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Asia Pacific
Education
Knowledge is
Power

Keppel Capital
watch

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Executive Summary

Private education is a dynamic and growing sector in Asia Pacific (APAC), driven by the rising demand for high-quality English-medium education.

The following factors underpin and support the demand for private education, across the pre-school to the university segments: (1) increased levels of urbanisation; (2) an expanding middle class and rising wealth; (3) rising female labour force participation; (4) growth of the modern services sector; and (5) supportive government policies. Real estate requirements for more schools will therefore also increase to accommodate rising enrolments.

Given the resilience of the education industry, private education real estate investment could be an attractive and sustainable investment, and defensive as an asset class. Certain segments of the private education sector provide long-term revenue visibility and stable cash flows, as completion of studies and courses takes several years. The high barriers to entry of the private education sector helps provide downside protection to revenues and contribute to the positive demand-supply dynamics in the sector, underpinning revenue growth.

Using various assumptions, we estimate that the private education real estate market in APAC¹ will grow by almost 4 times from US\$39 billion in 2016 to US\$157 billion in 2031. China is the largest market in APAC and will account for more than 60% of the estimated real estate value in 2031.

Besides China, other focus markets in APAC include Vietnam, Thailand, Australia and Singapore. These markets were identified based on a combination of macroeconomic and sectoral indicators, coupled with our team's insights on deal opportunities and regulatory considerations.

Although the size of the private education real estate market in APAC in 2031 is only about 25% of the current combined CBD Grade A office stock in Hong Kong, Singapore, Shanghai and Tokyo², there is potential for future cap rate compression given the early investment cycle and the fundamentals and scalability of the sector. This could therefore be an opportune time to invest in education-related real estate. As Benjamin Franklin once said, "An investment in knowledge pays the best interest".

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¹ Comprising the K-12 and higher education segments

² Source: JLL REIS, 3Q2019 data

Overview

The private education sector in APAC is a dynamic and growing sector, driven by the rising demand for high-quality English-medium education. The market has been transformed from a small group of international schools designed for wealthy expatriates into a modern and more inclusive part of the global education system, serving students from a wider range of backgrounds. In this report, we look at the demand drivers for the private education sector and share our thoughts on why this is a burgeoning investment asset class.

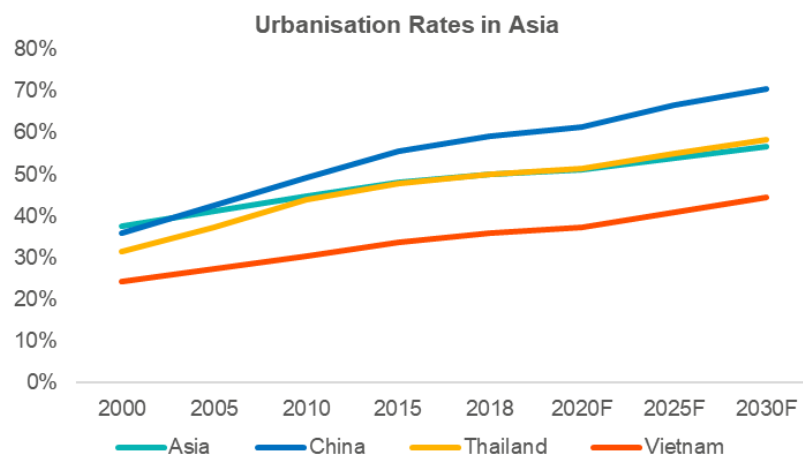
Demand drivers for private education

There are various economic, social and political trends in APAC that support the demand for private education, ranging from the pre-school to university segments. Real estate requirements for schools and campuses will therefore also increase to accommodate rising enrolments. These demand drivers are elaborated further below.

Increase in urbanisation levels

The pace of urbanisation across emerging Asian markets is expected to continue to pick up over the next few years. Asia's urbanisation rate is projected to rise from about 50% currently to 57% in 2030 as an additional 500 million people move into cities³ (Figure 1). The largest shift will be in China, with a 180 million increase in the urban population by 2030. There will be more concentrated demand for private education in the metropolitan areas with a larger proportion of population living in urban areas. As the metropolitan areas develop, expatriate communities will also usually build up, supporting demand for private schools.

