

Part 2: US Student Housing Thought Piece – Deep Dive into the Industry Dynamics & Fundamentals



ODYSSEY

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Executive Summary

Odyssey is an asset management firm that is focused on seeking out attractive investment opportunities in the private markets. We invest in thematic opportunities in sectors we believe represent good value and are anticipated to achieve superior risk adjusted returns.

We often employ value add strategies such as refurbishment, reorganisation and repositioning, which increase the capital appreciation and cash flow generation over time. Where strategically advantageous, we partner with local execution partners who have long and successful track records in the niche sectors and strategies we are most interested in. One such sector that we have been building a position in is Student Housing in the United States.

We invest in thematic opportunities within real estate, with a further focus on specific sectors that we believe represent good value in the investment cycle, that are anticipated to achieve superior risk adjusted returns. Where suitable we may employ such value-add strategies as repositioning the asset to further enhance yield and long term growth from the asset. We partner with local execution partners who have long and successful track records in the niche sectors and strategies we are most interested in.

The US Student Housing sector offers a unique and exciting opportunity to participate in one of the fastest growing sub-sectors of the US real estate market. Sector specific tailwinds, such as highest global ratio for tertiary enrolments and lack of reliance on overseas students, helps it stand out versus other markets globally. We believe this makes the sector incredibly resilient in the backdrop of global uncertainty.

Unlike the United Kingdom or Australia, US students have remained on campus and combined with a projected positive rebound from COVID-19, US Universities are receiving record levels of enrolment for September 2021 and into 2022. This is helping drive the continual need for new and updated student accommodation at campuses around the country, particularly as universities allocate capital to non-housing facilities such as classrooms and sports centres.

To further illustrate our research to date, we have completed on this sector and the opportunities we are seeing in the market, we have compiled this thought piece series for our client's interest, it is in 3 parts:

Part 1: Student Housing Introduction & the sector at a glance

Part 2: Deep Dive into the Industry Dynamics & Fundamentals

Part 3: Case Study & Value Proposition – Potential REIT Listing

In this segment we are introducing the specific industry dynamics and investment fundamentals to build out our investment case. We believe that these dynamics are sticky given the characteristics of real estate. Hence, the analysis of the industry dynamics and deeper fundamentals makes us confident in our bullish stance on US Student Housing sector.

Part 2: Industry Dynamics and Investment Fundamentals

To provide a birds-eye view of the sector and the current attractive dynamics, this thought piece focuses on the demand and supply drivers for Student Housing in the US. We will focus on the key investment thesis and highlight the market opportunity we have identified presently in this sector. We further dive deeper into the fundamentals taking into account forward-looking operating metrics such as pre-leasing and valuation comparisons.

Demand Analysis

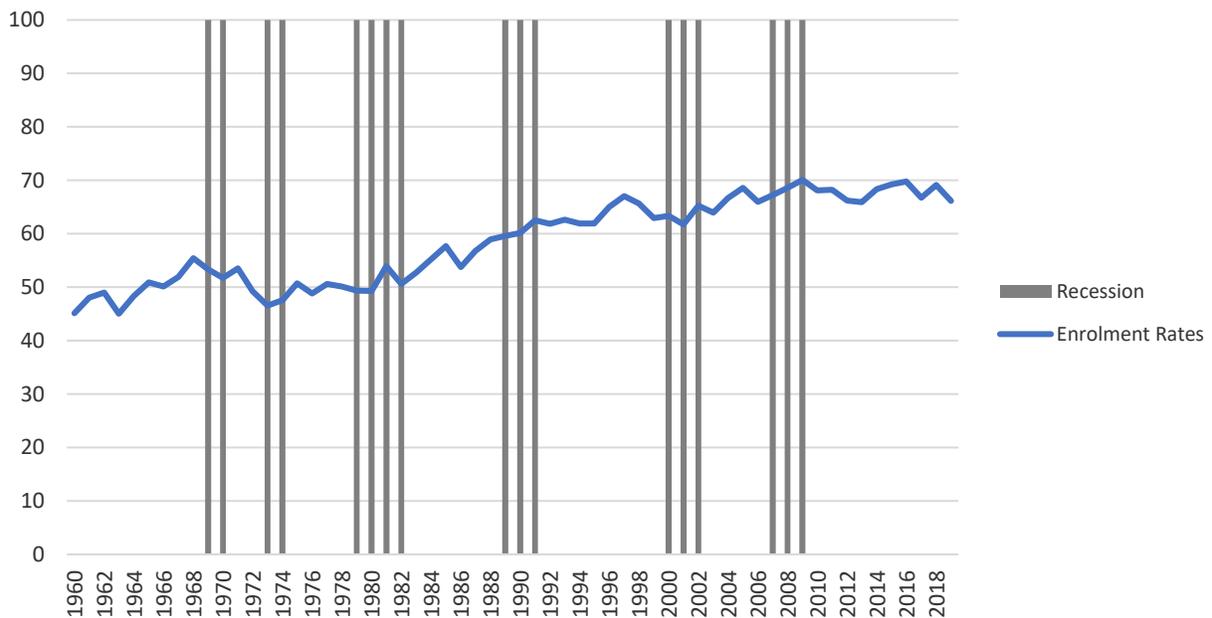
We believe that there will be high demand for Student Housing based on the following three key factors:

