

Xymax Real Estate Institute released a report on **Supply of New Office Space 2017** and **Office Stock Pyramid 2017** covering the Tokyo 23 Wards office area. The volume of new supply in the coming years indicates a direct impact on the market balance in the future. The Office Stock Pyramid is an aggregation of all the rentable areas of office buildings in the market and it shows the breakdown of the office building stock (rentable area and number of buildings) by size of the building (small/medium/large) and by age, and the balance and proportion of office buildings in the market.

From this report, these two studies were combined into one report.

1 tsubo = approx. 3.3 sq m

## SUMMARY OF RESULTS

### TOKYO 23 WARDS | Supply of New Office Space 2017

- ✓ New supply in 2017 is 117,000 tsubo. This is small and equivalent to the volume in 2013 when it was 10-year low. However, a relatively large volume is expected for 2018-2020 with around 200,000 tsubo per annum.
- ✓ Average new supply in 2017-2020 is 181,000 tsubo per annum based on rentable area. This is equivalent to the 10-year average of 180,000 tsubo per annum.
- ✓ A large proportion of new supply in 2017-2020 is in the central three wards (Chiyoda, Chuo and Minato), accounting for 68% of the entire new supply.
- ✓ New supply rate (new supply in 2017-2020 versus office stock at year-end 2016) is expected to be approx. 6.0% (1.5% per annum on average).

### TOKYO 23 WARDS | Office Stock Pyramid 2017

- ✓ Office stock at year-end 2017 is 12.26 million tsubo based on the rentable area: 5.77 million tsubo (47%) in small and medium buildings and more than half or 6.49 million tsubo (53%) in large buildings.
- ✓ In the number basis, the office stock is 8,395 buildings. Of them, small and medium buildings account for more than 90% (7,672 buildings).
- ✓ Buildings' average age is 29.1 years for all the stock, 29.7 years for small and medium buildings and 22.5 years for large buildings. Aging of stock is prominent in small and medium buildings.
- ✓ By area, the central five wards have 9.30 million tsubo rentable area and 6,424 buildings, which are approx. three-fourths of the stock in all the wards, and the periphery 18 wards have the remaining 2.96 million tsubo rentable area and 1,971 buildings.
- ✓ By area, the average age of buildings is 29.6 years for central five wards and 27.3 for periphery 18 wards.

## TOKYO 23 WARDS | Supply of New Office Space 2017

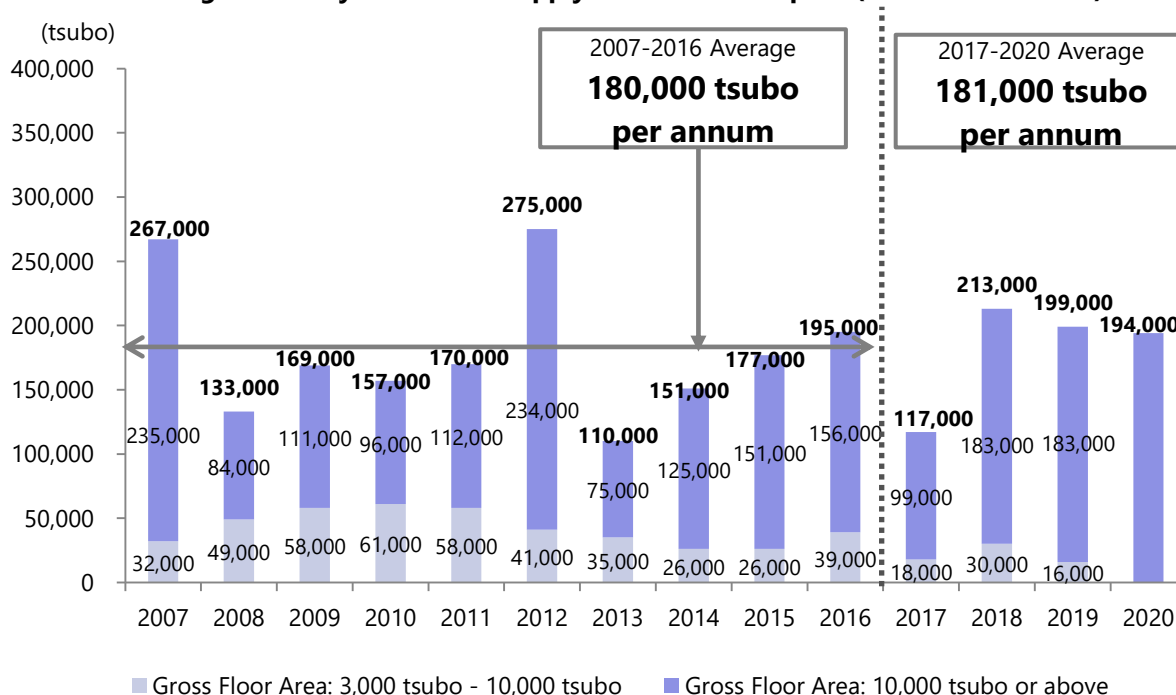
The new supply in Tokyo 23 Wards in 2017 is 117,000 tsubo, which is drastically below the average annual volume in 2007-2016 (hereinafter the "10-year average"). However, in 2018 and beyond, the annual supply is expected to exceed the 10-year average to around 200,000 tsubo per annum. The new supply in 2017-2020 decreased from our previous study in 2016<sup>\*1</sup> for 2016-2019, from 186,000 tsubo to 181,000 tsubo per annum (**Figure 1**). If compared, the average new supply in 2017-2020 will be equivalent to the 10-year average.