Figure 1: China, Thailand and Vietnam to see the largest increase in urbanisation rates in the region by 2030



Source: UN World Urbanisation Prospects 2018

Expanding middle class and rising wealth

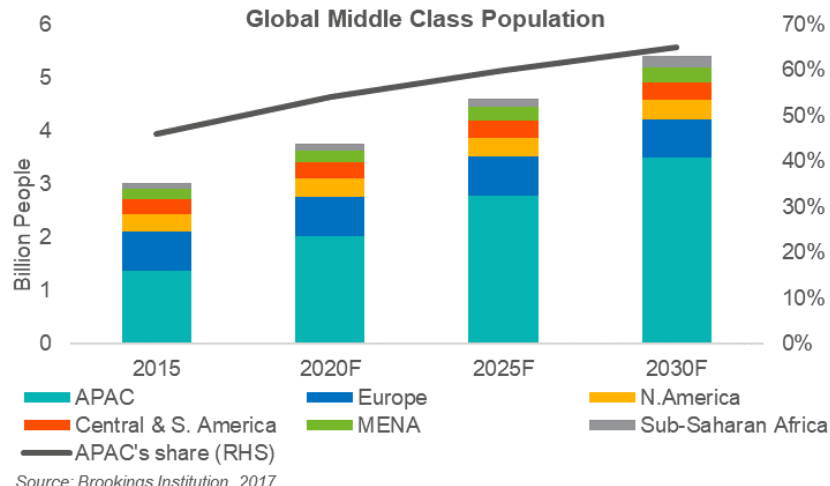
More than half of the world's middle class will be in APAC by 2020⁴, underpinning demand for better-quality education (Figure 2). A report by Knight Frank also shows that the number of millionaires in Asia will increase

³ 2018 UN World Urbanisation Prospects

⁴ Brookings Institution, The Unprecedented Expansion of the Global Middle Class, 2017

at a compound annual growth rate (CAGR) of 21% between 2018 and 2023 to 6.8 million. The improvement in household wealth provides parents with greater financial capacity to send their children to private schools.

Figure 2: APAC will account for more than half the global middle class population from 2020 onwards



In Asia, as parents seek to give their children a leg up in their formative years, they send their children to private childcare centres and pre-schools. There is also an increasing demand for K-12 (i.e. kindergarten to 12th Grade) private and international schools that offer bilingual programmes. This is partly driven by the competition for places at reputable universities around the world, with parents and students finding that they require more than just good grades from local state schools to gain admission.

Rising female labour force participation

An increasing number of females are joining the formal workforce due to greater access to education and changing cultural and social norms in APAC. The ongoing shift in the region's economic structure towards services industries, which tend to be more labour-intensive in nature, has also contributed to the increase in female labour force participation rates.

The number of females participating in the workforce in APAC has grown over the last five years and is expected to continue to increase by another 1.1 million per year from 2018 till 2030⁵. With more women in the workforce, demand for child-minding services will increase, leading to demand for spaces in pre-schools and childcare centres. Many believe there are advantages in preparing their children early for formal education by attending pre-schools and childcare centres where the focus could be on "learn as you play" and building up social skills.

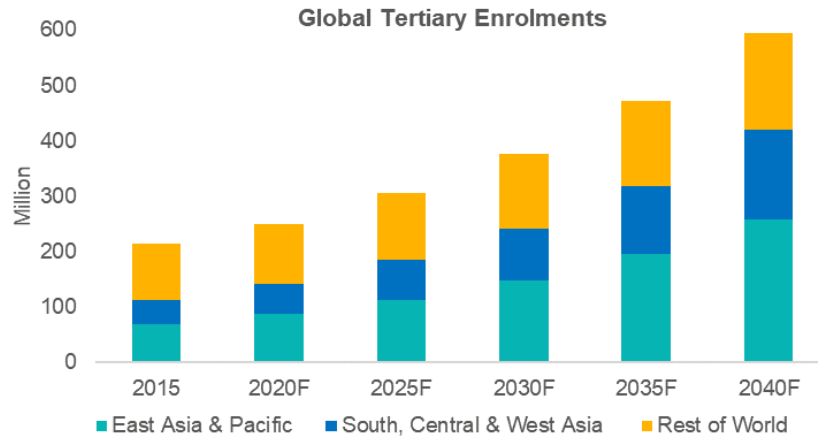
Growth of the modern services sector

As APAC transforms from a manufacturing-led economy towards a services-oriented economy, the services sector could eventually account for a greater share of the economy. The development and growth of modern services

⁵ International Labour Organization estimates

sectors such as accounting, financial services, legal services and technology will lift demand for workers with professional diplomas and degrees such as accountancy, computing and law, thereby generating demand for tertiary education (Figure 3).

