

## Will Office Space Shrink Due to Hybrid Work?

Workplace strategy should consider the main office and telework integrally

September 9, 2022

### Introduction

Following the outbreak of the COVID-19 pandemic, the rapid spread of telework and a reduction in large companies' office space have been reported by the media symbolically, giving rise to expectations that office demand will shrink in the future. According to a company survey carried out in April 2022 by Xymax Real Estate Institute (hereinafter, Xymax REI),<sup>\*1</sup> companies' intended, post-pandemic coming-to-office ratio, i.e., the percentage of employees coming to the office to work, was 68.3% on average (coming to the office for about three days out of five days a week and teleworking for the rest of the days), with many companies intending to embrace hybrid work, which combines coming to the office and teleworking. As this result indicates, it would be fair to think that the necessary office space will decrease if the coming-to-office ratio remains less than 100%.

In the same survey, however, the percentage of companies that "want to expand" their office space in the future (12.0%) exceeded that of companies that "want to downsize" (10.7%) for the first time in three years. Although the coming-to-office ratio will be lower than before the pandemic, the trend of office space is not downsizing across the board but includes not a small percentage of companies that intend to expand their office.

If office demand will not decline that much despite a drop in the coming-to-office ratio, what other factors are affecting the increase or decrease in office space? Previously, the number of office users and companies' business sentiment would have had a large impact. However, now that the number of employees coming to the office has become volatile due to the spread of telework, there may be other factors that impact the change in office size.

To examine this question, we looked at the characteristics of companies in the 23 wards of Tokyo, which have an especially high introduction rate of telework, that want to expand the space of their main office<sup>\*2</sup> and the characteristics of the companies that want to reduce it in Chapter 1 of this report, and used a logistic regression analysis to explore the factors that affect companies' intentions to increase or reduce office space in Chapter 2. We hope this report would provide food for thought in forecasting office demand after the pandemic, when hybrid work may become the mainstream.

<sup>\*1</sup> *Metropolitan Areas Office Demand Survey Spring 2022 – (1) Demand Trends*, released on June 15, 2022  
[https://www.xymax.co.jp/english/research/images/pdf/20220615\\_1.pdf](https://www.xymax.co.jp/english/research/images/pdf/20220615_1.pdf)

*Metropolitan Areas Office Demand Survey Spring 2022 – (2) Work Styles and the Workplace*, released on June 15, 2022  
[https://www.xymax.co.jp/english/research/images/pdf/20220615\\_2.pdf](https://www.xymax.co.jp/english/research/images/pdf/20220615_2.pdf)

<sup>\*2</sup> To distinguish from satellite offices, which are places for telework, we refer to the conventional office where employees congregate as the "main office," and the floor area of the main office as "office space" in this report.

