

Office Stock Pyramid 2020

January 10, 2020

Xymax Real Estate Institute hereby releases "Office Stock Pyramid 2020" covering the 23 wards of Tokyo (hereinafter, "Tokyo 23 Wards") and the city of Osaka (hereinafter, "Osaka City"). The Office Stock Pyramid is a survey of buildings with a gross floor area of at least 300 tsubo used mainly for offices and indicates the breakdown of the rentable area and the number of buildings by size of the building and age.

1 tsubo = approx. 3.3 sq m

Main Findings

1. TOKYO 23 WARDS | Comparison between Small & Medium Buildings and Large Buildings

- ✓ The office stock at the end of 2020 is expected to be 12.96 million tsubo on a rentable area basis, which is almost evenly split between small & medium buildings and large buildings at 6.07 million tsubo (47%) and 6.89 million tsubo (53%), respectively.
- ✓ In terms of the number of buildings, the office stock is expected to be 9,293 buildings, of which small & medium buildings account for 92% (8,538 buildings).
- ✓ The average age of the buildings is 31.6 years for the entire stock, 32.3 years among small & medium buildings and 23.6 years among large buildings, which indicates that the stock of small & medium buildings are aging in particular.

2. TOKYO 23 WARDS | Comparison between 5 Central Wards and 18 Peripheral Wards

- ✓ The office stock of the 5 central wards (Chuo, Chiyoda, Minato, Shibuya and Shinjuku Wards) have a rentable area of 9.75 million tsubo and 6,829 buildings, which is approximately three-fourths of the stock in all the wards, while the 18 peripheral wards have a rentable area of 3.20 million tsubo and 2,464 buildings.
- ✓ The average building age is 31.9 years in the 5 central wards and 30.9 years in the 18 peripheral wards.

3. OSAKA CITY | Comparison between Small & Medium Buildings and Large Buildings

- ✓ The office stock at the end of 2020 is expected to be 2.78 million tsubo on a rentable area basis, which is evenly split between small & medium buildings and large buildings at 1.39 million tsubo and 1.39 million tsubo, respectively.
- ✓ In terms of the number of buildings, the office stock is expected to be 1,714 buildings, of which small & medium buildings account for 89% (1,526 buildings).
- ✓ The average age of the buildings is 32.8 years for the entire stock, 33.3 years among small & medium buildings and 29.2 years among large buildings

4. Comparison with 2000

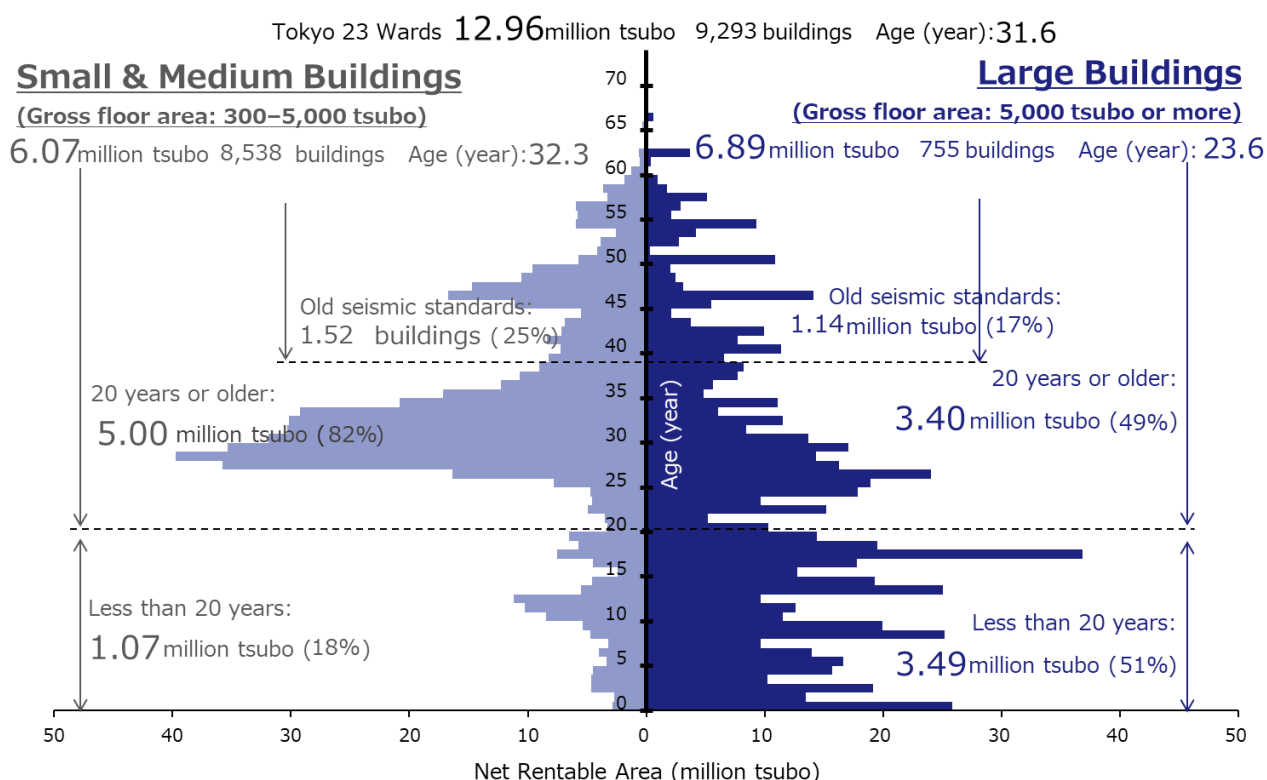
- ✓ Tokyo 23 Wards: In comparison to the end of 2000, the rentable area will increase by 3.15 million tsubo (32%) and the number of buildings by 400 (4%).
- ✓ Osaka City: In comparison to the end of 2000, the rentable area will increase by 0.33 million tsubo (13%) and the number of buildings by 28 (2%).