Figure 3: Asia to account for two-thirds of global tertiary enrolments by 2030



Source: RMIT University, *Massification of Higher Education Revisited*, June 2018

Supportive government policies

Changes in government policies have facilitated the growth of the private education sector in APAC. Recognising the importance of early childhood education, governments have injected more funds or allocated more of their national budgets towards this sector. For instance, the South Korean government introduced a national curriculum which provides subsidies to families with children aged 3 to 5 years old regardless of their household income⁶.

The Australian government has similarly provided childcare subsidies to families, where the subsidy support for long day care childcare had increased at a CAGR of 7.2% between 2010 and 2018⁷. The Australian government introduced a new Child Care Subsidy programme from July 2018 and the subsidies expended under the new programme have also increased 1.6% over the year as at 2Q2019. These have boosted demand for professional third-party childcare services.

Elsewhere, a loosening of attendance restrictions at international schools have resulted in higher local enrolments. According to ISC Research, around 80% of students attending international schools in Asia are children of local parents. Thailand removed the attendance restrictions in 1992, giving Thai parents the freedom to choose where their children were educated. Bangkok is now one of the top five cities in the world for quality international education⁸.

Similarly, the Malaysian government removed the enrolment limits for local students. In South Korea, the government has relaxed the enrolment limits for special economic zones, and there are no restrictions on the enrolment of

⁶ Korea Ministry of Education

⁷ Australia Department of Education and Training

⁸ ISC Research

South Korean students at schools in Jeju Global Education City. In China, both local and foreign students can attend bilingual schools that offer an emphasis on English or another foreign language.

The Vietnamese government implemented Decree 86 in August 2018 which raised the limit of local enrolments in international schools to 49.9%, up from the previous limits of 10% at the primary level and 20% at the secondary and high school levels. Local enrolments at international schools in Vietnam rose from 46% of the international school population in 2015 to 72% in 2018⁹.

Governments in the region are also encouraging greater private sector participation in the tertiary education segment to address constraints in public funding and teaching capacity, with demand anticipated to increase further over the longer term. This includes the establishment of additional post-graduate institutions, which would be required to train instructional staff at both K-12 and tertiary levels.

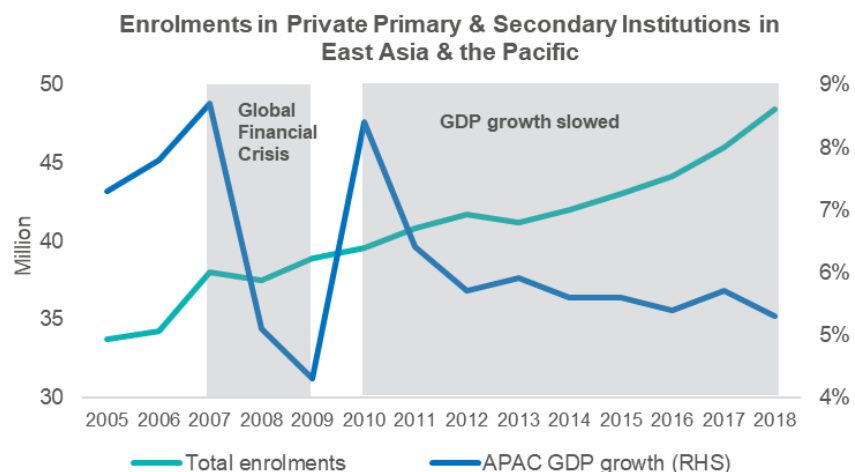
Economics of investing in education real estate

We think the favourable attributes of the private education sector make private education real estate investment an attractive and sustainable investment asset class. These attributes include the following:

Resilient and defensive asset class

Education tends to be a resilient industry as it is usually a non-discretionary expenditure item while the unemployed may seek to retrain and upgrade themselves during economic downturns. The private education sector is therefore almost recession-resistant, and this could be especially relevant given current economic uncertainties. As an example, total enrolments in private primary and secondary institutions continued to increase during periods of economic slowdowns (Figure 4).

Figure 4: Private primary and secondary enrolments in East Asia and Pacific continued to increase during economic downturns