## Summary

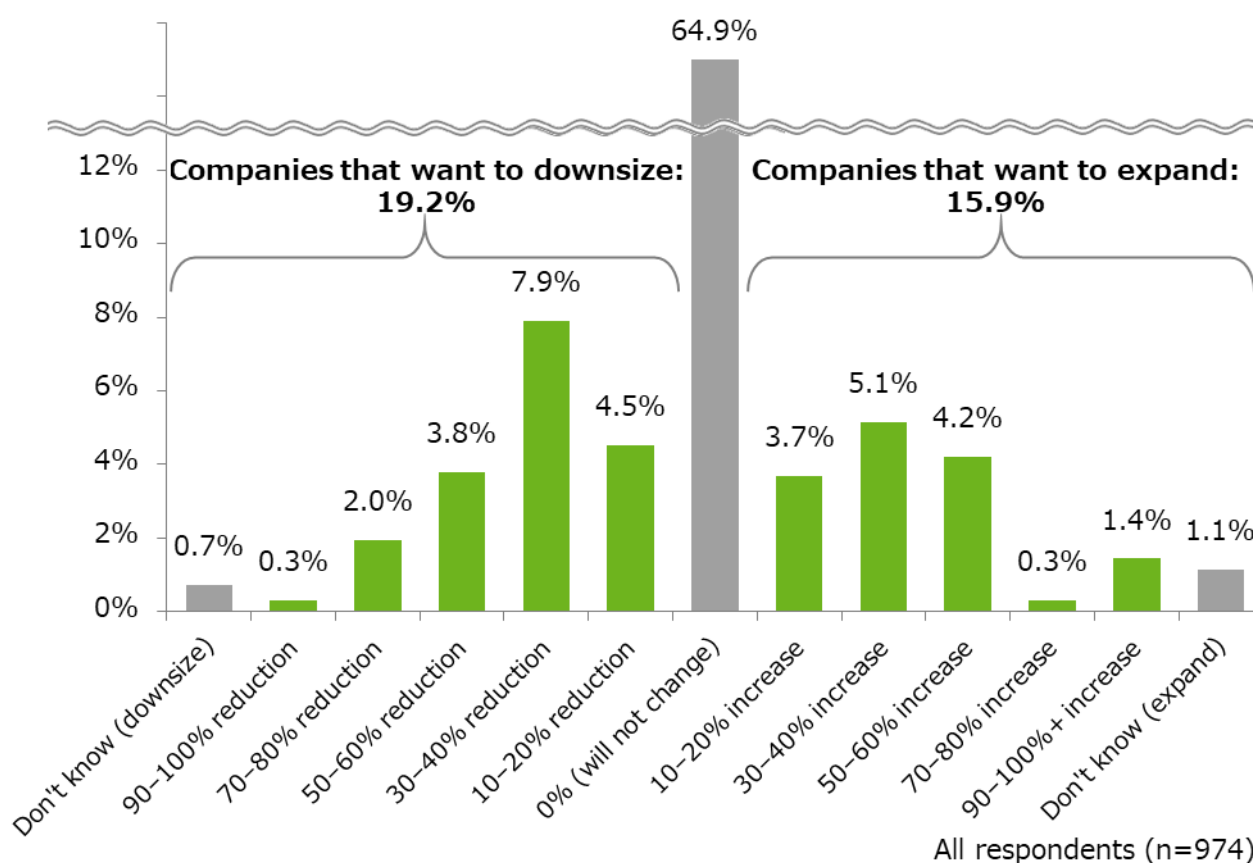
- The most popular range of companies' intended increase or reduction in office space from the current level was "30–40% reduction" (7.9%), followed by "30–40% increase" (5.1%).
- As for companies' intentions on office space by the number of employees, large companies with 1,000 employees or more showed a relatively large percentage of "Want to downsize" (28.7%), while by sector, the information & communications sector and the manufacturing sector showed relatively large percentages of wanting to downsize, at 26.7% and 24.6%, respectively. However, company attributes do not seem to have a large impact on companies' intentions to expand or downsize their office.
- The percentage of companies that "want to increase the share of flexible desks" in their office layout going forward was 58.8% among companies that want to downsize their office and 39.4% among those that want to expand. Both percentages were larger than the percentage among companies that will not change their office size (22.5%).
- As for the location of the workplace, companies that want to downsize their office were more oriented toward hybrid work, with companies intending to "keep HQ functions in the city center and disperse workplaces in the suburbs (including work-from-home)" accounting for 57.8%. Companies that want to expand their office had relatively strong intentions to "consolidate workplaces in the city center" (28.4%).
- An analysis of the impact of new installations of office layouts on companies' intentions on office space suggests that intentions to newly install "hot-desking," "booth or private room for remote meetings," "open meeting space" and "booth or private room dedicated to making phone calls" raise the probability of companies wanting to expand or downsize their office.
- Similarly, the analysis suggests that intentions to "newly establish a satellite office provided by a dedicated operator" raise the probability of companies wanting to expand their office space as well as the probability of companies wanting to downsize.

# 1. Characteristics of Companies by Intentions on Office Space

In this chapter, we examine the characteristics of companies that want to expand their office space and those of companies that want to downsize. To capture the characteristics accurately by obtaining as many samples as possible, we aggregated the data of the Spring 2021 and Spring 2022 surveys, adopting the data of the Spring 2022 survey if a respondent answered in both surveys, and examined the 974 samples that had no missing answers used in the analysis. The breakdown of the intentions on office space is 155 samples (15.9%) for "Want to expand," 632 samples (64.9%) for "Will not change" and 187 samples (19.2%) for "Want to downsize."