1. TOKYO 23 WARDS | Comparison between Small & Medium Buildings and Large Buildings

The office stock in Tokyo 23 Wards as of the end of 2020 will be 12.96 million tsubo on a rentable area basis (**Figure 1**). Of this, small & medium buildings with a gross floor area of less than 5,000 tsubo amount to 6.07 million tsubo, 47% of the total. Large buildings with a gross floor area of 5,000 or more account for roughly the same amount of stock at 6.89 million tsubo, 53% of total.

The average building age of the entire office stock is 31.6 years. The average age of the stock of small & medium buildings (32.3 years) is older than that of large buildings (23.6 years).

Figure 1: Tokyo 23 Wards Office Pyramid 2020 (Net Rentable Area)

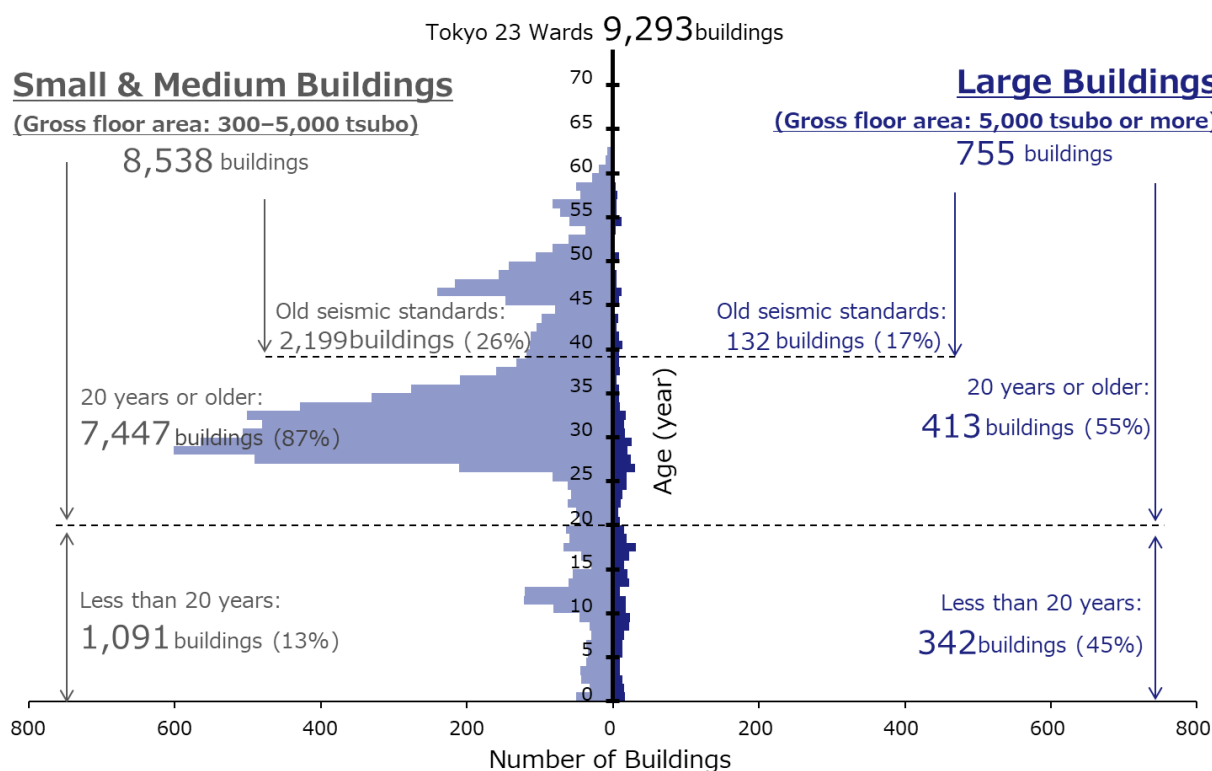


Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

In terms of the number of buildings, the office stock of the entire Tokyo 23 Wards is 9,293 buildings, of which small & medium buildings amount to 8,538 buildings (92%), while large buildings number 755 buildings (8%), indicating that the majority of the office stock are small & medium buildings (**Figure 2**).