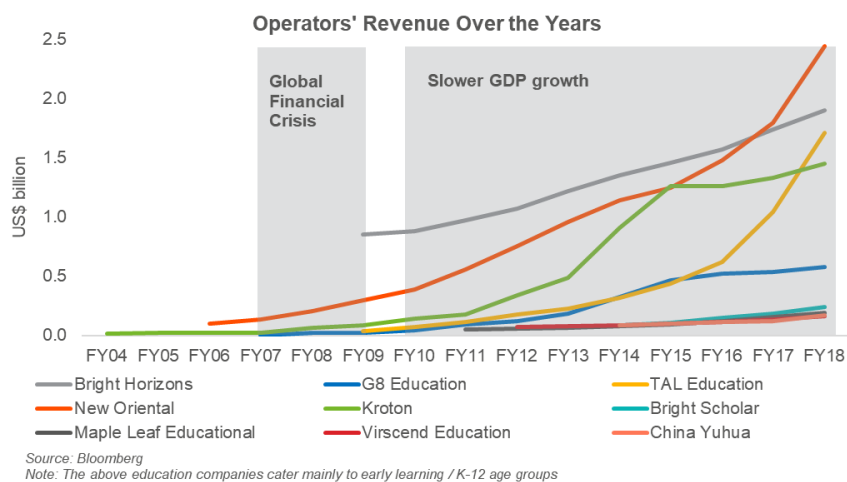


Source: UNESCO, IMF

⁹ Forbes.com, International Schools are Broadening their Appeal and Breaking Down Barriers, 30 Jan 2019

The long leases and reputable tenants add to the defensive attributes of the asset class. An analysis of listed education companies shows that revenues continued to increase even when economic growth slowed, while revenues had risen at a CAGR ranging from ~9.5% to 53% since listing (Figure 5).

Figure 5: Revenues of listed education companies continued to increase even as economic growth slowed



Long-term revenue visibility and stable cash flows

Certain segments of the private education sector, such as the K-12 and university segments, where completion of studies and courses takes several years, offer long-term revenue. Most education programmes require fees to be paid in advance, providing schools with the liquidity and reducing the need for additional equity to cover maintenance and future capital expenditure. Private education operators are therefore able to predict their future returns and growth accordingly and these underpin the positive and stable cash flows that could be generated.

High barriers to entry

Barriers to entry include high capital requirements in terms of land and infrastructure costs, access to sites and high incidence of regulatory oversight that tends to favour more experienced operators. Branding and reputation are also significant barriers to entry. These barriers to entry will help prevent the private education sector from overcrowding, provide downside protection to revenues and underpin growth in private education revenues.

Positive demand-supply dynamics

The high barriers to entry limit the supply of private education, while demand is expected to continue to grow strongly. Over the next ten years up to 2029, the number of K-12 students attending international schools in East Asia and Southeast Asia are projected to increase at a CAGR of 7.4% and 5.6% respectively¹⁰. The supply of private education is further limited as existing schools are mostly restricted from adding more space beyond their existing maximum capacity. In addition, it takes time to build a school, leading to a shortage of supply of premium schools in certain markets.

¹⁰ ISC Research

Within Southeast Asia, the growing demand for quality education cannot be met by the overburdened public systems¹¹. The private sector has stepped in to meet this demand, with private school enrolments outperforming public enrolments across most of the region.

APAC's education real estate market

Estimating the market size

There is currently no comprehensive and publicly available estimate on the size of the education real estate market in APAC. This is because education real estate is at the early stage of the investment cycle and can be varied, ranging from converted properties to build-to-suit campuses.

To estimate the investible universe of education real estate, we generally used the direct capitalization method, making a few assumptions. Using the K-12 segment as an example, the direct capitalization method was used to estimate the valuation of the education real estate for the key markets, assuming an average occupancy cost of 20% on projected tuition fee incomes. Next, we ascribed an "investibility ratio" to the total market valuation, based on our judgement of the stages of maturity of the following: (i) the private education market; (ii) the real estate market in general; and (iii) the general level of economic development.

For the higher education market in Australia, we used the data on the total value of property, plant and equipment as listed by the Department of Education and Training for all the higher education providers and similarly ascribed an investibility ratio. The investibility ratio assumptions for the various markets are summarized in Figure 6.

Figure 6: Summary of assumed investibility ratios

Investibility ratios	2016	2021F	2031F
K-12			
China	50%	50%	60%
HK & Japan	75%	75%	75%
SEA (ex-Singapore)	50%	50%	50%
Singapore	75%	75%	75%
Oceania	75%	75%	75%
Private higher education			
China	50%	50%	60%
ASEAN	50%	50%	50%
Australia	25%	25%	25%