If we look at large buildings (gross floor area: 10,000 tsubo and above), the average new supply in 2017-2020 is 165,000 tsubo per annum, exceeding the 10-year average of 138,000 tsubo per annum. The new supply of large buildings will remain strong in particular from 2018 forward as the volume is expected to go beyond 180,000 tsubo per annum.

The new supply rate, which is the rate of new supply in 2017-2020 versus the office stock at year-end 2016, is approximately 6.0% (1.5% per annum).

\*1 Supply of New Office Space 2016 released on December 24, 2015  
<https://www.xymax.co.jp/english/research/images/pdf/20151224.pdf>

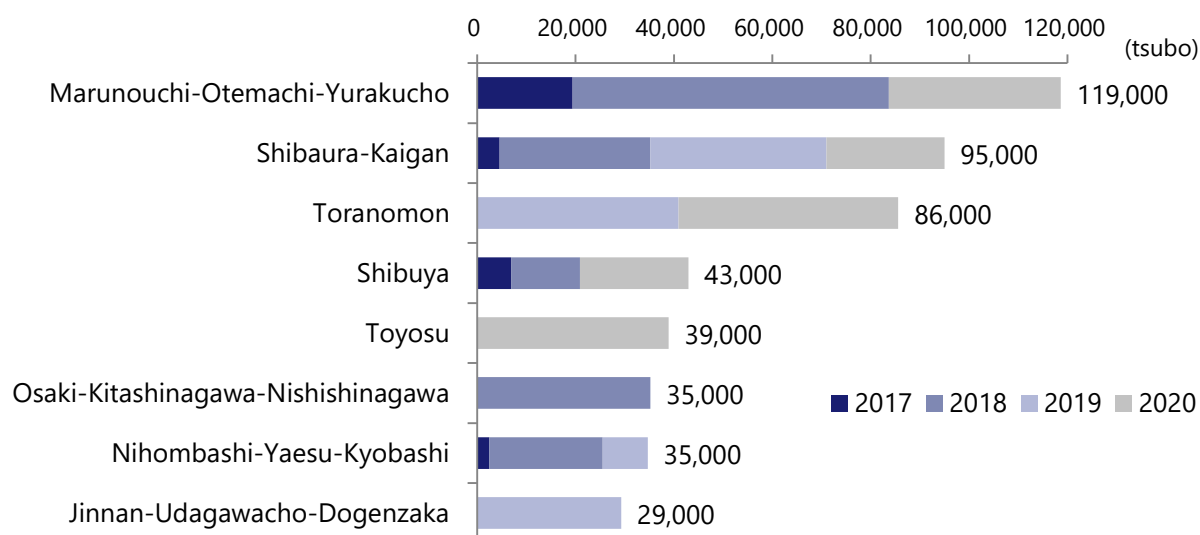
**Figure 1: Tokyo 23 Wards Supply of New Office Space (Net Rentable Area)**



By area, 68% of the new supply is in the central three wards (Chiyoda, Chuo and Minato). Here are the highlights (**Figure 2**).