Figure 2: Tokyo 23 Wards Office Pyramid 2020 (Number of Buildings)



Many small & medium buildings were completed during the bubble economy period (completed in 1986–1997; building age 23–34 years), with 82% (5.00 million tsubo) of the buildings aged 20 years or older. New supply has been few after the bubble period, with only 1.07 million tsubo of the rentable area aged less than 20 years. In terms of the number of buildings, buildings aged 20 years or older also account for a majority of small & medium buildings, with 7,447 buildings aged 20 years or older and 1,091 buildings less than 20 years old.

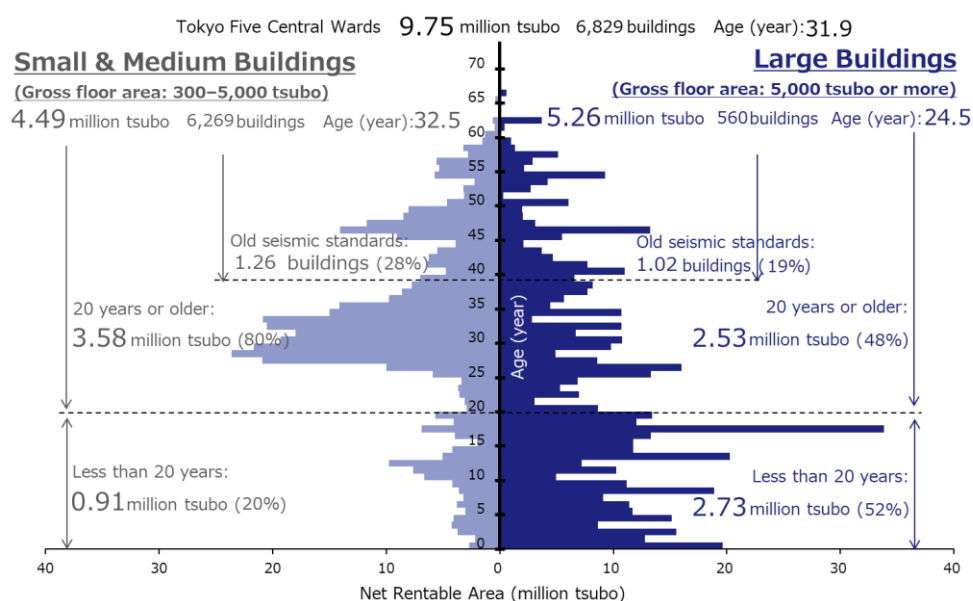
Among large buildings, 3.40 million tsubo of rentable area are aged 20 years or older, while roughly the same amount (3.49 million tsubo) are aged less than 20 years. In terms of the number of buildings, 413 buildings are aged 20 years or older, which is slightly more than the 342 buildings that are less than 20 years old. However, the difference is small, indicating that the supply of large buildings continued after the bubble economy period.

2. TOKYO 23 WARDS | Comparison between 5 Central Wards and 18 Peripheral Wards

Here we compare the office stock of the 5 central wards (Chuo, Chiyoda, Minato, Shibuya and Shinjuku Wards) and the 18 peripheral wards.

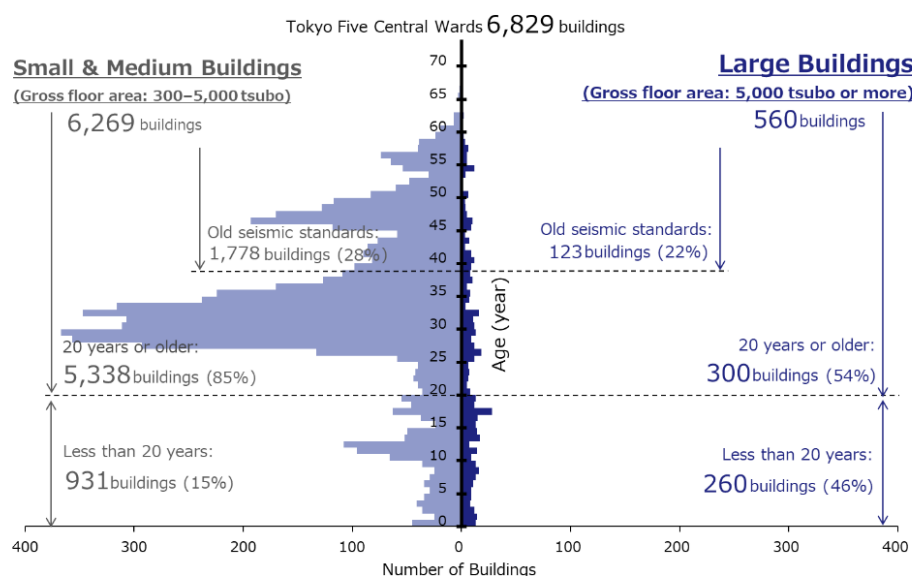
As of the end of 2020, the office stock in Tokyo's 5 central wards will be 9.75 million tsubo based on rentable area, which accounts for 75% of the entire office stock of Tokyo 23 Wards. This can be broken down into 4.49 million tsubo (46%) of small & medium buildings and 5.26 million tsubo (54%) of large buildings (**Figure 3**). The average age of the stock in the 5 central wards is 31.9 years. Small & medium buildings are aging more rapidly than large buildings, with the average ages 32.5 years among the former and 24.5 years among the latter.