**Figure 1** shows the distribution of the percentage of an increase or reduction in office space companies that want to either expand or downsize their office actually want compared to their current office space. The most popular range of companies' intended increase or reduction in office space was "30–40% reduction" (7.9%), followed by "30–40% increase" (5.1%).

**Figure 1: Distribution of Intention to Increase or Reduce Office Space from Current Level**



We will then examine the basic company attributes in **Figure 2**. In terms of the number of employees, large companies with 1,000 employees or more showed a relatively large percentage of “Want to downsize” (28.7%), but the difference between different company sizes was not significant.

In terms of sector, although “Want to downsize” was relatively strong in the information & communications sector (26.7%) and the manufacturing sector (24.6%) and “Want to expand” was relatively strong in the wholesale & retail trade sector (19.9%), the difference between sectors was again, not huge. Company attributes do not seem to have a large impact on companies’ intentions to increase or reduce their office space.

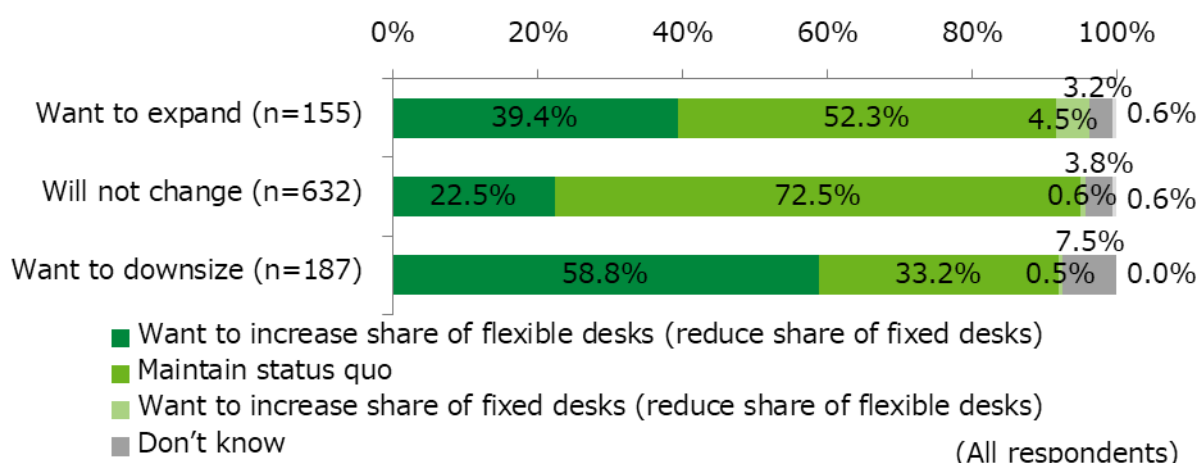
**Figure 2: Intention on Office Space – By Number of Employees and Sector**

		Want to expand	Will not change	Want to downsize
Number of employees	Less than 100 (n=550)	14.9%	67.5%	17.6%
	100–999 (n=309)	19.1%	62.5%	18.4%
	1,000 or more (n=115)	12.2%	59.1%	<b>28.7%</b>
Sector	Services, not elsewhere classified (n=233)	16.7%	63.1%	20.2%
	Information & communications (n=165)	17.6%	55.8%	<b>26.7%</b>
	Wholesale & retail trade (n=141)	<b>19.9%</b>	66.0%	14.2%
	Manufacturing (n=114)	7.0%	68.4%	<b>24.6%</b>
	Scientific research, professional & technical services (n=70)	10.0%	68.6%	21.4%
	Construction (n=54)	13.0%	75.9%	11.1%
	Finance & insurance (n=33)	12.1%	<b>81.8%</b>	6.1%
Total (n=974)		15.9%	64.9%	19.2%