- Stable & Growing enrolment rates
- High Domestic Student Population
- High demand for quality Student Housing accommodation

Stable & Growing Enrolment Rates

The US University system is a **US\$600M** per year industry which is rapidly growing. Despite the increasing acceptance of online education, Wiley's surveys have found that a college degree is still valued within the work force which translates to a stable, growing enrolment rate. Long term trends indicate that annual college enrolment rates have remained strong and withstood the different economic cycles as shown in Figure 10 which highlights recession and enrolment rates, we believe this trend will continue for the foreseeable future.

Figure 10: Enrolment Rates and Recession

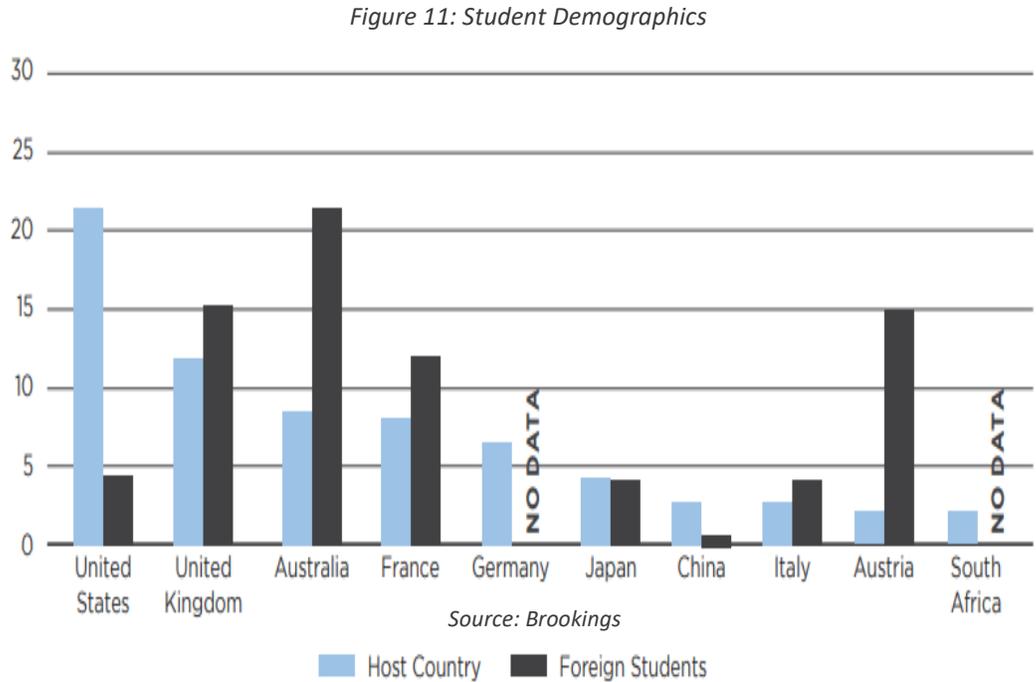


Source: NCES, FRED

We have also identified that the enrolments rates are counter-cyclical in nature, increasing during and after recessionary periods. Our research has also shown that the labour market suffers from a lack of high quality skilled and educated labour, whereby possible employers are demanding more from prospective hires. This demand among with the shifting business world is expected to continue. As enrolment rates and recessions are positively correlated, we see the current COVID crisis as providing a strong tailwind for the demand for Student Housing accommodation for the next 3 to 5 years.