Figure 3: Tokyo 5 Central Wards Office Pyramid 2020 (Net Rentable Area)



The number of buildings in the 5 central wards will be 6,829, of which 6,269 (92%) are small & medium buildings and 560 (8%) are large buildings (**Figure 4**).

Figure 4: Tokyo 5 Central Wards Office Pyramid 2020 (Number of Buildings)

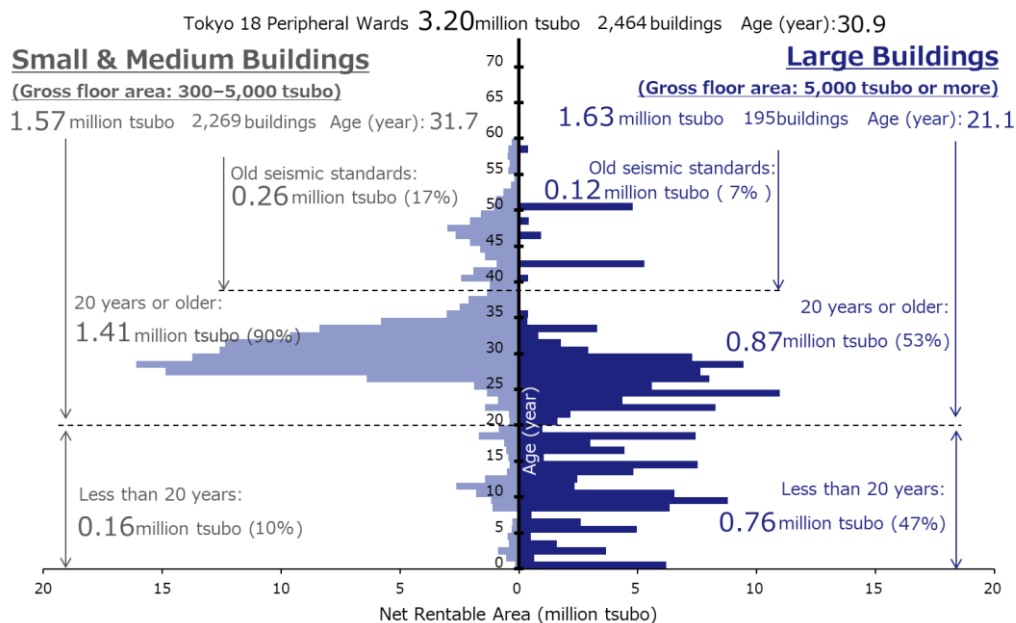


Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

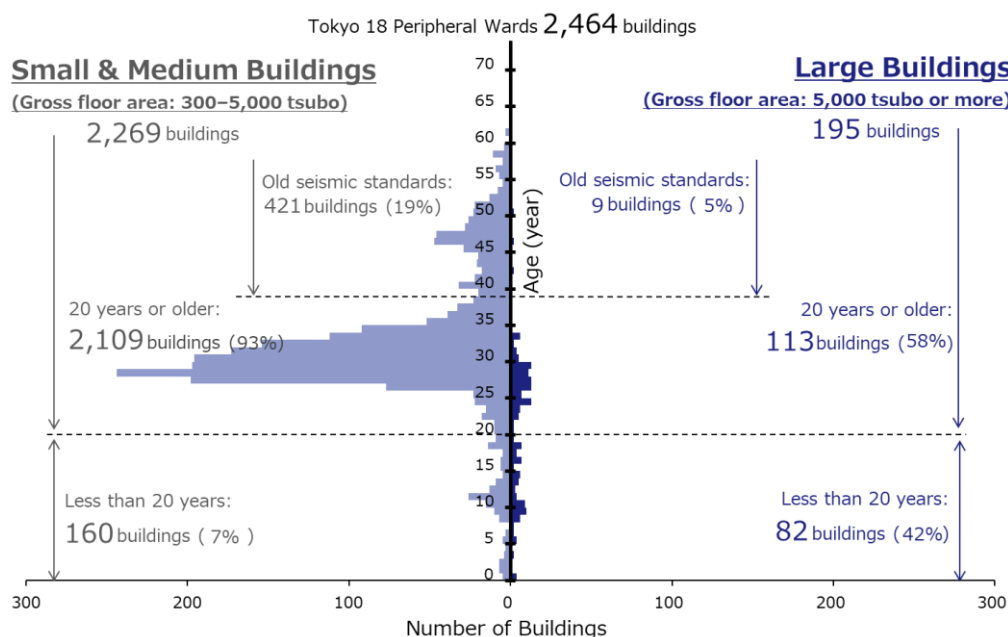
Meanwhile, the office stock in Tokyo's 18 peripheral wards as of the end of 2020 will be 3.20 million tsubo on a rentable area basis, 25% of the entire stock of Tokyo 23 Wards. Of this, small & medium buildings account for 49% with a rentable area of 1.57 million tsubo, while large buildings account for 51% with 1.63 million tsubo (**Figure 5**). The average building age of the entire stock of the 18 peripheral wards is 30.9 years, which is not significantly different from the 31.9 years of the 5 central wards. By building size, the average age of small & medium buildings is 31.7 years, while that of large buildings is 21.1 years.

