



Spotlight Emerging demographic trends

July 2018



Spotlight Emerging demographic trends



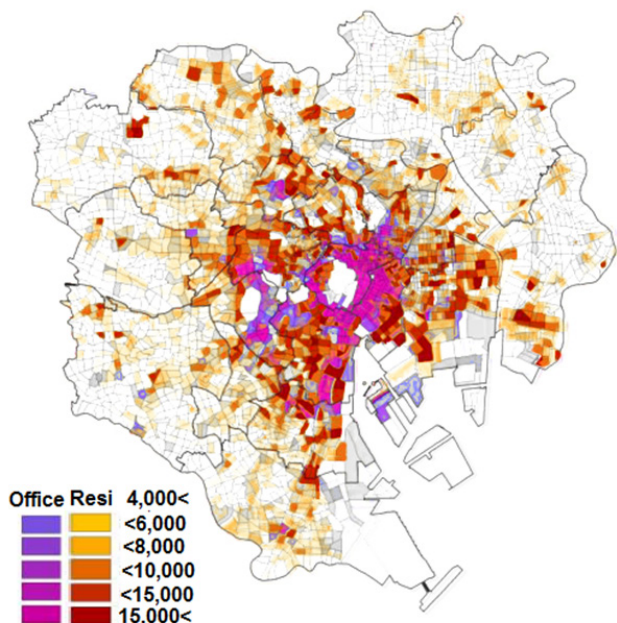
“Urbanisation continues to drive and shape the redevelopment of Tokyo. By responding creatively to emerging demographic trends, Tokyo could become a more attractive, integrated capital. As housing prices continue to rise in central Tokyo, however, demand for peripheral affordable housing options could strengthen. Demographic trends such as increases in the foreign population, both workforce and students, and the elderly population also present opportunities for the real estate market in Japan.”

Introduction

Since the turn of the century, Tokyo has seen a population increase of about 1.7 million. This is analogous to the entire population of a mid-sized city, such as Barcelona or Philadelphia, migrating to Tokyo. Growth is especially strong in the central five

wards (C5W), as the population has grown about 40% over the past two decades. One driver for the population inflow is increasing demand for convenient locations close to work. In central Tokyo, the daytime population greatly exceeds the nighttime population, as nearly 3 million

MAP 1
Office and multi-family building density (sq m/ha) in Tokyo (2016)



Source: Tokyo Metropolitan Government, Savills Research & Consultancy

SUMMARY

- Since 2000, Tokyo Prefecture’s population has grown by about 1.7 million and it is projected to continue to increase for the foreseeable future.
- Places of working and living have been converging with the resident population increasing in central Tokyo. The popularity of mixed-use developments is likely to increase as commercial areas must meet demand from both workers and residents.
- The population could increase in surrounding cities such as the Outer Tokyo¹ area if demand for affordable housing strengthens.
- Increasing foreign population offsets Japanese depopulation and complements the domestic workforce. The IT sector could be a magnet for relatively high-paid expatriates in the future, as the finance sector once was.
- Limited acquisition opportunities and positive demand underpinned by new and established demographic trends are increasing the popularity of alternative assets such as senior housing and student housing.

¹ In this report, “Outer Tokyo” refers to the 26 cities in the Tama area.

people commute from neighbouring prefectures. Comparing the results of the national census in 2010 and 2015, however, the population difference between day and night shrank, suggesting more people decided to move closer to workplaces.

Improving corporate performance is underpinning demand for housing in central Tokyo. In 2017, Tokyo’s labour force increased by 165,000, tightening the unemployment rate to 2.9%. Japanese corporations’ operating profit margins have improved from 3.5% in FY2012 to about 6.0% in FY2017, closing in on that of Germany. Ongoing labour reform could further improve corporate productivity, which should result in increases in profitability and, ultimately, wage growth.

→ Urbanisation should expand investment opportunities in Tokyo's real estate market. The reduced distance between places of work and living indicates that people's commercial activities and money are likely to be spent in more concentrated areas. With increasing population, commercial areas must meet demand from both workers and residents, which may contribute to the popularity of mixed-use facilities. For example, Mitsui Fudosan's Tokyo Midtown Hibiya is a high-specification office tower with lifestyle retail zones that realises the company's "mixed-use urban development" concept. Many new development projects also incorporate hotels to meet growing tourism demand, making the city more attractive to global travellers. Relaxing of floor area ratio requirements also encourages large mixed-use projects.

Fortunately, Tokyo already has a strong mixed-use character as commercial and residential buildings are built close together and expansive transportation networks connect a wide range of submarkets. Consolidation of small and middle-sized buildings and the creation of community spaces should allow for increases in population density while alleviating stress from crowding. As Tokyo goes through a major redevelopment phase, the capital could become a more workable, liveable, and hospitable place. Landmark events such as the 2020 Olympics, development of integrated resorts, and the Linear Chuo Shinkansen bullet train's opening should support Tokyo's transformation and population dynamics in the long term.

There is, on the other hand, strong demand for affordable housing options. Rising prices of new homes in central Tokyo have made second-hand condominiums attractive. As the aging population causes increases in vacant homes, investment opportunities may exist for those who are able to repurpose underutilised properties. Furthermore, if home prices in central Tokyo continue to rise, the current urbanisation trend could partially reverse and demand for homes in surrounding cities may strengthen.