Attractive Demographics

Figure 11 provides a comparison of the demand by domestic and international students for each respective country that is focused on attracting foreign students. This chart further supports the investment thesis of focusing on the US as the US domestic students dominate the international students by a wide margin, so much so that the international students only consist of 5.5% of the foreign



students attending US tertiary education. Though we are confident in US's ability to recover, we are still cautious of the impact that the return of air mobility may have, though we project that this will not have a significant impact given the expectation is in-class education will resume. It is our view that the strong organic enrolment rate helps hedge against the risk of over-reliance on international students, as is the case for such student housing markets in Australia, United Kingdom & Austria.

Pent-up & Spill-over Demand

Students are keen and craving to return to campus for more social interaction amidst the long quarantine and lockdown in US. As such, we believe there is pent-up demand for on-campus activities and in turn PBSA. PBSA have historically been attractive to students for the community as well as the amenities & convenience.

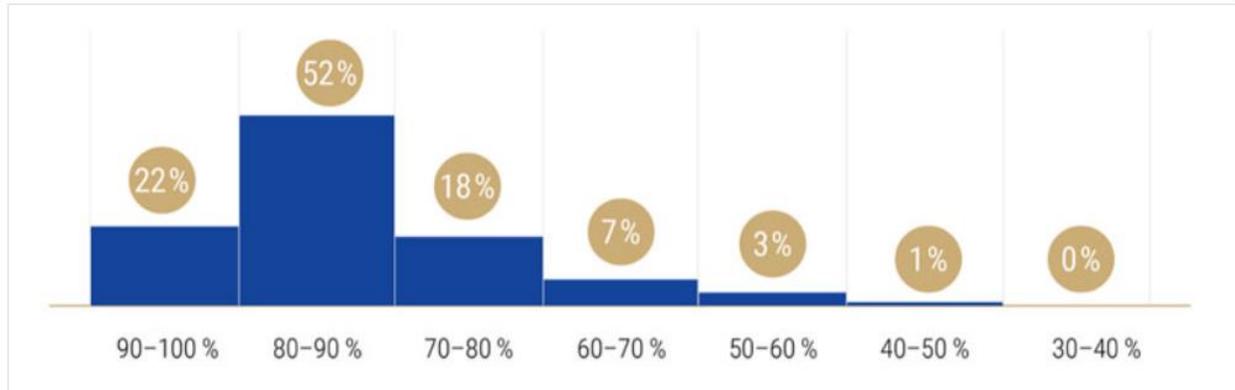
We also realise that the current campus facilities are unable to accommodate to this level of demand and we will likely see a spill-over demand. According to CBRE, on-campus facilities for the top 175 universities are only able to accommodate approximately **21.5%** of enrolled students. The pandemic woes for the number of available beds does not end here. We are also wary of the social distancing requirements that many universities are enforcing where a survey carried out by Association of College and University Housing Officers demonstrated that 70% of the universities are planning to reduce bed counts. We estimate the cut in bed amounts to be as high as **10% to 20%**, creating further opportunities for higher occupancies in off-campus student housing.

Furthermore, we observe that student preferences are shifting and placing importance on modern and quality amenities. This in turn is seeing students select **new or refurbished assets** as opposed to aging on-campus accommodation which traditionally have poor amenities and less updates to their facilities. A survey carried out by Knight Frank notes that quality amenities are important factors that students desire, citing reasons such as Wi-Fi, quality fit out and recreational space as some of their reasons for selecting purpose-built student accommodation over University-owned accommodation. This reinforces our investment case that there will be a high probability of spill-over demand and an uptick in yield as students are willing to pay a premium for better amenities. In turn, the right assets will enjoy higher cash flow margins and asset desirability from the student market.

Market Demand Forecast

Biden’s plan to fully vaccinate the US population in the coming months bodes well for the reopening of schools and colleges and this in turn will drive up demand of purpose-built student accommodation. It is our view that demand rise on the back of the continued vaccination of the US population and re-opening plans. This is further supported by the local student sentiment in Figure 12. This chart shows the results of a survey of US students view regarding the occupancy rates for the Fall Semester in 2022. It is noted that **74%** believed that the occupancy will be 80% and above.