- In Marunouchi-Otemachi-Yurakucho, the central Tokyo's prime office district, the new supply is approximately 120,000 tsubo, the largest supply of all the office areas in Tokyo. Redevelopment projects were launched one after another in this area. The new supply of large buildings is expected to continue.
- In Shibaura-Kaigan, the supply of new office buildings from large-scale redevelopment projects is expected in an area where used to be a non-office district.
- In Toranomom, the new supply from large-scale redevelopments is expected to continue because integrated redevelopments are going on in this area encompassing various sectors including the infrastructure improvements (Kanjo Route No. 2, the new subway station and bus-rapid transit system) and the hotel and medical facilities developments.

**Figure 2: New Supply by Area (2017-2020)**



## TOKYO 23 WARDS | Office Stock Pyramid 2017

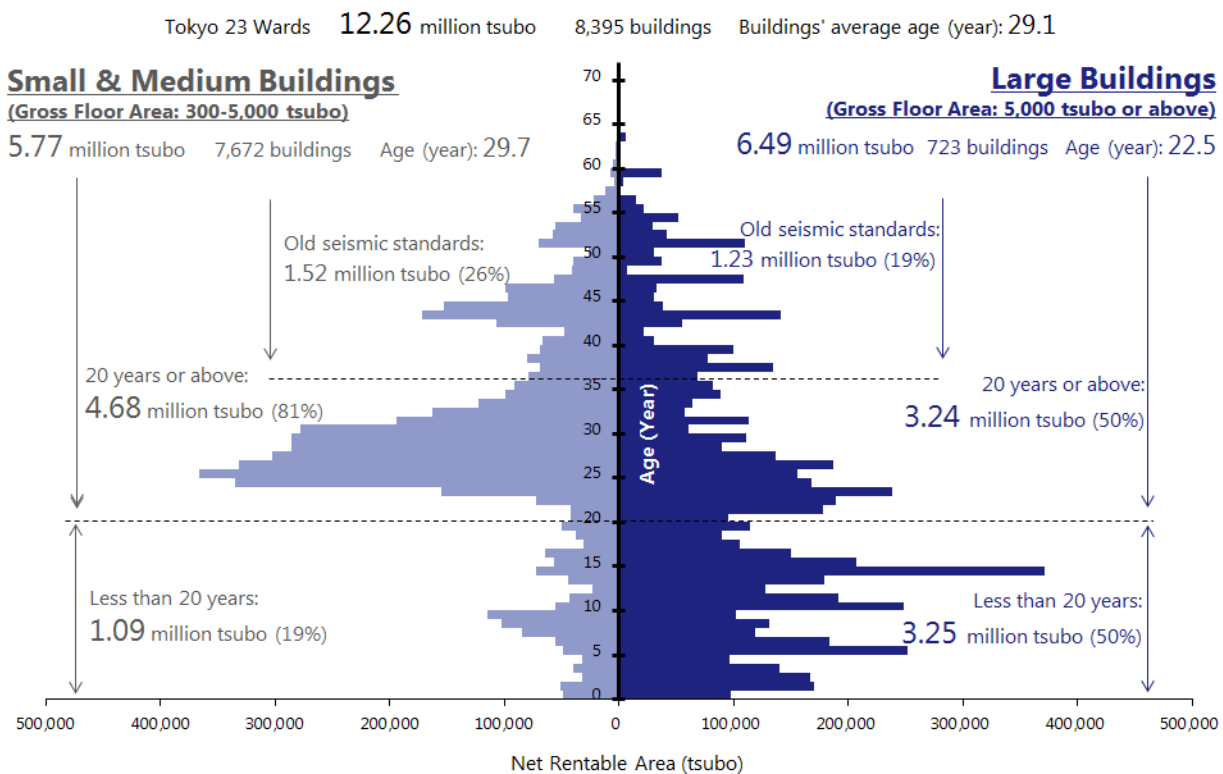
The Office Stock Pyramid follows the method of a population pyramid representing the distribution of age groups by gender. We divided the office building stock into small and medium buildings and large buildings and then compared their rentable area and the number of buildings by age. The pyramid shows the balance and proportion of the office stock.