Additionally, the increasing foreign population is offsetting decreases in the Japanese population and bolstering urbanisation. A growing number of inbound tourists is also

creating positive dynamics for select regional cities. Alternative asset types such as senior housing and student housing are attracting investment interest as other demographic changes support positive demand stories.

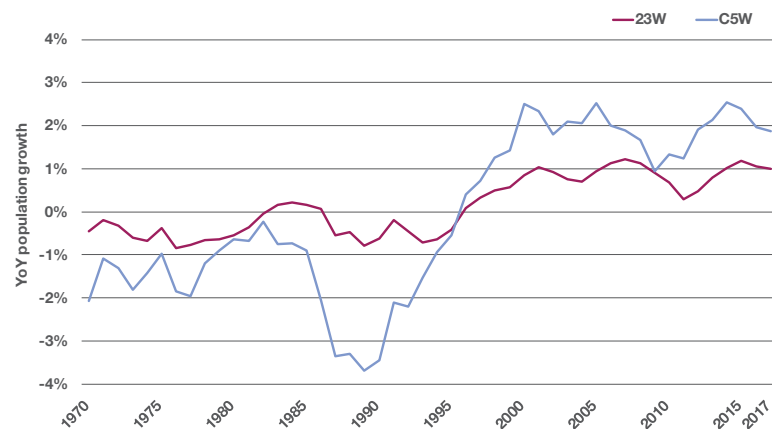
Urbanisation in Tokyo

During the asset bubble of the mid '80s and early '90s, the population of Tokyo, especially in the C5W, declined as speculative office development spread widely and eroded residential areas. The population began to

rebound in the late '90s after the collapse of the asset bubble made living in Tokyo affordable and large condominium projects became popular among developers. Although growth temporarily slowed in the late 2000s, annual growth has recovered to about 2% in the C5W and 1% in the 23W in recent years.

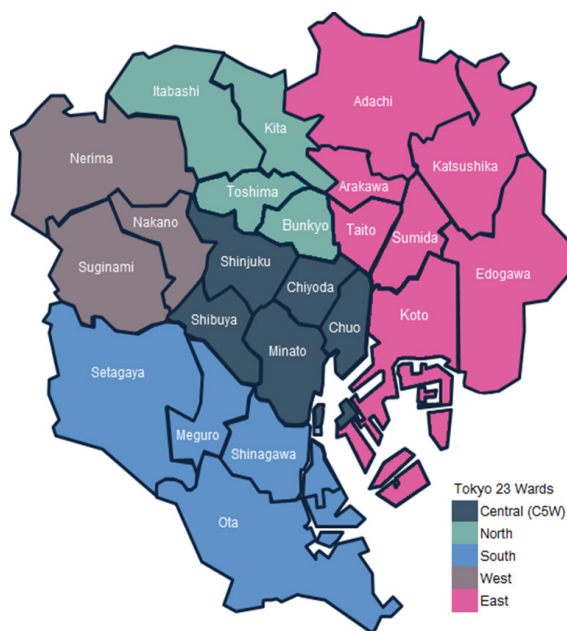
For the past 15 years, the East submarket has seen the largest population increase, adding about 122,000 persons every five years.

GRAPH 1 **Population growth in Tokyo 23W and C5W, 1970 – 2017**



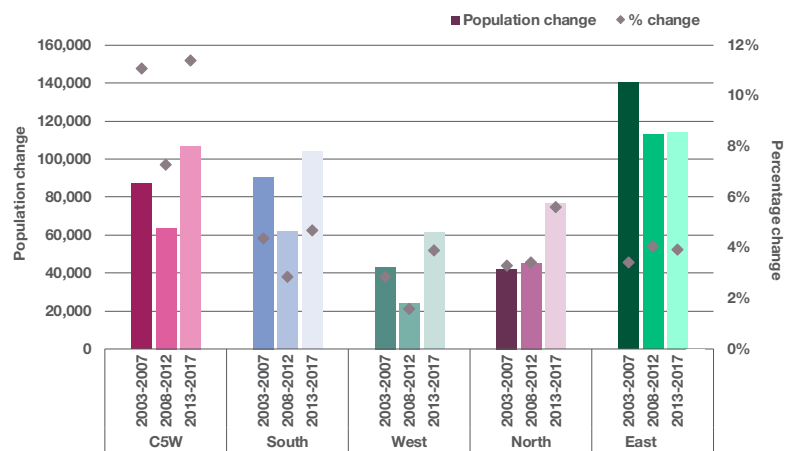
Source: Tokyo Metropolitan Government, Savills Research & Consultancy