Note: Other sectors (n=164) have been omitted

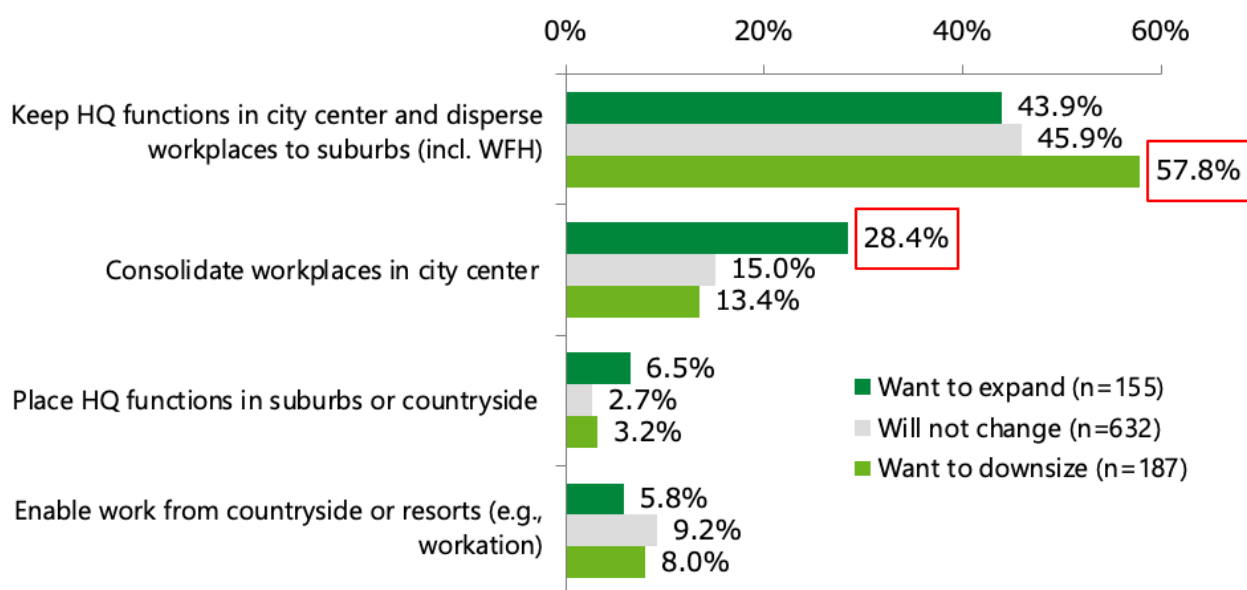
Next, we compare companies’ use of the office. In terms of the share of fixed desks and flexible desks in the main office, the percentage of companies that “want to increase the share of flexible desks” was 39.4% among companies that want to expand their office space and 58.8% among companies that want to downsize. Both percentages were larger than the percentage among companies that will not change their office size (22.5%) (**Figure 3**). This suggests that companies intending to change their office size is trying to use their space more efficiently, irrespective of whether they want to expand or downsize.

**Figure 3: Share of Fixed Desks and Flexible Desks (Intention) – By Intention on Office Space**



However, there are different characteristics in the direction of office strategies between companies that want to expand their office and companies that want to downsize. For example, when we look at companies' views toward the location of the workplace, companies that want to downsize are more oriented toward hybrid work, which involves keeping HQ functions in the city center and dispersing workplaces to the suburbs (including work-from-home) (57.8%). On the other hand, companies that want to expand have relatively strong intentions to "consolidate workplaces in the city center" (28.4%) (Figure 4).