### 1. Small & Medium Buildings versus Large Buildings

The office stock in Tokyo 23 Wards as of end of 2017 is 12.26 million tsubo based on rentable area. Of them, small and medium buildings (gross floor area: less than 5,000 tsubo) are 5.77 million tsubo, accounting for 47% of the entire stock, and large buildings (gross floor area: 5,000 tsubo and above) are 6.49 million tsubo, accounting for 53%; the rentable areas of large buildings and small and medium buildings are approximately the same (**Figure 3**).

The average age of the buildings is 29.1 years. Aging of the stock is prominent in small and medium buildings in particular.

**Figure 3: Tokyo 23 Wards Office Stock Pyramid 2017(Net Rentable Area) Small & Medium vs Large**

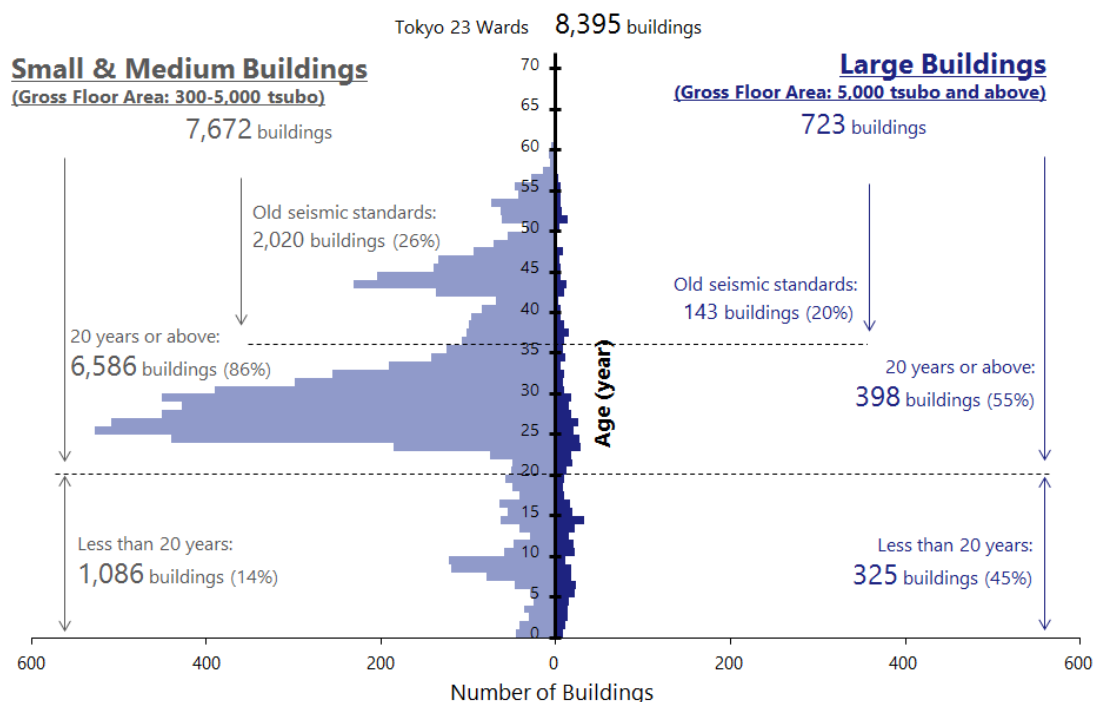


In the number basis, there are 8,395 buildings in the office stock in Tokyo 23 Wards: 7,672 buildings (91%) are small or medium buildings and 723 buildings (9%) are large buildings (**Figure 4**).

