind farm: Germany

Vinci: airport: UK

**Figure 4:** Examples of infrastructure in investor portfolios
Source: Authors' compilation


KPJ Tawakkal Specialist Hospital, KL Malaysia


KPJ Penang Specialist Hospital, Penang Malaysia

KPJ Johor Specialist Hospital, Johore Malaysia

**Figure 5:** Examples of healthcare properties in the Al-Aqar REIT portfolio
Source: Authors' compilation

La'nassica Arakogawa, Nagoya Japan

La'nassica Arakogawa, Nagoya Japan

**Figure 6:** Examples of healthcare properties in the Nippon Healthcare REIT portfolio
Source: Authors' compilation


Keppel DC Singapore 2, Singapore

Intellicentre 2, Australia

Gore Hill Data Center, Sydney Australia

**Figure 7:** Examples of data centres in the Keppel fund portfolio
Source: Authors' compilation


The International School @ Parkcity, KL Malaysia


Sri KDU International School, Selangor Malaysia

**Figure 8:** Examples of schools in the Alpha fund portfolio
Source: Authors' compilation