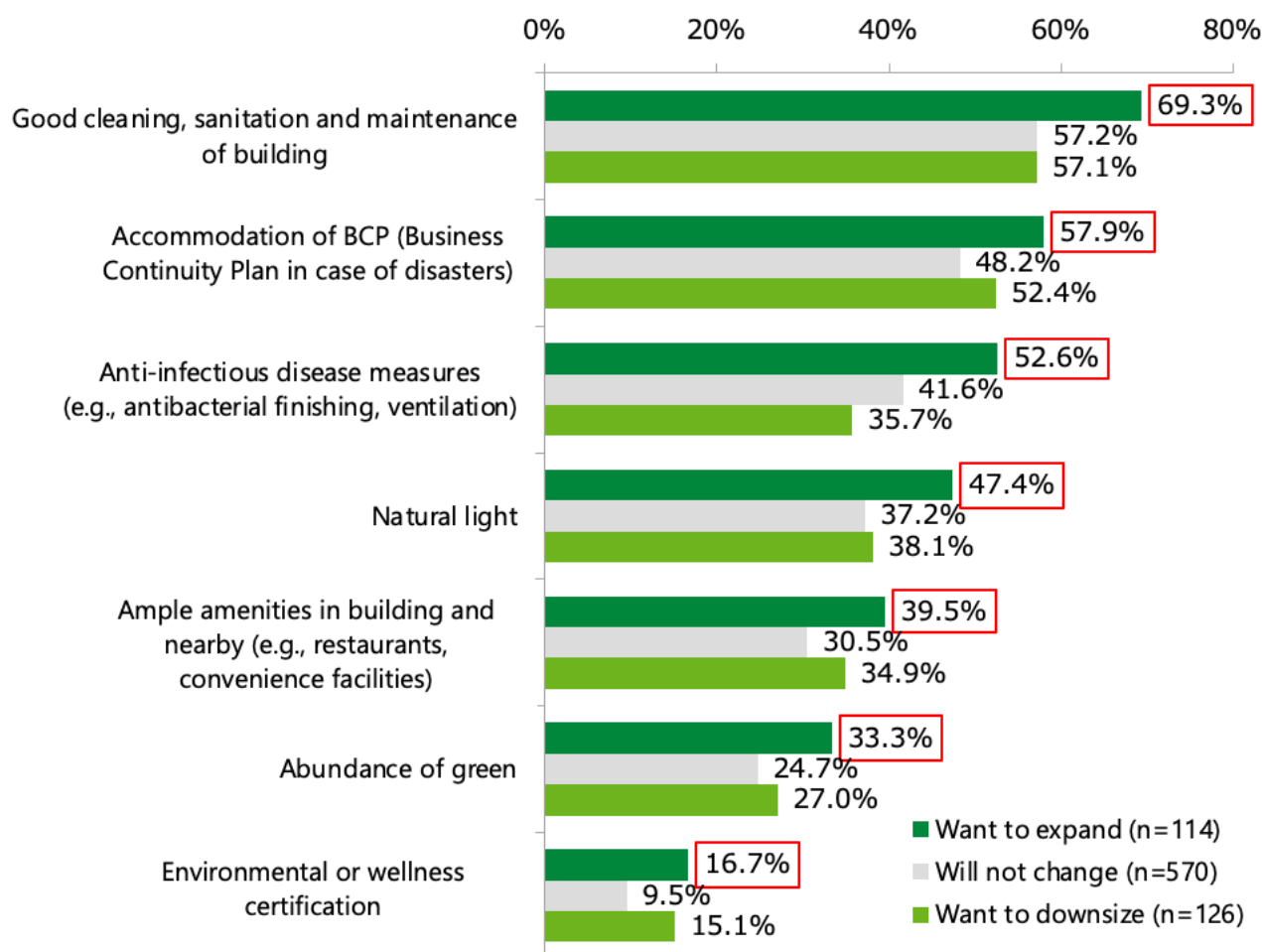
**Figure 4: Views on Location of Workplace – By Intention on Office Space**



(All respondents; excerpt; MA)

Although only based on the Spring 2022 survey and thus for reference only, **Figure 5** shows that companies that want to expand their office tend to require elements related to well-being in the building of their main office more than other companies.