Figure 12: Occupancy Rate Sentiments - Students



Source: BONARD

Supply Analysis

The current Student Housing Market is facing a shortage, underpinned by the following factors:

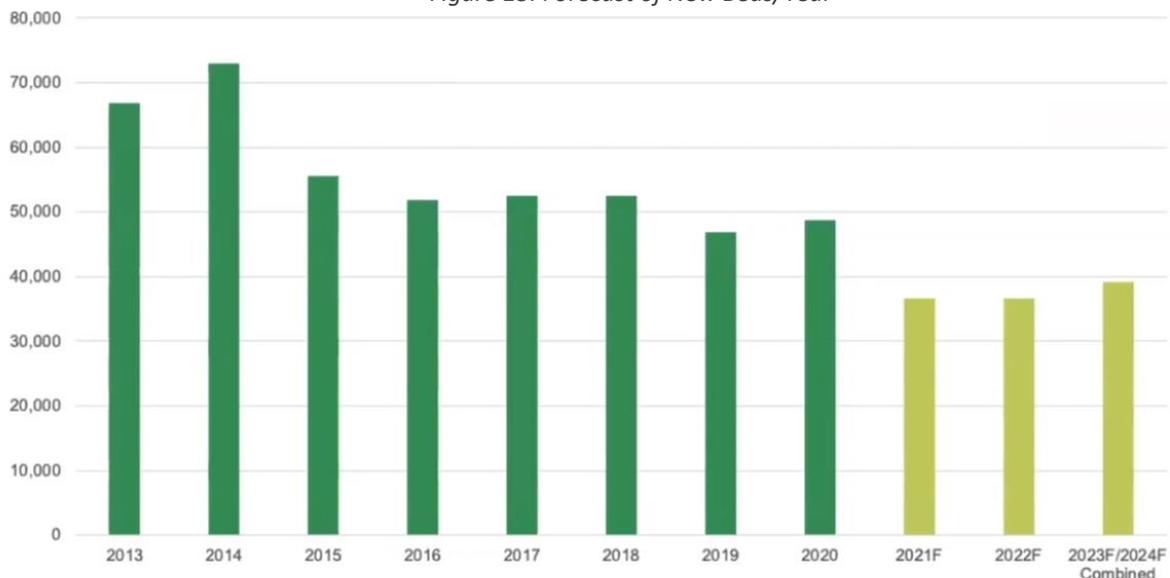
- a) Traditional credit lenders were not as willing to lend for development and construction projects due to the pandemic, strangling the supply of new beds.
- b) Universities are under pressure to allocate more capital to core education resources and slowed down the rate of construction of accommodation.

These factors created a shortage in the current market and evidently, rental growth has been increasing.

Dried up Credit for Construction

Fear and uncertainty tightened up creditor’s pockets and constructions projects were delayed during the pandemic. CBRE & CollegeHouse estimates a **20%** fall in pipeline of beds in 2021 and only seeing a supply increase in 2023 in Figure 13.