Source: KepCap Research's estimates

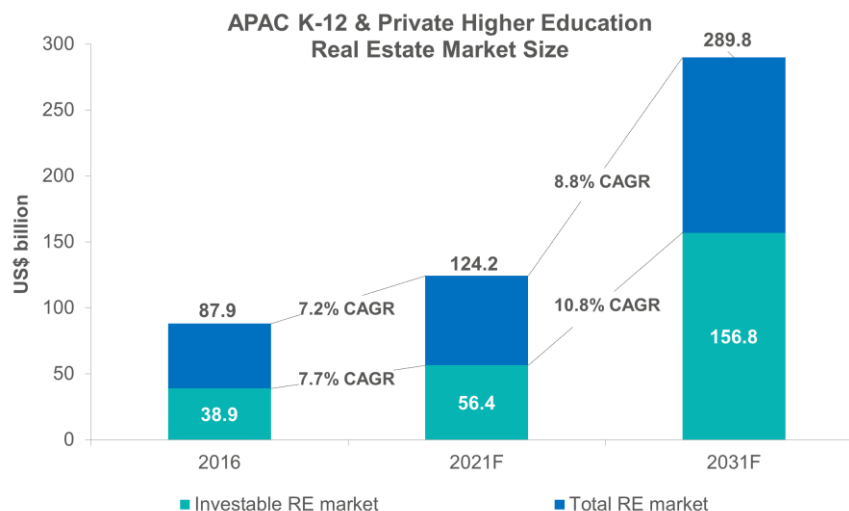
Based on the above methodology, we estimate that the investible real estate market for the K-12 and universities segments in APAC¹² could increase almost 4 times from US\$39 billion in 2016 to US\$157 billion in 2031 (Figure 7). China is the largest market in APAC and will account for more than 60% of the estimated real estate value in 2031.

¹¹ EY Parthenon

¹² Due to data availability, the analysis of the education real estate market size in APAC covers only the K-12 and higher education segments

We also expect the investible market to grow faster than the entire real estate market, mainly as the private education sector matures along with the various economies, as well as the fact that newly developed assets are more likely to be purpose-built and hence of higher quality.

Figure 7: Investible education real estate to increase almost 4x by 2031



Note: K-12 markets include China, HK, Japan, Southeast Asia and Oceania; Higher education markets include China, ASEAN and Australia
Source: KepCap Research estimates

We acknowledge that this is an underestimate of the APAC private education real estate market, as this estimate does not cover other private education segments such as private local non-international schools, private childcare, tutoring schools and English language training. However, we believe that based on the available data, this estimate provides some clarity on the scalability and growth prospects of the private education real estate market.

Focus markets

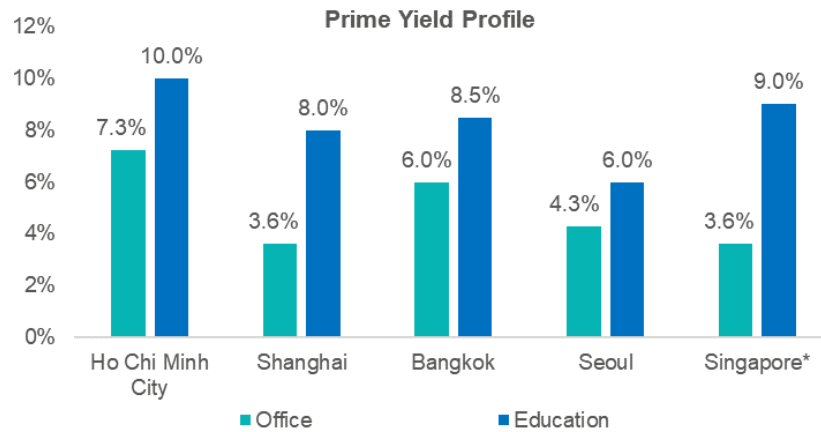
To identify the focus markets within APAC in the K-12 sector, we considered other macroeconomic and sectoral indicators that could impact private education demand and supply. These indicators include, amongst others: forecasted GDP growth; projected growth in K-12 population; the country's attractiveness to expatriates as well as projected growth in student enrolments versus supply and projected growth in tuition fee income.

Coupled with insights on deal opportunities and regulatory considerations from our investment team, the focus markets within APAC have been identified as China, Vietnam, Thailand, Australia and Singapore. In the higher education sector, China, Australia and Singapore stand out with established institutions and higher enrolment of students in these countries.

Conclusion

Besides the fundamentals and scalability of the private education real estate market in APAC, that the market is still in its early investment cycle is another reason for its attractiveness as an alternative asset class. There is potential for future cap rate compression as private education real estate enjoys a significant yield premium over other traditional real estate asset classes (Figure 8).

Figure 8: Education real estate offers attractive yield spread over other traditional real estate asset classes



* Note: short land tenure for education asset in Singapore
Source: Colliers, JLL, KC estimates

The performance of the private education real estate market could be similar to that of the student housing sector, where cap rates have compressed over the last few years. This could therefore be an opportune time to invest in education-related real estate. As Benjamin Franklin once said, “An investment in knowledge pays the best interest”.

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