**Figure 5: Requirements in the Building for the Main Office – By Intention on Office Space (Spring 2022 Survey Only)**



(All respondents excluding "Don't know" in intention on office space; excerpt of elements related to well-being; MA)

To sum up the tendencies by intentions on office space, companies that want to downsize seem to have greater awareness toward enhancing flexibility, reducing redundancies and improving space efficiency in office strategies, with around 60% replying that they "want to increase the share of flexible desks" going forward (**Figure 3**) and with the lowest intended future desk sufficiency rate<sup>\*3</sup> (an average of 70%) among the three groups of companies (**Reference 1** at the end of the report). On the other hand, companies that want to expand their office seem to have greater awareness toward value-added factors such as the well-being of employees and comfort.

\*3 The percentage of the number of desks to one worker occupying the office. A desk sufficiency rate of 70% means there are 0.7 desks to one worker.

## 2. Factors that Impact Intentions on Office Space

In Chapter 2, we conducted a logistic regression analysis with the explained variable being the intention on office space and the explanatory variables being company attributes and workplace-related measures, in order to explore the factors that impact companies' intentions to expand or downsize their office other than the number of users and companies' business sentiment (see **Reference 2** at the end of the report for details of the analysis).

**Figure 6** shows the results of the analysis. In order to confirm the impact of, in particular, workplace-related measures on companies' intentions on office space, we extracted companies' "intention to newly install various office layouts (intention to introduce in the future though currently uninstalled)" and "intention to newly establish a satellite office provided by a dedicated operator (same as above)" from the explanatory variables (see **Reference 3** for details of the results). The figures represent odds ratios: the larger the figure is than 1 (and with an asterisk), the more likely companies will want to increase or reduce their office space due to intentions to newly install or establish the workplace measure. On the contrary, the less the figure is than 1, the less likely.

**Figure 6: Impact of Intention to Newly Install Office Layout or Establish Satellite Office Provided by a Dedicated Operator on Intention to Expand or Downsize**

		Explained variable	
		Want to expand	Want to downsize
Explanatory variable (excerpt)	Intention to newly install layout		
	Hot desking	1.62 *	2.76 ***
	Group hot desking	1.29	1.22
	Open meeting space	1.40	2.36 ***
	Booth or private room for remote meetings	2.23 ***	1.25
	Booth or private room for making phone calls	1.36	1.72 **
	Space for concentrating	1.19	0.81
	Canteen, café space	2.60 ***	0.76
	Space for refreshing	1.12	0.93
	Space for collaborating with outside parties	0.54	1.14
Intention to newly establish satellite office provided by dedicated operator		1.78 **	1.59 *

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

**Figure 6** indicates that, with regard to office layouts, the probability of intending to expand and the probability of intending to downsize both rise significantly if the company has an intention to newly install "hot-desking." Therefore, new installment of hot-desking seems to be the basic strategy when revamping the main office. Apart from this, we have found that intentions to newly install a "booth or private room for remote meetings" or a "canteen or café space" have a positive effect on intentions to expand the office, and intentions to newly install "open meeting space" or a "booth or private room dedicated to making phone calls" positively affect companies' intentions to downsize their office. These results suggest a possibility that intentions to newly install flexible office layouts raise the likelihood of companies wanting to increase or reduce their office space.

We also want to pay attention to the point that companies' "intention to newly establish a satellite office provided by a dedicated operator" has a positive impact on their intentions to both expand and to downsize. This implies the possibility that the introduction of a satellite office, which is a measure outside the main office, affects changes in office size. It is also implied that the introduction of a satellite office, which is usually expected to take place in tandem with a downsizing of the main office, may actually raise the possibility of not only wanting to downsize but also to expand the office.

A logistic regression analysis can assess the impact of each explanatory variable on the explained variable if the other explanatory variables are fixed. In our analysis, we added companies' business sentiment, number of employees, sector, and changes in the future number of office occupants to the explanatory variable. Therefore, the impact of new office layouts and satellite offices has been estimated in consideration of the impact of these company attributes. Apart from the explanatory variables presented in **Figure 6**, an increase in the number of office occupants had a significant positive impact on intentions to expand the office, while weak business sentiment, being a large company, and being in the information & communications sector had the same impact on intentions to downsize.