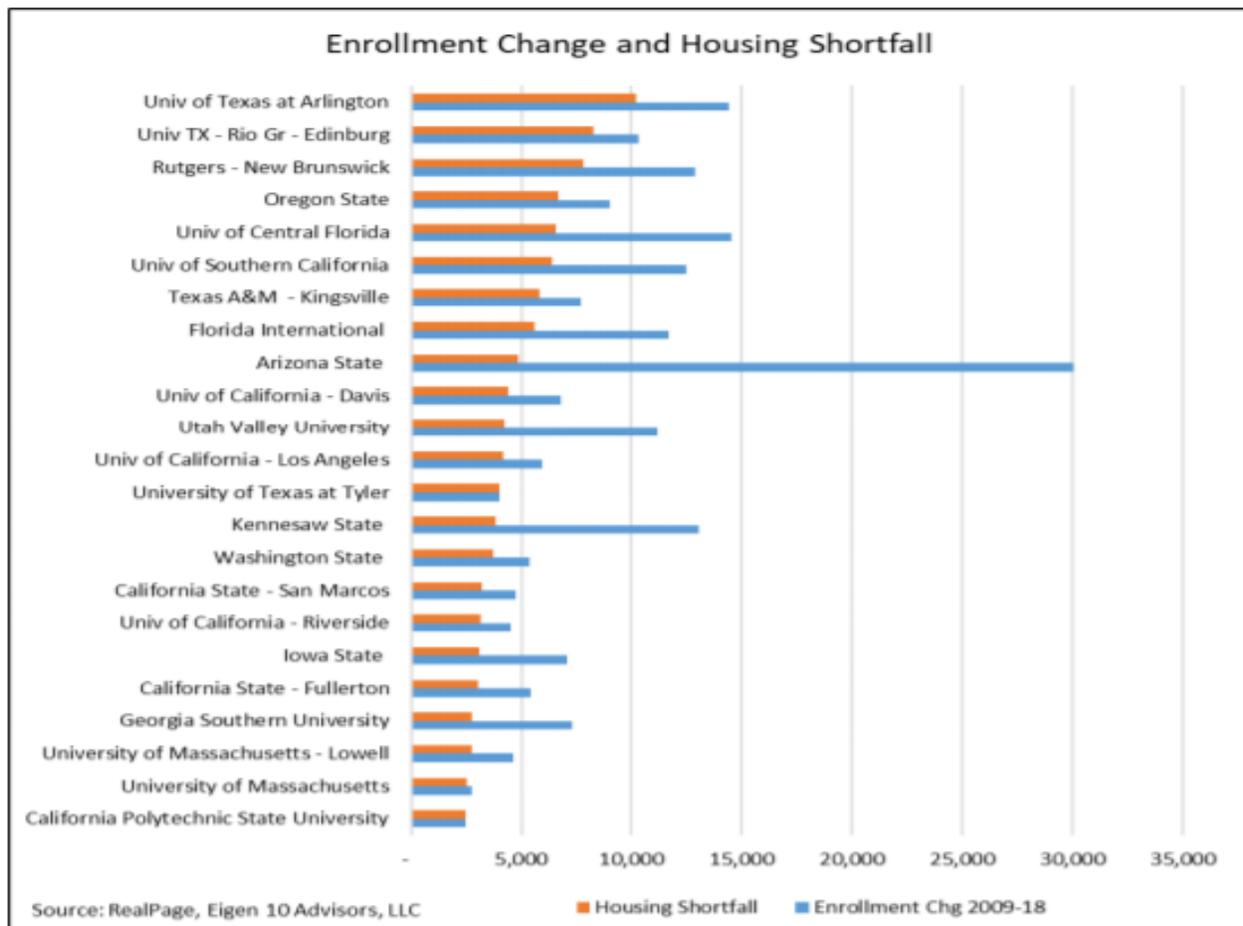
Figure 13: Forecast of New Beds/Year



CBRE has also noted that the debt capital markets are more keen to finance acquisition rather than development /construction in their 2020 overview of the US Student Housing Market. We believe that this is favourable for our strategy looking to acquire assets at slightly cheaper going-in rates through leverage.

The **delayed construction and scarce credit** further aggravated the shortage of beds that was present before the pandemic. Figure 14 summarises where there is a shortfall of beds in the major Tier-1 US Universities as surveyed by NMHC. Compounding both factors of under-construction and liquidity for construction, the shortage problem for the sector will be aggravated with very little beds added

Figure 14: Shortfall in Tier-1 Universities surveyed



Source: NMHC

Insufficient Growth in University-owned Housing

Universities have been under pressure to allocate more funds towards education and have since reduced their bed counts built since 2011, declining

from 32,000 to 15,700 per year. Combined with the ever-increasing enrolment rates and the demand for student accommodation, they are heavily reliant on the private market to provide capital to construct new beds to alleviate the shortage issues.

Industry Dynamics Wrap-up

Summarising the factors mentioned above, it is a sector with very high demand, but the supply is lagging behind significantly. This is a significant market opportunity given that operators that know this will likely factor this into the rent, driving up yields for these assets. Furthermore, the inflationary pressure currently makes hard asset backed yield more enticing. Hence, we believe that Student Housing is one of the best investment sectors now.

Deep Dive into the Fundamentals

The previous section uncovered the attractive broad industry dynamics. We dive deeper into the investment fundamentals of Student Housing using comparative valuation and forward-looking operational metrics which may up-value the assets when it returns to pre-pandemic levels.