Figure 5: Tokyo 18 Peripheral Wards Office Pyramid 2020 (Net Rentable Area)



The number of buildings in the 18 peripheral wards is 2,464, of which 2,269 (92%) are small & medium buildings and 195 (8%) are large buildings (**Figure 6**).

Figure 6: Tokyo 18 Peripheral Wards Office Pyramid 2020 (Number of Buildings)



Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

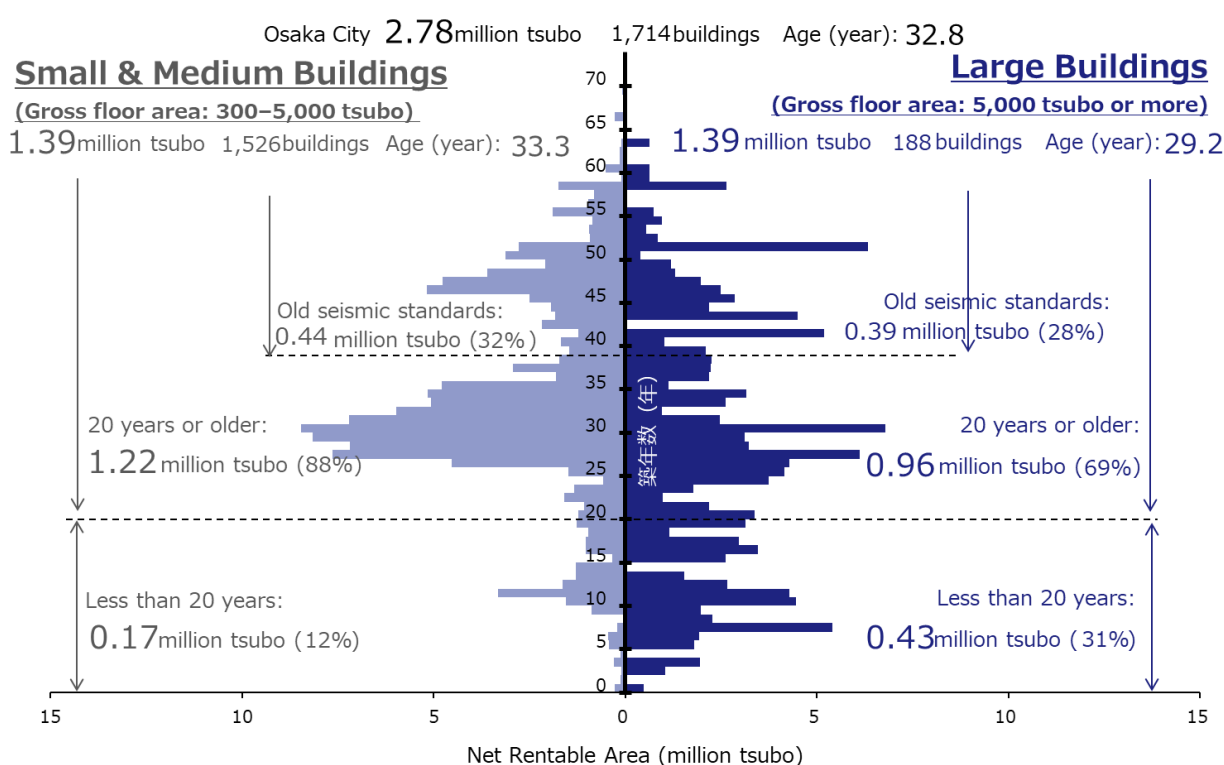
3. OSAKA CITY | Comparison between Small & Medium Buildings and Large Buildings

The office stock in Osaka City as of the end of 2020 will be 2.78 million tsubo on a rentable area basis (**Figure 7**). This is evenly split between small & medium buildings with a gross floor area of less than 5,000 tsubo and large buildings with a gross floor area of 5,000 or more, each amounting to 1.39 million tsubo. The office stock of Osaka City of 2.78 million tsubo is 21% of that of Tokyo 23 Wards of 12.96 million tsubo.

The average building age of the entire office stock is 32.8 years. The average age of the stock of small & medium buildings (33.3 years) is slightly older than that of large buildings (29.2 years).