### 3. Summary

Our analysis indicates that companies with an intention to take some kind of action toward improving the workplace have stronger intentions to either increase or reduce their office space compared to companies that do not intend to take such actions. Since we have found that the new establishment of satellite offices, in particular, tends to lead not only to downsizing the main office but also to expanding it, our analysis suggests that the improvement of the workplace not only involves the main office, but may also involve places for telework, such as satellite offices. We believe that satellite offices have become a means for advancing workplace strategies integrally as they increase workplace options for hybrid work.

Following the outbreak of the COVID-19 pandemic, Tokyo's office market has entered a declining phase where vacancy rates rise and rents drop, and telework has been viewed as a factor for suppressing office demand. A major impact on the market is had from the developments at large companies, who rent large office space. Indeed, large companies with 1,000 employees or more show a relatively large percentage of wanting to downsize their office (**Figure 2**). However, large companies also have a high introduction rate of satellite offices: according to our Spring 2022 survey,<sup>\*4</sup> more than 40% have introduced a satellite office. In other words, demand for floor space seems to shrink if we only looked at conventional demand indicators that are based on companies' main offices, but space suited for work will also be required for telework, which leads us to believe that there is a possibility that the total demand for offices, including alternative workplaces such as satellite offices, will increase instead.

The *Flexible Office Market Survey*,<sup>\*5</sup> which Xymax REI has been releasing regularly since 2020, also shows that flexible offices are on a steady rise in both number and total area. To understand the true post-pandemic workplace demand, we will need to look at the full picture of the diverse range of workplaces that not just includes rental office buildings in city centers. Xymax REI will continue to provide data to that end.

<sup>\*4</sup> *Metropolitan Areas Office Demand Survey Spring 2022 – (2) Work Styles and the Workplace*, released on June 15, 2022  
[https://www.xymax.co.jp/english/research/images/pdf/20220615\\_2.pdf](https://www.xymax.co.jp/english/research/images/pdf/20220615_2.pdf)

<sup>\*5</sup> *Flexible Office Market Survey 2022*, released on February 25, 2022  
<https://www.xymax.co.jp/english/research/images/pdf/20220225.pdf>

### Survey Overview

<b>Survey title</b>	Metropolitan Areas Office Demand Survey Spring 2022 <a href="https://www.xymax.co.jp/english/research/images/pdf/20220615_1.pdf">https://www.xymax.co.jp/english/research/images/pdf/20220615_1.pdf</a> <a href="https://www.xymax.co.jp/english/research/images/pdf/20220615_2.pdf">https://www.xymax.co.jp/english/research/images/pdf/20220615_2.pdf</a>
<b>Survey period</b>	April 12–24, 2022
<b>Target respondents</b>	44,324 companies in total that include the following: <ul style="list-style-type: none"> <li>• Tenant companies in office buildings managed by the Xymax Group</li> <li>• Companies subscribing to ZXY, a satellite office service for corporations</li> <li>• Client companies of XYMAX INFONISTA Corporation</li> </ul>
<b>Number of valid answers</b>	1,537; response rate: 3.5%
<b>Geographical coverage</b>	Nationwide (Tokyo, Osaka, Aichi, Fukuoka, Kanagawa, Saitama, Chiba prefectures and others)
<b>Survey method</b>	Email

<b>Survey title</b>	Metropolitan Areas Office Demand Survey Spring 2021 <a href="https://www.xymax.co.jp/english/research/images/pdf/20210609.pdf">https://www.xymax.co.jp/english/research/images/pdf/20210609.pdf</a>
<b>Survey period</b>	April 13–25, 2021
<b>Target respondents</b>	42,616 companies in total that include the following: <ul style="list-style-type: none"> <li>• Tenant companies in office buildings managed by the Xymax Group</li> <li>• Companies subscribing to ZXY, a satellite office service for corporations</li> <li>• Client companies of XYMAX INFONISTA Corporation</li> </ul>
<b>Number of valid answers</b>	1,648; response rate: 3.9%
<b>Geographical coverage</b>	Nationwide (Tokyo, Osaka, Aichi, Fukuoka, Kanagawa, Saitama, Chiba prefectures and others)
<b>Survey method</b>	Email

## Reference Materials

### Reference 1: Office space per office occupant, office space per worker coming to the office, desk sufficiency rate (actual and intention), coming-to-office ratio (actual and intention)

These indicators also suggest that companies with an intention to change their office size, whether to expand or to downsize, are trying to use their space efficiently according to the fluctuation in the number of workers coming to the office due to telework.