If we look at the small and medium buildings, the stock is dominated by buildings constructed during the bubble era (1986-1997; 20-31 years old). Buildings constructed 20 years ago or before account for over 80% (6,586 buildings) of all the small and medium buildings. Compared with this, there was not much new supply after the bubble era; 1,086 buildings were constructed in the recent 20 years. This is the same in the rentable area basis; office buildings constructed 20 years ago or before dominate the stock. There are 4.68 million tsubo constructed 20 years ago or before while 1.09 million tsubo were constructed in the recent 20 years.

The office stock of large buildings has only a small difference; 325 buildings were constructed in the recent 20 years while the buildings constructed 20 years ago or before slightly exceeded this to 398 buildings. This is again the same in the rentable area basis; 3.24 million tsubo was constructed 20 years ago or before while 3.25 million tsubo was constructed in the recent 20 years; the numbers are approximately the same, indicating that the new supply continued even after the bubble era.

**Figure 4: Tokyo 23 Wards Office Stock Pyramid 2017 (Number of Buildings) Small & Medium vs Large**

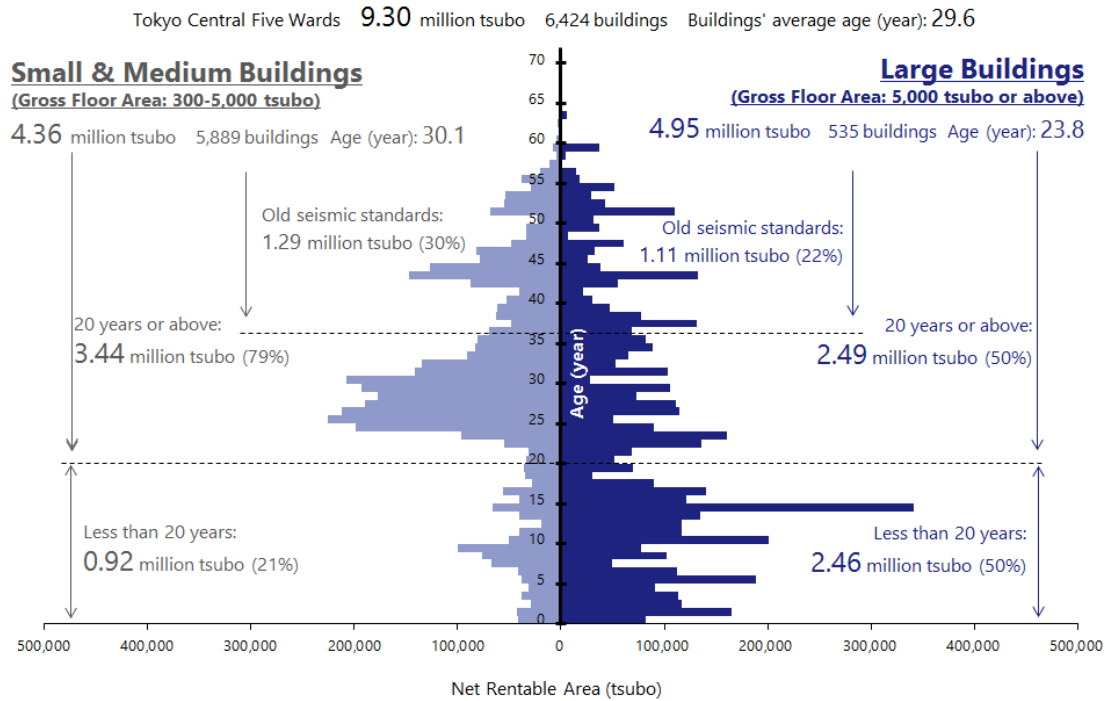


## 2. Analysis by Area (Central Five Wards and Periphery 18 Wards)

We made a separate pyramid for the central five wards and for the periphery 18 wards. As of end of 2017, the office stock in Tokyo's central five wards is 9.30 million tsubo based on the rentable area, accounting for 76% of the overall office stock in Tokyo 23 Wards. Here is the breakdown: 4.36 million tsubo (47%) is small and medium buildings and 4.95 million tsubo (53%) is large buildings (**Figure 5**).