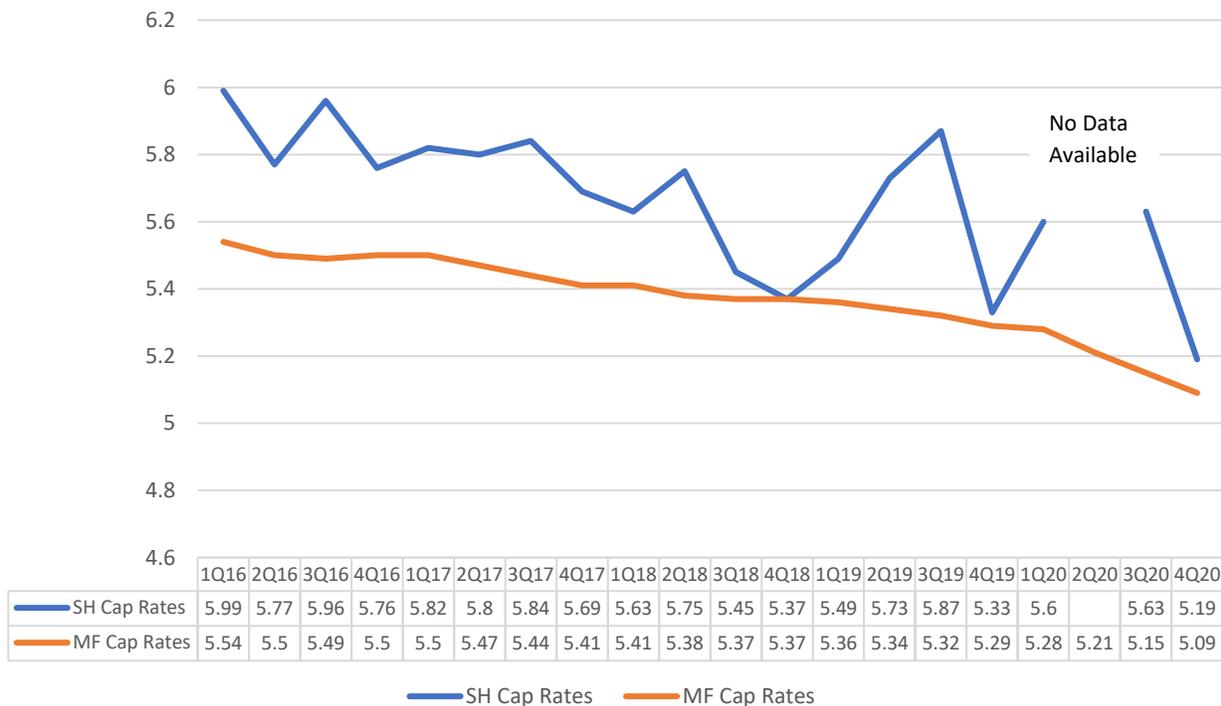
Comparables and Valuation

Capitalisation rates (cap rates) is one of the most widely used metric to evaluate a real estate investment. The cap rate gives a picture of the market value of an asset, the **lower** the cap rate is, the **higher** the market value. According to CBRE data in Figure 15, Student Housing cap rates have compressed by **13bps** from 2019 to 2020 and we can see that spread is tightening between the compared asset class and Student Housing assets. The consistent and large compression across the years is due to the increased institutional attention and the continued strength of the sector. We believe that it is just a matter of time before it dips below multi-family cap rates with its strong industry dynamics within the real estate sector.

Portfolio scale and location is also important to maximise investor's returns as 4Q20 saw a large compression in part due to sale of large portfolios and good asset locations.