(1 tsubo = approx. 3.33 sqm)

		Want to expand (n=155)	Will not change (n=632)	Want to downsize (n=187)
Office space per office occupant*6		2.5 tsubo	3.2 tsubo	3.3 tsubo
Office space per worker coming to the office*7		3.7 tsubo	5.5 tsubo	7.0 tsubo
Desk sufficiency rate	Actual	100%	110%	109%
	Intention	80%	100%	70%
Coming-to-office ratio	Actual	68%	62%	52%
	Intention	73%	70%	58%

\*6 Office space per office occupant (worker who occupies the relevant office)

\*7 Office space per worker coming to the office (one out of the average number of workers who have come to the office at the time of the survey)

### Reference 2: Variables of the logistic regression analysis conducted in Figure 6

Variable	Description	Unit
Want to expand dummy	"1" if intention on office space is "Want to expand;" "0" if "Will not change"	(0,1)
Want to downsize dummy	"1" if intention on office space is "Want to downsize;" "0" if "Will not change"	(0,1)
Companies' business sentiment dummy	"1" if "Somewhat bad" or "Bad;" "0" if not	(0,1)
Future no. of office occupants dummy	"1" if "Will increase;" "0" if not	(0,1)
No. of employees dummy	"1" if 1,000 or more, "0" if not	(0,1)
Sector	The following eight sectors: "Services, N.E.C.," "information & communications," "wholesale & retail trade," "manufacturing," "scientific research, professional & technical services," "construction," "finance & insurance," "other sectors"	-
Intention on post-pandemic coming-to-office ratio	The following three groups: 0%–39% (telework), 40%–59%, 60%–99% (come to office)	-
New layout installation intention dummy	"1" if the company has not introduced the office layout but would like to do so in the future; "0" if not	(0,1)
Intention to newly establish satellite office provided by dedicated operator dummy	"1" if the company has not introduced a satellite office provided by a dedicated operator but would like to do so in the future; "0" if not	(0,1)

Reference 3: Details of the analysis results of Figure 6 (figures represent odds ratios)

		Explained variable		
		Want to expand	Want to downsize	
Explanatory variable	Business sentiment: Weak		0.66	1.91 ***
	Future number of office occupants: Will increase		5.81 ***	0.59 **
	Number of employees: 1,000 or more		0.87	1.99 ***
	Sector	Services, not elsewhere classified	0.67	1.46
		Information & communications	0.69	2.36 ***
		Wholesale & retail trade	0.65	1.04
		Manufacturing	0.27 ***	1.41
		Scientific research, professional & technical services	0.31 **	1.61
		Construction	0.58	0.83
		Finance & insurance	0.40	0.34
		Intention for coming-to-office ratio: Less than 40% (telework)	0.53 *	1.21
		Intention for coming-to-office ratio: 60% or higher (come to office)	1.21	0.51 ***
	Intention to newly install layout	Hot desking	1.62 *	2.76 ***
		Group hot desking	1.29	1.22
		Open meeting space	1.40	2.36 ***
		Booth or private room for remote meetings	2.23 ***	1.25
		Booth or private room for making phone calls	1.36	1.72 **
		Space for concentrating	1.19	0.81
		Canteen, café space	2.60 ***	0.76
		Space for refreshing	1.12	0.93
		Space for collaborating with outside parties	0.54	1.14
	Intention to newly establish satellite office provided by dedicated operator		1.78 **	1.59 *
Number of samples		787	819	
Log likelihood		-302.33	-380.05	
AIC		650.66	806.10	

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The percentage mix in the charts contained in this report are rounded to the first decimal place and therefore may not add up to 100%.

**For further inquiries please contact below:**

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