In terms of composition by age, office stock aged 20 years or older accounts for 88% among small & medium buildings, with 1.22 million tsubo aged 20 years or older and 0.17 million tsubo aged less than 20 years, indicating that the supply over the past 20 years has been small. Among large buildings, 0.96 million tsubo are aged 20 years or older, while 0.43 million tsubo are less than 20 years old.

Figure 7: Osaka City Office Pyramid 2020 (Net Rentable Area)

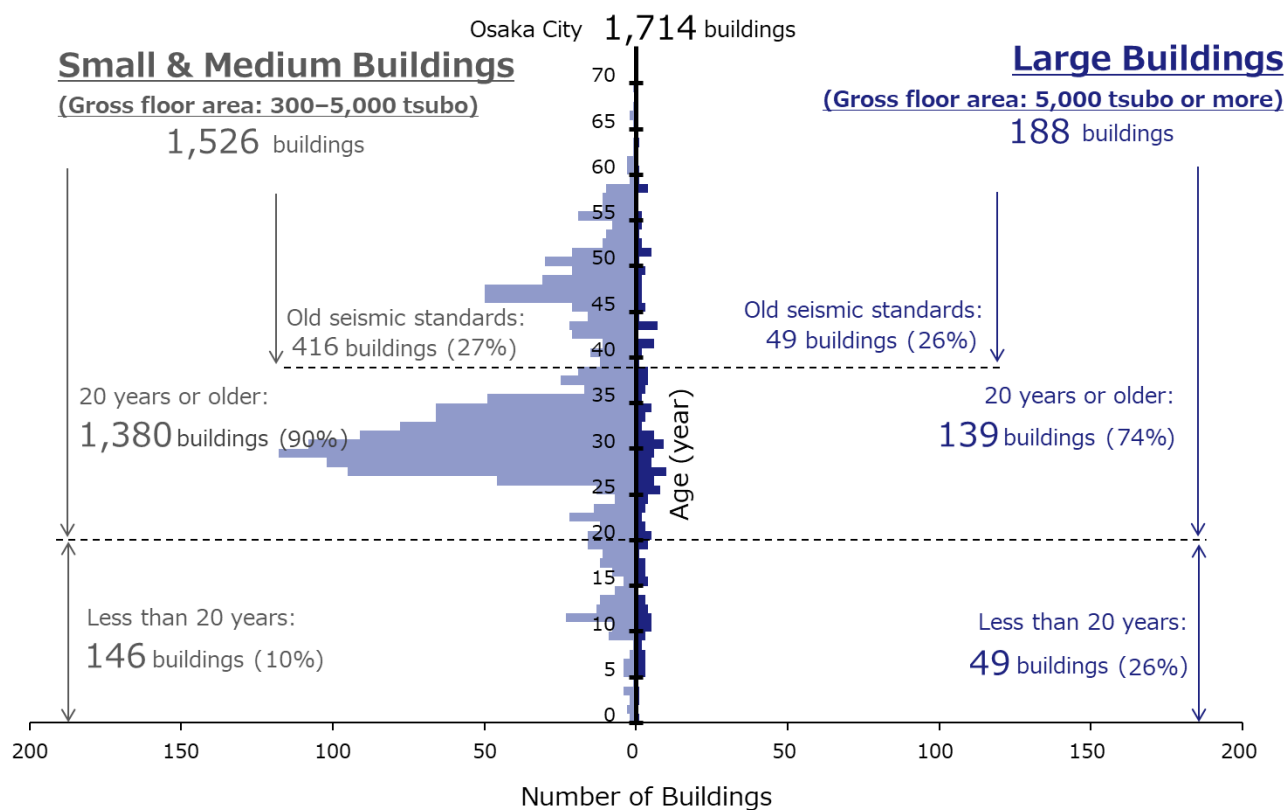


Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

In terms of the number of buildings, the entire office stock of Osaka City will be 1,714 buildings, of which small & medium buildings amount to 1,526 buildings (89%) and large buildings number 188 buildings (11%) (Figure 8).

Figure 8: Osaka City Office Pyramid 2020 (Number of Buildings)



Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

4. Comparison with 2000

Tokyo 23 Wards

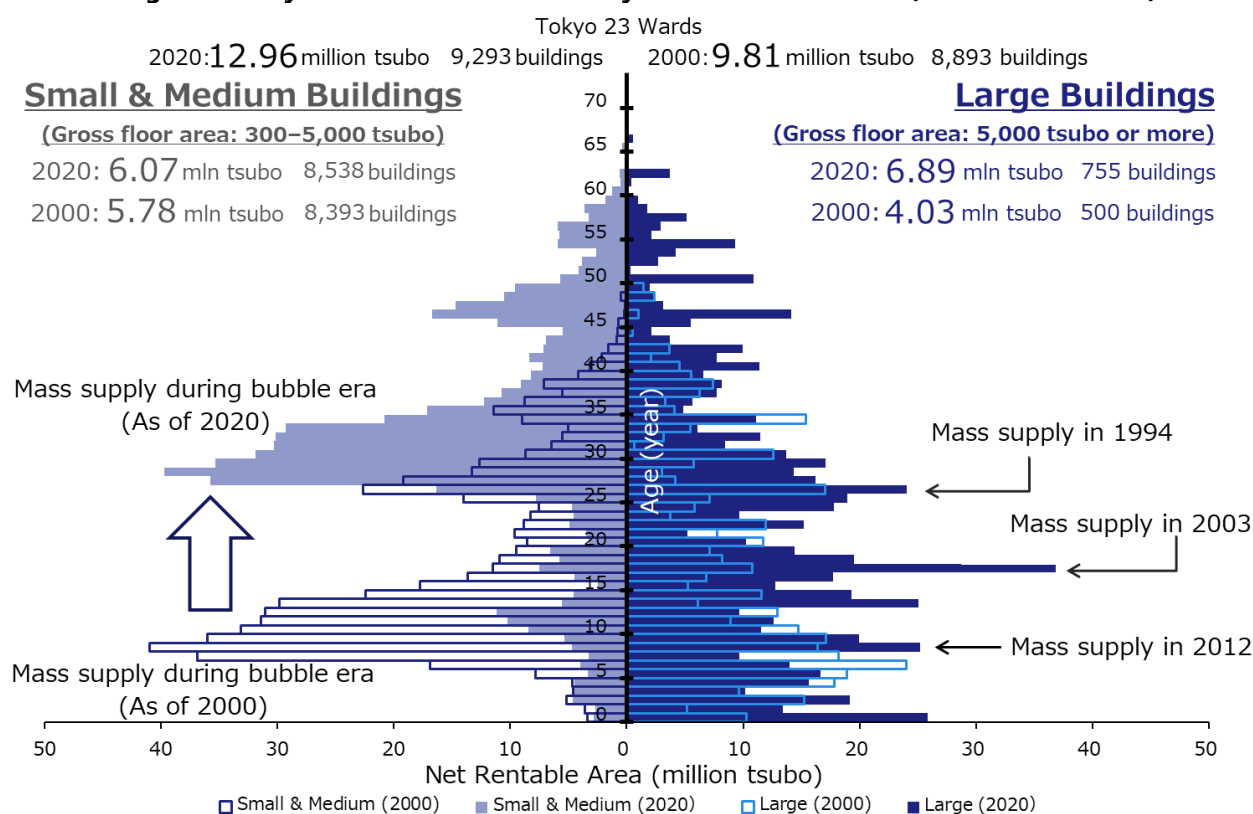
Figure 9 compares the office stock pyramid as of the end of 2000 and as of the end of 2020 in Tokyo 23 Wards. In the entire Tokyo 23 Wards, the office stock will increase by 3.15 million tsubo (32%) on a rentable area basis between 2000 and 2020 and by 400 buildings (4%) on a number of buildings basis.

By building size, large buildings continued to see a certain amount of supply even after the burst of the bubble economy, increasing by 2.86 million tsubo (71%) on a rentable area basis and by 255 buildings (51%) on a number of buildings basis.

Meanwhile, small & medium buildings have been seeing a low level of supply since the mass supply during the bubble era, increasing by 0.29 million tsubo (5%) of rentable area and by 145 buildings (2%).

In terms of the average building age, small & medium buildings have aged rapidly between 2000 and 2020, rising from 16.7 years to 32.3 years, while large buildings only saw a rise of about seven years from 17.0 years to 23.6 years.

Figure 9: Tokyo 23 Wards Office Stock Pyramid 2000 and 2020 (Net Rentable Area)