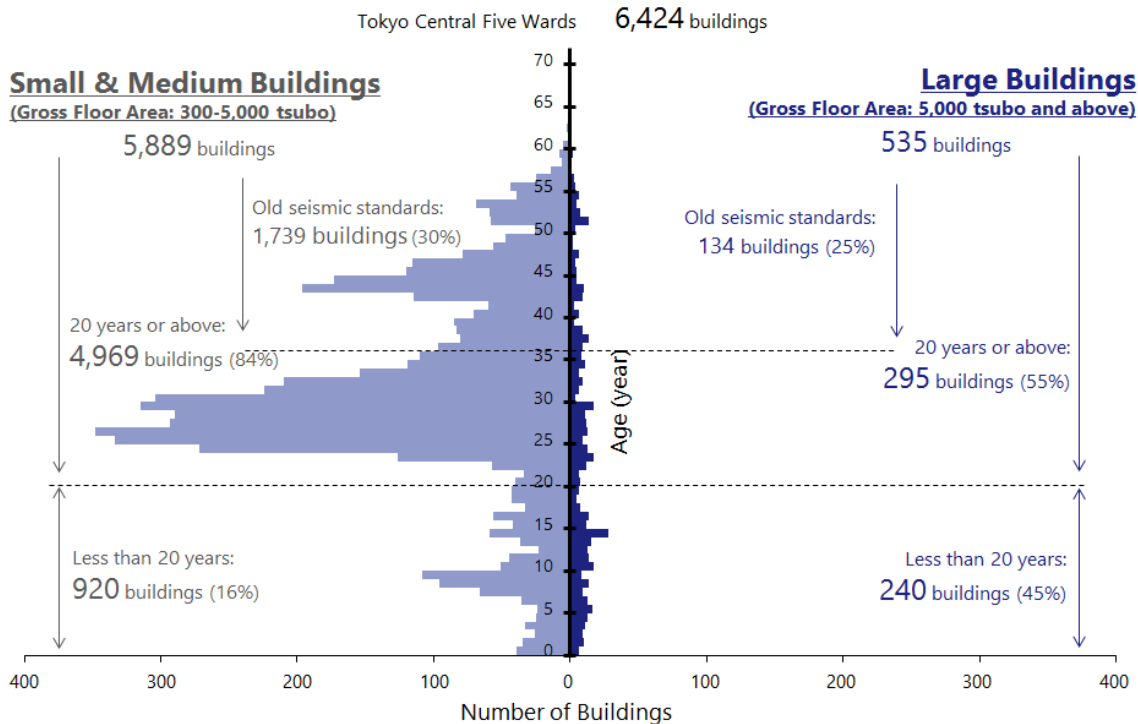
The average age of the stock in the central five wards is 29.6 years. Aging of the stock is more rapid for small and medium buildings than for large buildings: 30.1 years and 23.8 years, respectively.

**Figure 5: Tokyo Central Five Wards Office Stock Pyramid 2017 (Net Rentable Area) Small & Medium vs Large**



In the number basis, there are 6,424 buildings in Tokyo's central five wards. Of them, 5,889 buildings (92%) are small or medium buildings while 535 buildings (8%) are large buildings (Figure 6).