MAP 2 **Tokyo's 23 wards by survey area**



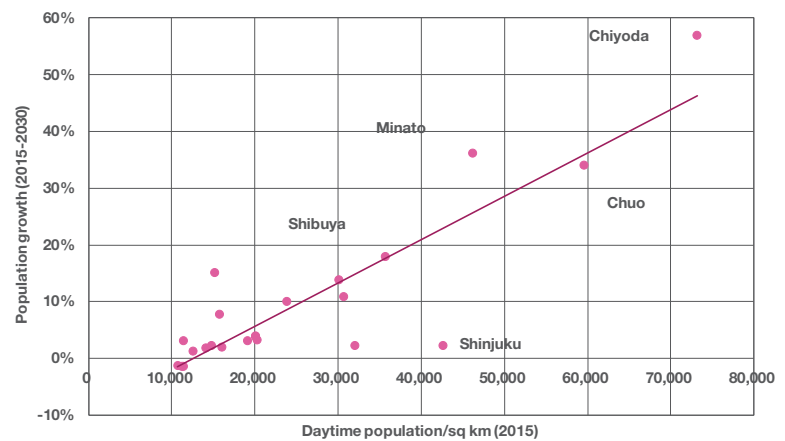
Source: Savills Research & Consultancy

GRAPH 2
Population growth by region, 2003–2017



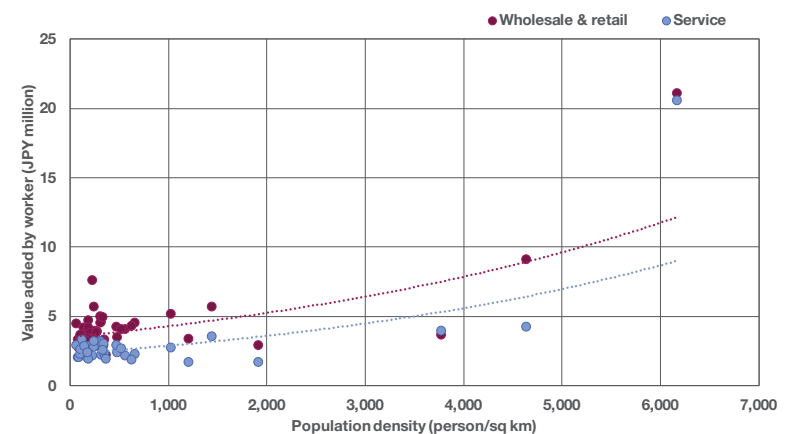
Source: Tokyo Metropolitan Government, Savills Research & Consultancy

GRAPH 3
Population growth projection (2015 vs 2030) and daytime population per sq km (2015) of Tokyo 23W



Source: Tokyo Metropolitan Government, Ministry of Internal Affairs and Communications, Savills Research & Consultancy

GRAPH 4
Labour productivity (2016) and population density (2015) by prefecture



Source: Ministry of Internal Affairs and Communications, Savills Research & Consultancy

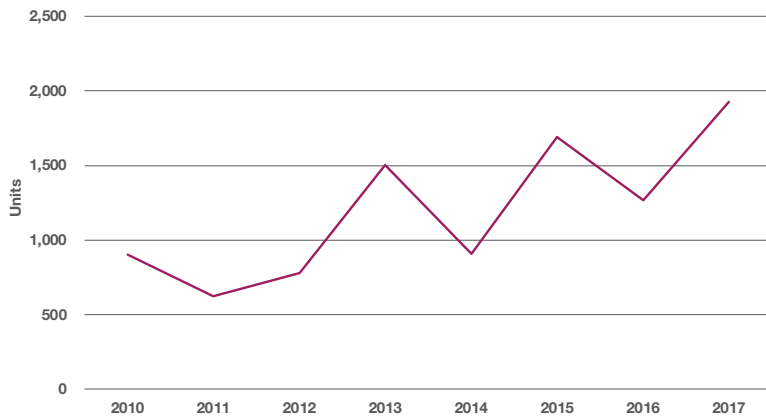
Koto is the most popular ward in the East submarket, accounting for 32% of total increases between 2003 and 2017 in the region. The opening of the Tsukuba Express line through the East submarket contributed to the population jump between 2003 and 2007.

In terms of growth rate, however, the C5W outperformed others, partly because of a low initial base. Growth in the area has been close to three times as rapid as in other submarkets. Chuo, Chiyoda, and Minato, where office buildings are concentrated, registered especially strong growth of 87%, 66%, and 50%, respectively, between 2003 and 2017. On top of relative affordability after the bubble, demand for convenient locations proximate to offices appears to be strengthening as dual-income households become more common.

Based on the Tokyo Metropolitan Government’s projection, more people are likely to move closer to workplaces for the foreseeable future. Graph 3 exhibits a clear correlation between the daytime population density and projected population growth between 2015 and 2030. For example, the residential population of Chiyoda, which has a high concentration of office buildings, is projected to increase by 57%. This creates demand for more city amenities that cater to residents, obscuring the boundary between spaces of work and living. Offering facilities such as schools and childcare centres in new offices symbolises a shift in the concept of the workplace. Heightened competition for talent also incentivises companies to accommodate flexible work styles and creates demand for co-working spaces.