Office Stock Pyramid 2020

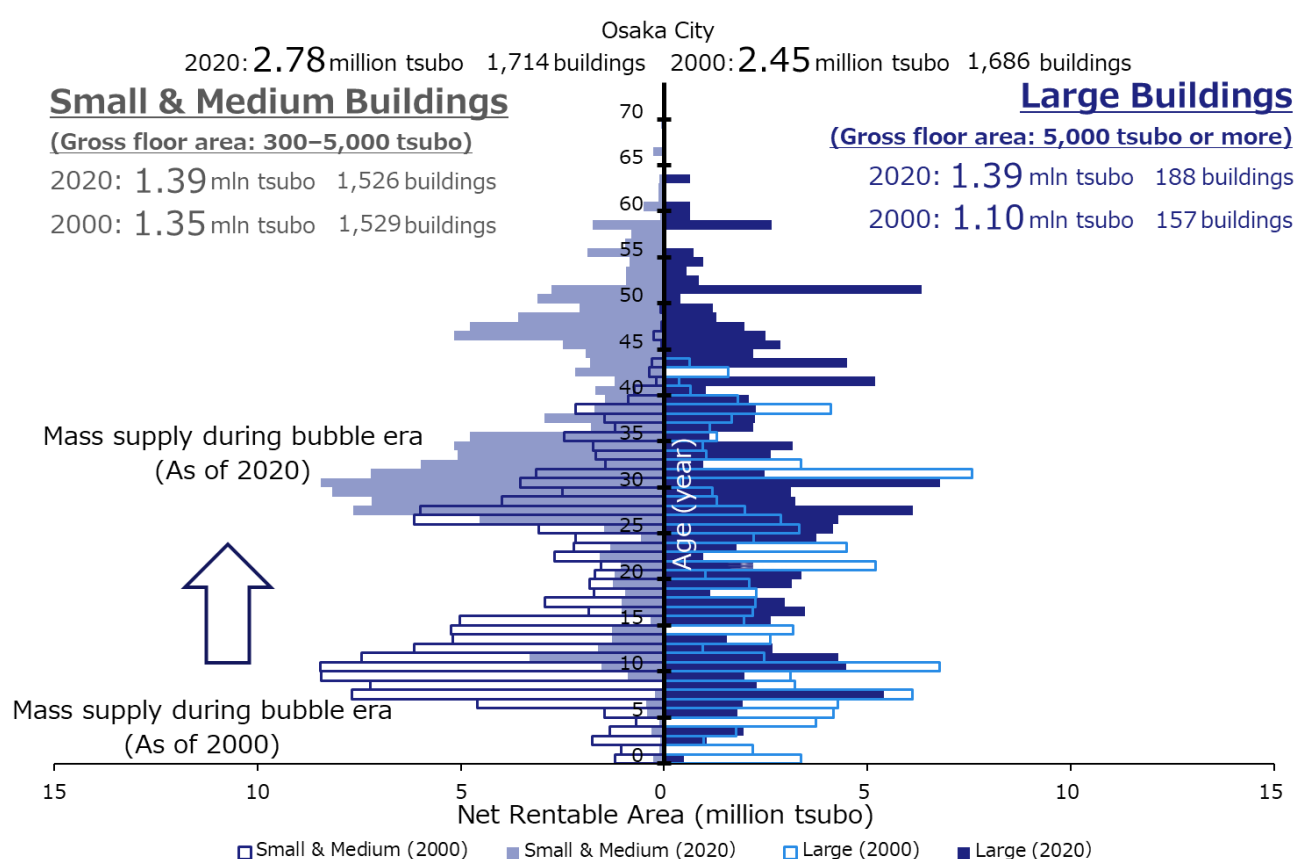
The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

Osaka City

Figure 10 compares the office stock pyramid as of the end of 2000 and as of the end of 2020 in Osaka City. Office stock will increase by 0.33 million tsubo (13%) on a rentable area basis between 2000 and 2020 and by 28 buildings (2%) on a number of buildings basis.

Since new supply has been few, the office stock is aging, with the average building age rising among small & medium buildings between 2000 and 2020 from 16.6 years to 33.3 year, and from 17.5 years to 29.2 years among large buildings.

Figure 10: Osaka City Office Stock Pyramid 2000 and 2020 (Net Rentable Area)



Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.

Survey Overview

Survey Timing	December 2019
Coverage	23 wards of Tokyo, city of Osaka
Target properties	Office buildings with a gross floor area of 300 tsubo or more, completed (or scheduled to be completed) in or after 1946 and used mainly as office space as of end of 2020
Target data	The number and lease office area (tsubo) of large and small & medium office buildings. Large buildings: Gross floor area of 5,000 tsubo or more Small & medium buildings: Gross floor area of at least 300 tsubo and less than 5,000 tsubo

- * The data were collected from properties whose date of construction is known based on publicly available information such as newspaper articles and for-rent information (including that of the past). Owner-occupied buildings were excluded.
- * The data of reconstructed or demolished buildings have been collected and reflected to the extent possible.
- * The sum figures may not match due to rounding.
- * The figures of this survey are the aggregated figures as of the date of the survey. Since information is added and updated on a daily basis, any differences from figures published in the previous year are not necessarily due to new construction or demolition.
- * The office stock in 2020 includes buildings whose scheduled completion date is known as of December 2019.
- * The rentable area represents such area, if published, and if not, the area estimated from gross floor area based on a formula jointly developed with Naoki Kato Lab, Architecture and Architectural Engineering, Kyoto University Graduate School of Engineering.
- * "Old seismic standard" buildings refer to buildings constructed with the design method prior to the enforcement of the Revised Seismic Design Method of 1981. In this report, they refer to buildings completed in and before 1981.

Please contact below for inquiries on this report

Xymax Real Estate Institute
<https://soken.xymax.co.jp>
E-MAIL: info-rei@xymax.co.jp

Office Stock Pyramid 2020

The contents of this report are as of the time of writing. Xymax Real Estate Institute does not guarantee their accuracy or completeness. This report may not be reproduced, cited, transmitted, distributed, or reprinted without prior permission of Xymax Real Estate Institute. Copyright © 2020 Xymax Real Estate Institute Corporation. All rights reserved.