

Reflections on Future Commercial Facilities

Insights gained from past store openings and changes going forward

December 24, 2019

Introduction

Since their birth, commercial facilities have played an important role of supporting the society and economy from a wide range of aspects. They are one of the largest assets of the current real estate stock after offices in terms of area and serve as infrastructure that supports the daily lives of local residents. For commercial operators who operate in commercial facilities, they are a place for marketing where the operators can have contact with consumers as well as a profit center where sales and profits are accumulated. And for real estate companies and investors, commercial facilities are an important asset type in real estate investment, with different characteristics and trends from those of offices and housing.

However, commercial facilities in Japan face changes in the socioeconomic environment and in the purchasing behavior of consumers, which have been brought about by an aging and shrinking population, a serious labor shortage, and the progress of e-commerce. The social roles of commercial facilities are being re-examined. In short, commercial facilities have entered an era when business continuity or growth will be difficult unless they addressed these changes flexibly.

In 2017, Credit Suisse predicted that 20–25% of the approximately 1,100 large shopping malls in the United States will disappear by 2022. There have been pessimistic views toward commercial facilities in Japan too, against the backdrop of recent media reports of closures of department stores in regional cities, mass store closures of a major apparel chain, and the withdrawal of a foreign fast fashion chain. “Is Japan’s commercial facility sector really shrinking?” “Will Japan face the same kind of situation as in the U.S?” “What social roles should commercial facilities assume in the future?” While such questions arise, hardly any report exists which multilaterally summarizes the past, present, and future of Japan’s commercial facilities based on data. To answer these questions, it is necessary to gain correct understanding of Japan’s commercial facilities. In this report, we intend to clarify the following subjects:

- I . The Japanese retail sector over the past 40 years**
- II . Comparison of current Japanese and U.S. market environments**
- III . Changes in how commercial facilities have been used in Japan**
- IV . Changes in the environment surrounding Japan’s commercial facilities in the future**
- V . Interviews with players of commercial facilities**

In chapter I, we will introduce how the core business categories and store locations have changed by looking into the past trends of sales and floor space of Japan’s retail sector as well as an overview of the laws and regulations that have affected the openings of commercial facilities. In Chapter II, we will compare the current Japanese and U.S. market environments from a macroeconomic perspective and identify the differences. Chapter III describes how facilities that first opened as a commercial facility have changed in how they are used over the years. In Chapter IV, we will discuss matters that will affect future commercial facilities, such as the aging and shrinking population, the development of e-commerce, and the progress of AI (artificial intelligence) and other digital technologies. Lastly in Chapter V, we will introduce comments obtained from interviews with commercial facility players on topics such as the environment surrounding commercial facilities and the future of commercial facilities.

Through these examinations, we identified the clues to and the appropriate approach for considering the trend of commercial facilities in the near future, including matters to pay attention to in order for Japanese commercial facilities to survive and what usages can be considered when it is difficult for a facility to continue existing as a commercial facility.

We hope this report will be beneficial information for a wide range of players involved in commercial facilities, such as facility owners, developers, and commercial operators.

I. The Japanese retail sector over the past 40 years

The stock of commercial facilities in Japan was formed by completely different factors from office buildings. While a mass supply of buildings during the bubble economy accounts for a large portion of the office building stock,^{*1} new supply continued after the burst of the bubble for commercial facilities, causing the stock to continue expanding. This is a major characteristic of Japan's retail sector.

One of the backgrounds to this phenomenon is that the scale of openings and the changes in the core business categories and locations of commercial facilities in Japan are more affected by laws and regulations and consumers' purchasing behavior than by the economic trend. We will examine this in more detail below.