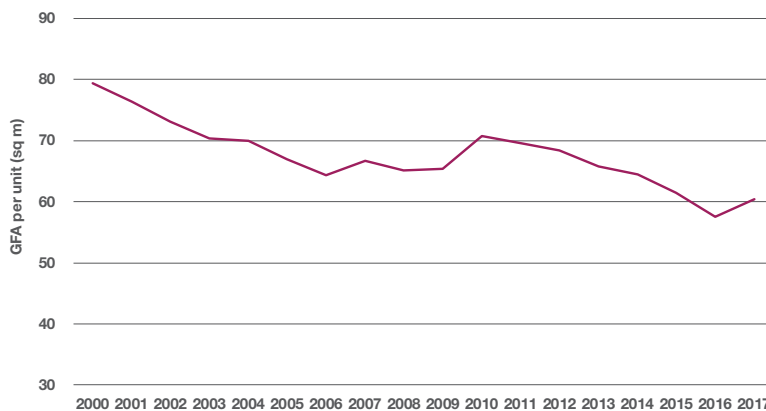
A concentration of residents supports the local economy, which could lead to increases in property values. A research paper published by the Research Institute of Economy, Trade & Industry found a strong correlation between population density and labour productivity, particularly in the service industry. Improvement in productivity appears to rise from factors such as proximity to clients, high demand density, and efficient labour allocation through better skill matching. The shrinking distance between work and home, as well as facilities in new office buildings such as nursery schools and

GRAPH 5
Over JPY100 million condo supply in Greater Tokyo, 2010 – 2017



Source: REEI, Savills Research & Consultancy

GRAPH 6
Gross floor area per residential unit of new housing in 23W, 2000 – 2017



Source: Tokyo Metropolitan Government, Savills Research & Consultancy

→ co-working spaces, could also improve labour participation. The impact from these changes could combine with ongoing labour reforms to boost Japan’s relatively low productivity, especially in the service industry.

Polarisation of housing demand

An inflow of population into the city centre and ongoing redevelopments are raising housing prices in central Tokyo. Based on the Real Estate Economic Institute (REEI) data, supply of high-end condominium units of over JPY100 million has steadily increased between 2010 and 2017. For instance, Mitsui Fudosan Residential’s recent project, Park Mansion Hinokicho Koen, included units rumoured to be

sold for JPY5.5 billion. Toranomon Hills Residential Tower, which is slated for completion in 2021, may include ultra-luxury residential units (possibly including a unit exceeding JPY10 billion, subject to the floor plan). Considering that Asian buyers in particular are expanding their presence in the luxury market, facilities and amenities of future high-end condominiums might be designed to meet the tastes of such clientele.

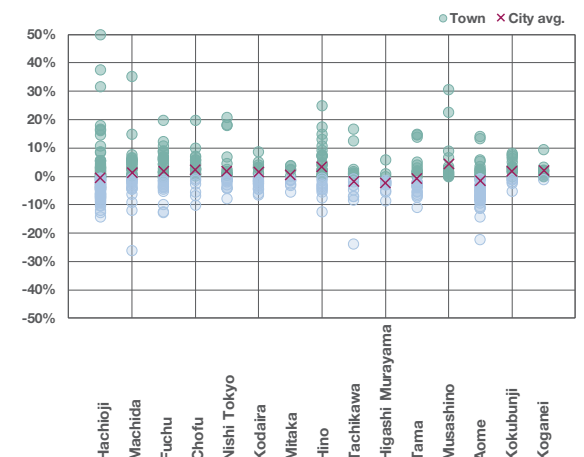
While high-end residences are sought by wealthy domestic and international buyers, demand for affordable housing options appears to be strengthening as well. According to REEI, the number of second-hand condominiums sold in Greater Tokyo exceeded new

condominium supply in 2016, and the trend held in 2017. Given the high price tags of new condominium units and limited sizable land for development, especially in central Tokyo, demand for conveniently located second-hand homes could further strengthen.

It is in this context that major developers such as Mitsui Fudosan Residential and Mitsubishi Estate Residence are making a foray into the renovation business. As vacant houses accounted for 11% of housing stock in Tokyo in 2013, investors who are able to revitalise those houses could reap handsome returns. Given that much of the elderly population owns houses, the stock of vacant homes is expected to increase rapidly. Moreover, since older homes are typically built larger than new ones, renovated second-hand homes may be more attractive than newly-built compact residences for some households. If older buildings are consolidated and sold in portfolios, there may be new investment opportunities for big players.

On a more cautious note, it is also possible that rising housing prices in central Tokyo lead the current urbanisation trend to reverse somewhat, as the population begins to flow back to surrounding areas, such as Outer Tokyo, in search of more affordable space. Although population growth in the Outer Tokyo area is currently flat in most cities, select areas are still seeing strong growth (Graph

GRAPH 7
Population change by town and city in Outer Tokyo, 2010 vs 2015



Source: Ministry of Internal Affairs and Communication, Savills Research & Consultancy

→ 7). The populations of Koshino and Nanakuni in Hachioji, for example, increased 50% and 38%, respectively, between 2010 and 2015, while the city's average growth was -0.4%. Ongoing redevelopment at station-fronts could consolidate populations and city functions into compact areas and positively affect property performance.