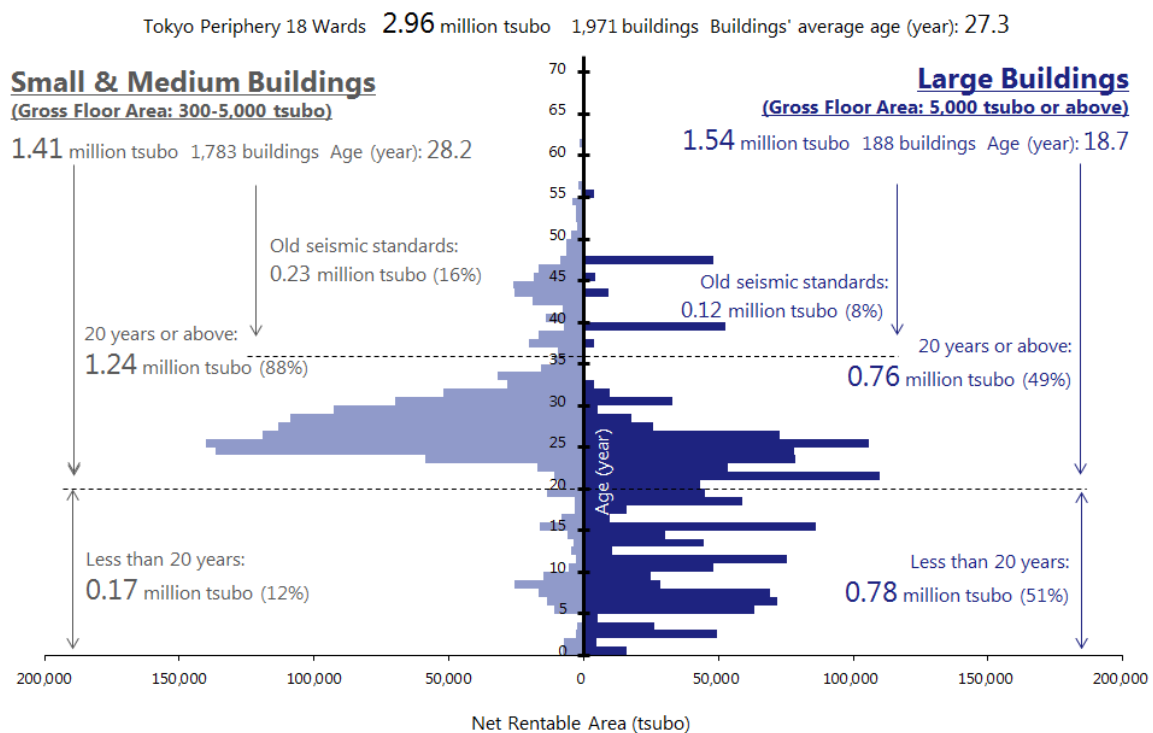
**Figure 6: Tokyo Central Five Wards Office Stock Pyramid 2017 (Number of Buildings) Small & Medium vs Large**



Now if we look at the stock as of end of 2017 in Tokyo's periphery 18 wards, the rentable area is 2.96 million tsubo, accounting for 24% of overall Tokyo 23 Wards. Of them, 1.41 million tsubo (48%) is small or medium buildings and 1.54 million tsubo (52%) is large buildings (Figure 7).

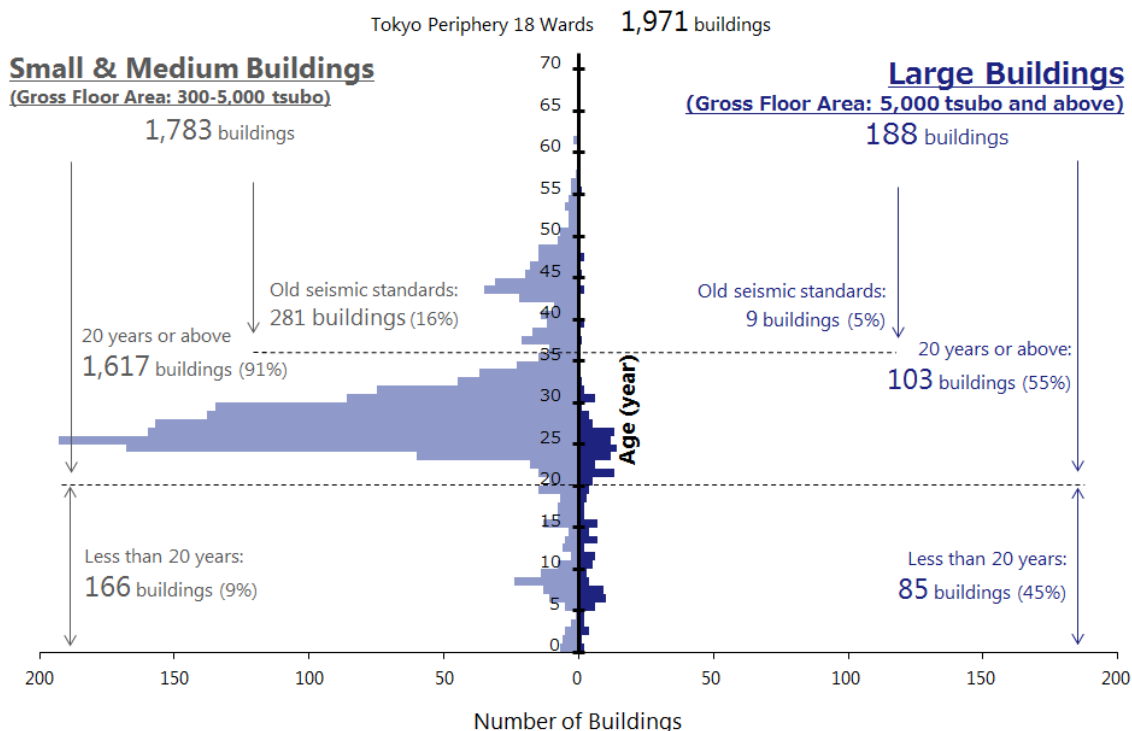
The average age of the stock in the periphery 18 wards is 27.3 years, meaning buildings are slightly newer than those in the central five wards. For small and medium buildings, the average age is 28.2 years, and for large buildings, it is 18.7 years. This is because large buildings that are over 30 years of age rarely exist in the periphery 18 wards.