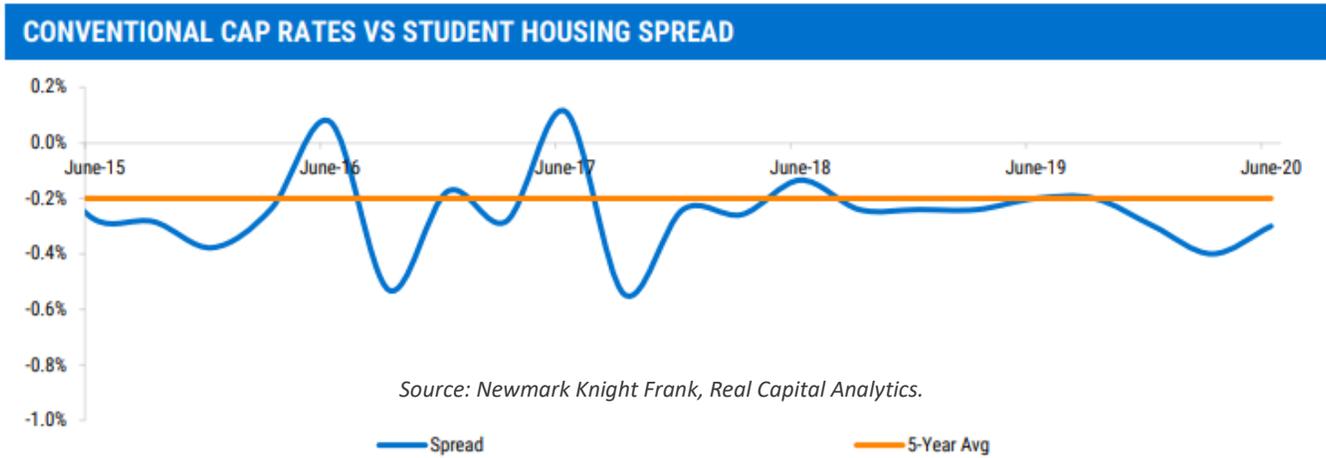
The asset has also been stabilised, which is underpinned by the cap rate spread and it has been fairly stable in the past years. From Figure 16, the cap rates spread have largely traded in the 5-year average. This gives assurance to investors that the asset continues to be an attractive, low risk & a fairly valued asset.

Figure 15: Cap Rates vs Multi-Family Properties



Source: CBRE

Figure 16: Historical Cap Rate Spread



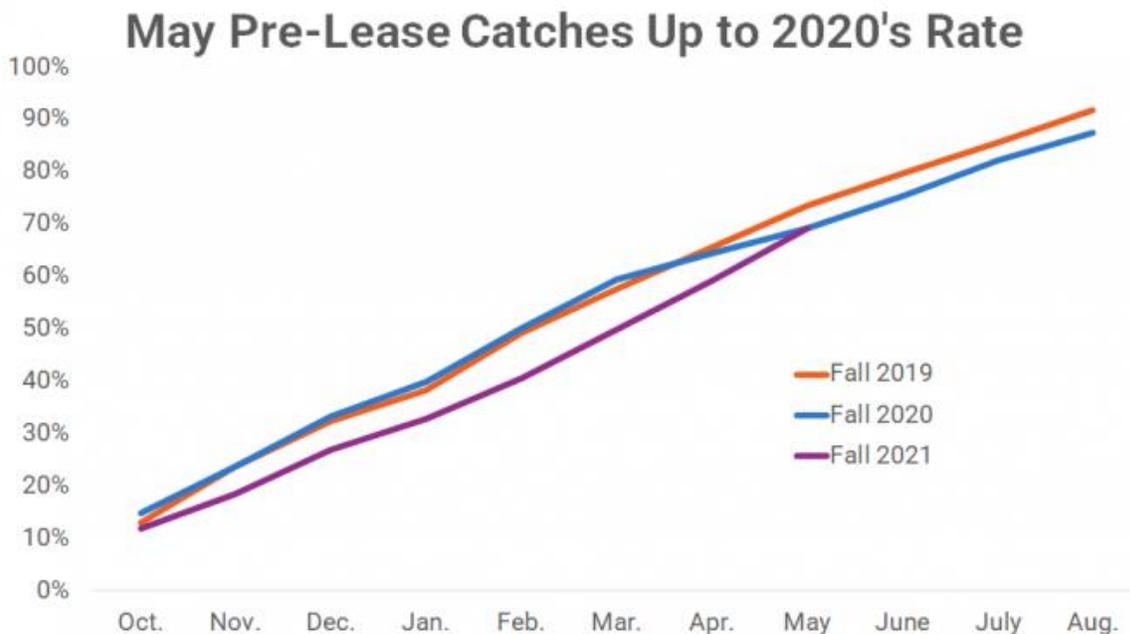
We believe that the sector’s fundamentals and increased attention by institutional investors has made the overall market more bullish on the forward prospects of Student Housing, CBRE gathered opinions from real estate leaders and **39%** of the investors felt that cap rate will compress further for student housing and only **24%** felt that cap rates will increase. The sector’s valuation is attractive all things considered and looks to appreciate with further support from rising inflation.