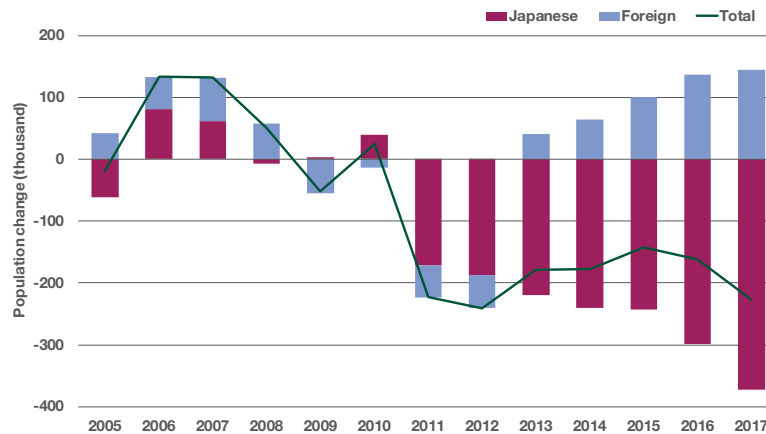
Foreign population

Though it is still a fraction of the total population of Japan, the increasing net inflow of foreign residents is another noticeable demographic trend. The population of foreign nationals has been rapidly increasing since 2013 and is partially offsetting the decline in the population of Japanese nationals. In 2017, the foreign population increased by 145,000 while the Japanese population declined by 372,000.

Not surprisingly, the most common destination for foreign residents is Tokyo. In Tokyo's 23W, the East submarket has seen the largest foreign population increase between December 2012 and June 2017, adding 40,000 persons. In terms of growth rate, the West submarket registered at 55% followed by the North submarket at 50%. As illustrated in Graph 10, increases in foreign residents are also noticeable in regional cities. Additionally, expanding inbound tourism is bringing the transient foreign population to regional destinations and contributes to local economies.

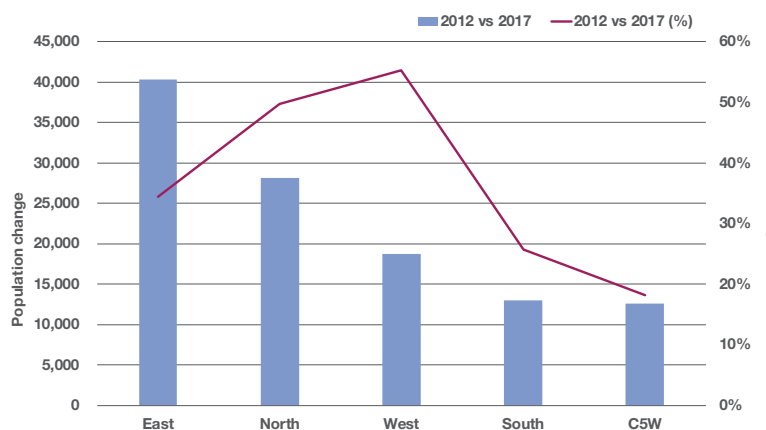
Foreign workforce is becoming more important for some industries. For example, the hospitality industry, whose labour demand has significantly grown due to the expansion of inbound tourism, heavily relies on the foreign population. As of 2017, nearly 17% of workers in the industry were non-Japanese. The IT industry also has a relatively large share of foreign workforce. Just as the finance industry employed a large number of expatriates before the Crisis, the IT industry is likely to attract high-paid professionals in the future. Toyota, for instance, has established a new company, Toyota Research Institute-Advanced Development, to accelerate development for automated driving and plans to globally recruit 1,000 employees for high-quality software development.

GRAPH 8 Japanese and foreign population change, 2005 – 2017



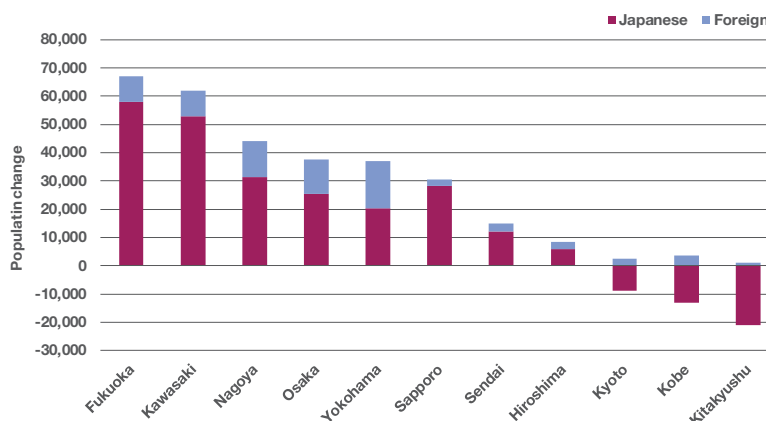
Source: Ministry of Internal Affairs and Communication, Savills Research & Consultancy

GRAPH 9 Foreign population increase in Tokyo 23W by submarket, Dec 2012 vs Jun 2017



Source: Ministry of Justice, municipality websites, Savills Research & Consultancy

GRAPH 10 Japanese and foreign population change in major regional cities, Dec 2012 – Jun 2017



Source: Ministry of Justice, municipality websites, Savills Research & Consultancy