**Figure 7: Tokyo Periphery 18 Wards Office Stock Pyramid 2017 (Net Rentable Area) Small & Medium vs Large**



In the number basis, there are 1,971 buildings in the periphery 18 wards; 1,783 buildings (90%) are small and medium buildings while 188 buildings (10%) are large buildings (Figure 8). Many of the small and medium buildings were constructed during the bubble era.

**Figure 8: Tokyo Periphery 18 Wards Office Stock Pyramid 2017 (Number of Buildings) Small & Medium vs Large**





OVERVIEW OF STUDY

Supply of New Office Space

<b>Date</b>	November 2016
<b>Area</b>	Tokyo 23 Wards
<b>Subject Building</b>	3,000 tsubo or above gross floor area / Used mainly as office space (but excluding owner-occupied buildings)
<b>Subject Data</b>	Office rentable area (tsubo)
<b>Method</b>	Based on publicly available information such as newspaper articles. Also some site inspections and interviews with developers.

- The subject of this study is the floor area of new supply. This is not a complete survey.
- If the net rentable area is publicly available, that size is used in this study. If not, we estimated it based on the gross floor area with the formula jointly developed with the laboratory of Dr. Naoki Katoh, Professor of Kyoto University Graduate School of Engineering.
- The new supply estimated in this study is the estimated amount as of the date of this study. Actual new supply changes as new information becomes available.

Office Stock Pyramid

<b>Date</b>	November 2016
<b>Area</b>	Tokyo 23 Wards
<b>Subject Building</b>	As of the end of 2017 / 300 tsubo or above gross floor area / Construction completed in or after 1946 (incl. buildings to be completed within 2017) / Used mainly as office
<b>Subject Data</b>	Number of office buildings and office rentable areas of large buildings and small and medium buildings. Large buildings (gross floor area: 5,000 tsubo or above) Small and medium buildings (gross floor area: 300-5,000 tsubo)

- The data were collected from publicly available information such as newspaper articles and for-rent information (in the past too). We collected the data of buildings if their date of construction is available. Owner-occupied buildings were excluded.
- The data of new constructions replacing the old buildings and the data of demolished buildings have been collected and reflected to the extent possible.
- The amounts in this study are the amounts as of the date of this study and are subject to change as new information becomes available.
- The office stock in 2017 includes buildings which will be completed in 2017 if such completion schedule is available as of Nov. 2016.
- If the net rentable area is publicly available, that size is used in this study. If not, we estimated it based on the gross floor area with the formula jointly developed with the laboratory of Dr. Naoki Katoh, Professor of Kyoto University Graduate School of Engineering.
- Buildings constructed under the "old seismic standards" refer to the buildings constructed before the enforcement of the new seismic standards in 1981. In this study, buildings completed in 1981 or before were deemed as constructed in line with the old seismic standards.