Pre-Leasing Rates

Pre-leasing rates for the fall semester have been ticking up for the fall semester and we are optimistic that the sector will achieve close to full occupancy for majority of the accommodation. US schools are reopening and in support of our thesis of pent-up demand, Figure 17 showed that pre-leasing rates have largely returned to 2020’s rate. With 3 months left in the pre-leasing phase, RealPage expects the pre-leasing rates to accelerate and return to pre-pandemic levels.

We believe the strong pre-leasing rates reflects the student’s return to on-campus learning which bodes well for the cash-flow of the assets and eventually the higher market value when exiting the market. We believe this is the opportunity for us to invest to capture this tailwind.

Figure 17: 2021 Pre-leasing Rate



Source: RealPage

Growing Rental Income and High Collection Level

Underpinned by the delayed construction of new beds, Student Housing as an industry, is projected by CBRE to increase its rent by **1.64%-2.14%** in the next 2 years while mature sectors like multi-family will see declines in rental income, owing to favourable demand supply factors. Furthermore, Student Housing rental collection rates have been favourable, never

falling below **95%** in FY 2020 despite the pandemic while multi-family apartments have seen a significant number of rent delinquency. It aligns with consistent cap rates compression for its stable, high cash flow margins.

Figure 18: Entrance to PBSA



Source: Student Quarters

Summary of the Fundamentals

US Student Housing has been a resilient sector with consistent cap rate compression over the past 5 years. The consistency of the cap rates as shown in Figure 16 gives us a lot of confidence in the stability of the sector and we feel that it is at that stage where it is becoming more acceptable as an institutional asset class.

The prospect of further cap rate compression rises from the deep understanding of the operating metrics that drives the stability of NOI in the assets. Rental collection and pre-leasing rates have been returning to pre-pandemic highs and looks to increase further, not many real estate sectors can say this. Even in the residential sector, some of its operating metrics have outperformed the traditionally strong and resilient multi-family apartments.

The capital appreciation of the asset stems from the fact that its collection rates are top-class amongst its peers and the rental rates is structurally driven to increase from the shortage of beds. Putting both together, we are getting a stable, high recurring cash flow asset, translating to very good yields and prospects of good capital appreciation.

The relative strength of its operating metrics further supports our argument that cap rates will continue to compress and will remain stable in the coming years.

Our Investment Thesis

This thought piece has outlined the attractive broad industry dynamics as well explored the investment fundamentals. We have summarised the key reasons for gaining exposure to the US Student Housing sector below:

- **Higher Yield:** The industry currently faces a shortage in beds and our forecasts show a steady rise in rental growth.
- **Risk Management:** Given the high domestic student tenants, this dramatically reduces the reliance on international students. Offering assets with modern facilities will help increase student demand.
- **Attractive Going-in Valuation:** Cap rates and spreads are stable and low, trading at around a 40bps premium/discount to multi-family properties, making student housing one of the best in Us real estate.
- **Supportive Demand Drivers:** Our argument of the pent-up demand is substantiated by the rising pre-leasing rates. With the on-going recovery, we believe occupancy rates will return to pre-pandemic highs.
- The US has **one of the highest** vaccination rates globally, with the return of school **imminent** and **probable**.

We believe that the attractiveness of the sector is underpinned by the above factors and the markets view on forward valuation metrics and cap rates further supports this.

With the above in mind, we project that the US Student Housing sector will see an increase in yield, attributing to a rise in rental growth and higher occupancies from the shortages. Furthermore, hard asset backed yield hedges against *expected* inflation, performing well against other asset classes in periods of high *expected* inflation. With the CPI and PPI exceeding estimates, the thesis of reflation has been stronger. Hence, we believe this is the right time to invest into US Student Housing for a **stable, high margin cashflow** asset and **significant** capital appreciation with very minimal idiosyncratic risk.

In summary, this thought piece seeks to evaluate dynamics and fundamentals to build a strong investment case and rationale for the sector. We believe that the COVID-19 pandemic **has not changed** the fundamentals and drivers of the sector, which makes this one of the **most attractive** US real estate sectors at this juncture. In the next and final part of the thought piece, we will introduce a case study to introduce our value proposition of a REIT listing potential and the attractiveness of this sector via a case study to substantiate the arguments made here.

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