➔ **Alternative assets**

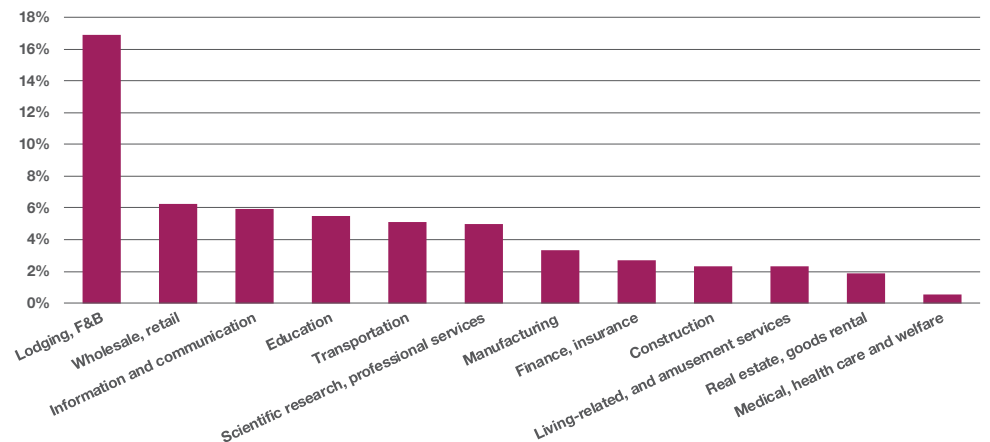
Limited investment opportunities relative to the current abundance of capital has forced some investors to look beyond traditional asset types. Alternative assets such as senior housing and student housing are underpinned by positive demographic stories and have attracted significant investor interest.

Senior housing became an investible asset class in Japan in 2013/2014, and cap rates for the asset type have steadily compressed to the mid-4% range in Tokyo and the mid-5% range in regional cities, indicating much lower premiums over residential assets. Based on a KPMG report, the market size of senior housing (fee-based senior housing and senior housing with supportive services) was estimated to be JPY6.5 trillion in 2016. Currently the market is fragmented, but mergers and acquisitions of healthcare operators should facilitate consolidation and create more opportunities.

As the population of those aged 65 and older is expected to increase by 2.6 million by 2035, the need for healthcare services should continue to grow. Furthermore, over 7.6 million of the 65-and-older population are expected to live alone in 2035 compared to 5.9 million in 2015. This structural change of households should result in additional demand for senior housing.

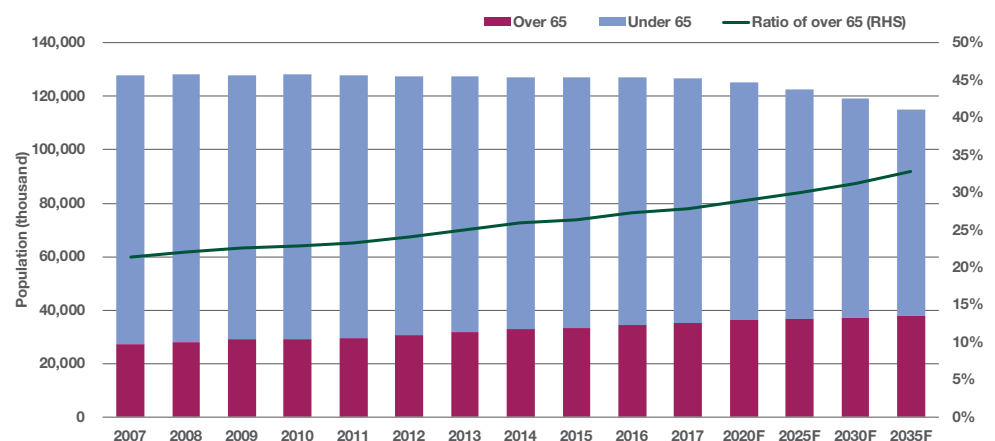
Conversely, the aging population could pose a threat for some submarkets if it creates too much financial burden on the working population. Since long-term care insurance costs partially rely on the tax revenues of prefectures and cities, a high elderly population ratio will squeeze municipalities' budgets and could deteriorate the quality of public services and infrastructure. A shortage of nursing care staff is also an imminent issue for senior housing operation. According to the Ministry of Health, Labour and Welfare, Japan will face a shortage of 126,000 care workers by 2020 and 337,000 by 2025, equivalent to 5.8% and 13.8% of total demand in each year. As illustrated in Graph 13, risk levels from these factors differ by city. Identifying markets with enough resources to support the growing elderly population should be one important consideration for those looking to invest in senior housing.

GRAPH 11 **Foreign workforce shares by industry in Tokyo in 2017**



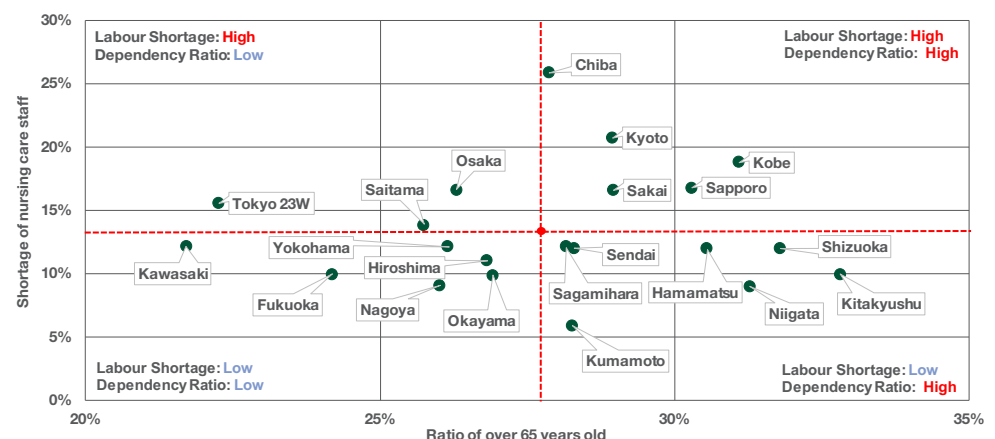
Source: Tokyo Metropolitan Government, Savills Research & Consultancy

GRAPH 12 **Population trend in Japan, 2007 – 2035F**



Source: Ministry of Internal Affairs and Communications, Savills Research & Consultancy

GRAPH 13 **Projected ratio of over 65 years old and shortage of nursing care staff in 2025 by major city***



Source: Ministry of Health, Labour and Welfare, National Institute of Population and Social Security Research, Savills Research & Consultancy
*Nursing care staff demand and supply figures are for prefectures to which each city belong

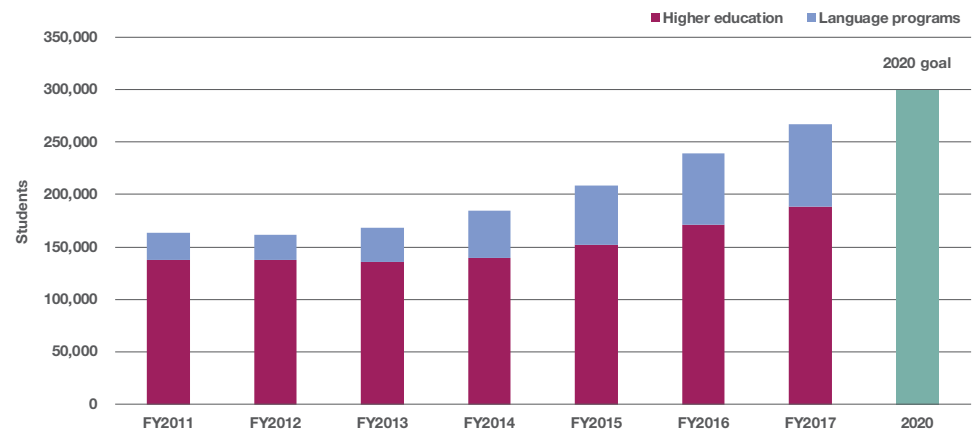
➔ Student housing is another alternative asset type that benefits from current population trends. The number of international students has expanded in recent years and is fuelling potential demand for student accommodation. Cap rates on student housing transactions by J-REITs have been compressing from the mid-high 6% to the low-4% level. Given that residential properties are traded at the low-3% level in Tokyo, yield spreads are still comparatively attractive.

In addition to growing demand for higher education from middle-to-high-income households in Asia, sound job prospects appear to be driving an inflow of students to Japan. Facing a shortage of globally competitive talent, Japanese companies are growing eager to hire international students. The Japan Revitalization Strategy 2016 states that the government aims to significantly increase the share of international students who land jobs in Japan after graduation. They could be a source of future tax revenue and increase consumer spending.

According to data compiled by Toyo Keizai in 2016, Nippon University had the most students in total, followed by Waseda University. As shown in Map 3, large universities are clustered in the northwest and southwest areas of the city centre, thereby making the surrounding areas attractive for student housing developments. For example, GSA Star Asia's first student housing project in Japan is located in Bunkyo and is conveniently situated in the northwest cluster of universities.

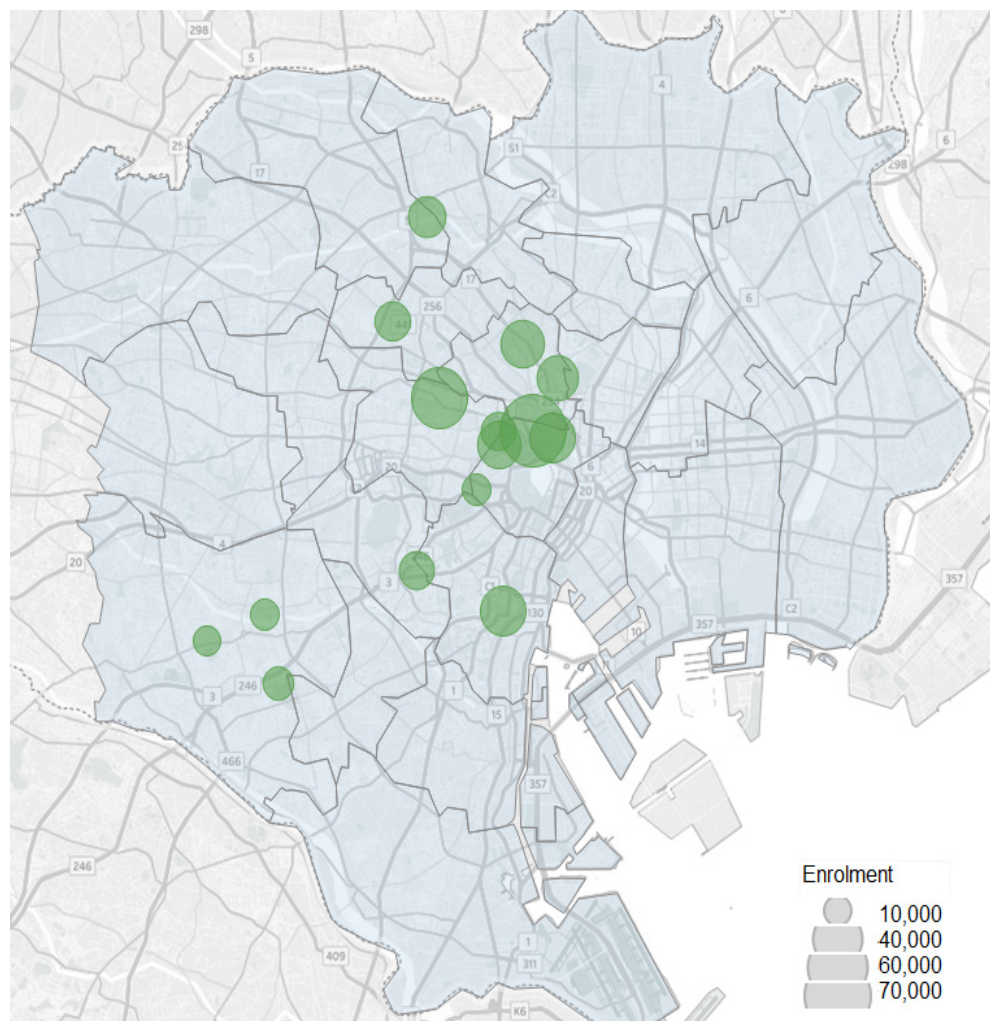
Despite positive demographic trends, these sectors are currently fragmented and acquisitions are difficult for institutional investors. If mergers of owners and operators consolidate the markets, sizable investment opportunities could become available. ■

GRAPH 14 International students studying in Japan, FY2011 – FY2017



Source: Japan Student Services Organization, Savills Research & Consultancy

MAP 3 Enrolment of major universities in Tokyo 23W*



Source: © OpenStreetMap (www.openstreetmap.org/copyright), Toyo Keizai, Savills Research & Consultancy
 *Enrolment figures are as of May 2016 and include undergraduate and graduate students.

OUTLOOK

The prospects for the market

Tokyo is going through a significant growth phase with the population steadily expanding in central areas. With large mixed-use redevelopment projects taking place across central Tokyo, the city is evolving as a global hub. Strengthening inbound tourism is also changing area characteristics to meet tourist needs. As the current population trend is projected to persist, Tokyo should continue to develop into a more integrated city. The 2020 Olympics, development of integrated resorts, and the Linear Chuo Shinkansen bullet train's opening should reinforce Tokyo's transformation and population dynamics over the long term.

Urbanisation should help improve productivity which is the key to

Japan's continuing growth in the face of depopulation. Combined with efforts by the government and large companies to change work styles, the positive impact of urbanisation could be multiplied and assist economic growth in the long term.

While housing prices are climbing due to growing demand in city centres, affordable housing appears to be gaining popularity and second-hand condominium sales have already exceeded new condominium supply. In the Outer Tokyo area, availability of affordable homes and redevelopment projects at station-fronts could attract new residents.

The increasing number of foreign residents and tourists is another demographic change that is having a positive impact on the domestic

economy. The IT industry could attract high-paid global talent just as the finance industry did before the Crisis. Expanding inbound tourism is also stoking local economies around travel destinations such as Niseko, Hakuba, and Osaka. Its impact is reflected in soaring land prices, which is leading to development projects and further growth of local economies.

A highly competitive investment climate and a positive demand outlook are increasing the popularity of both senior and student housing. If a consolidation of owners and operators in these sectors progresses, they could provide sizable investment opportunities.

Please contact us for further information

Savills Japan



Christian Mancini
CEO, Asia Pacific
(excl. Greater China)
+81 3 6777 5150
cmancini@savills.co.jp

Savills Research



Tetsuya Kaneko
Director, Head of Research
& Consultancy, Japan
+81 3 6777 5192
tkaneko@savills.co.jp



Simon Smith
Senior Director
Asia Pacific
+852 2842 4573
ssmith@savills.com.hk

Savills plc

Savills is a leading global real estate service provider listed on the London Stock Exchange. The company established in 1855, has a rich heritage with unrivalled growth. It is a company that leads rather than follows, and now has over 600 offices and associates throughout the Americas, Europe, Asia Pacific, Africa and the Middle East.

This report is for general informative purposes only. It may not be published, reproduced or quoted in part or in whole, nor may it be used as a basis for any contract, prospectus, agreement or other document without prior consent. Whilst every effort has been made to ensure its accuracy, Savills accepts no liability whatsoever for any direct or consequential loss arising from its use. The content is strictly copyright and reproduction of the whole or part of it in any form is prohibited without written permission from Savills Research.