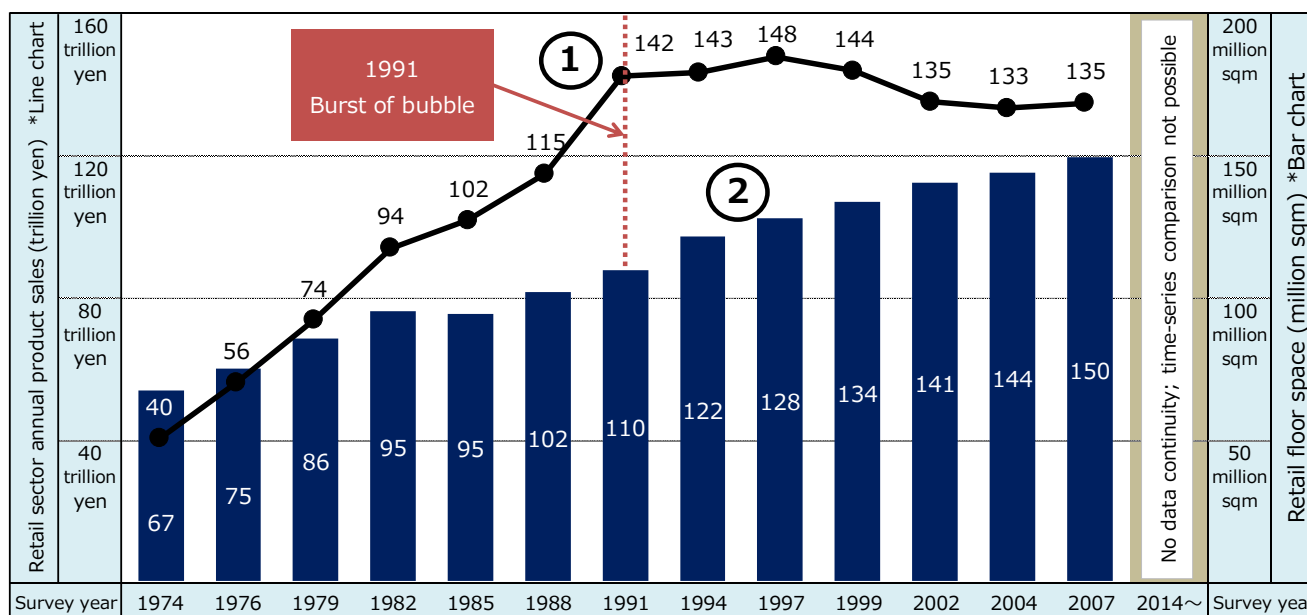
*1 Refer to *TOKYO 23 WARDS | Office Stock Pyramid 2019*, released on January 23, 2019

<https://www.xymax.co.jp/english/research/images/pdf/20190123.pdf>

1. Sales and floor space of the retail sector

We will first look at the sales and sales floor space of Japan's retail sector as a whole. **Figure 1** is a time series chart of the results of the Census of Commerce (sales and sales floor space) conducted by the Ministry of Economy, Trade and Industry (METI). Since the design of the census was significantly revised in 2014, there is no data continuity with the surveys prior to 2007. Therefore, **Figure 1** does not include the survey results of 2014 and onward.

Figure 1: Annual Product Sales and Sales Floor Space of the Retail Sector (Census of Commerce)



Source: Compiled by Xymax Real Estate Institute based on the Census of Commerce by METI

The following trend can be identified for sales and floor space from **Figure 1**.

- 1) The growth of the retail sector, which had increased its sales consistently until the burst of the bubble, has become flat since the bubble burst (**Figure 1-①**, line chart).

- 2) Meanwhile, the floor space has been expanding (Figure 1-②), resulting in a continuous drop in sales per unit floor space (i.e., sales productivity per square meter).

The background to such transitions of the retail sector includes retailers' strategy of expanding business by increasing sales and market share through the opening of new stores, which was the mainstream especially until the early 2000s, as well as changes in laws and regulations that enabled such business expansion (expanding business through M&A has currently become active).

2. Laws and regulations that have affected store openings

Figure 2 is an overview of the Large-Scale Retail Store Law, a law that regulated the opening of large-scale retail stores, and the Act on the Measures by Large-Scale Retail Stores for Preservation of Living Environment (hereinafter, "Large-Scale Retail Stores Location Act").

Figure 2: Laws and Regulations related to Commercial Facilities

| | | | | |
|-----------------|--|--|--|--|
| Legislation | | | | |
| Main purpose | <ul style="list-style-type: none"> Protecting consumer profit Ensuring appropriate business opportunity for small/medium retailers Normal development of retail sector | | | |
| Adjustment item | <ul style="list-style-type: none"> Maintaining living environment of surrounding areas Sound development of retail sector | | | |
| History | <p>Opening date, store floor space, closing hour, number of non-business days</p> <p>Traffic jam, parking space (cars and bicycles), disaster prevention, noise, waste, community development, etc.</p> | | | |
| Changes | <p>1974: Large-Scale Retail Store Law enforced Tightening phase</p> <p>1990: Large-Scale Retail Store Law Deregulation phase</p> <p>(1998): Promulgation of three community development laws*</p> <p>2000: Large-Scale Retail Store Law abolished, Large-Scale Retail Stores Location Act enforced</p> <p>(2007): Revised City Planning Act enforced</p> <p>*Restricts expansion of large-scale retail stores with gross floor area of more than 10,000 sqm into suburbs</p> | | | |

*Three community development laws: (Revised) City Planning Act, Large-Scale Retail Stores Location Act, Act on Improvement and Vitalization in City Centers

Source: Xymax Real Estate Institute

The Large-Scale Retail Store Law that was in force from 1974 to 2000 can be divided into the tightening phase (1974–1989) and the deregulation phase (1990–2000). During the tightening phase, it was not rare for operators who wished to open a store to abandon their opening plan as they were required to significantly reduce their store space, the most important element when opening a store, by more than 30% during discussions with the local community. There were also cases where the Chamber of Commerce announced to freeze plans of opening a large-scale retail store. This was a period when the Large-Scale Retail Store Law was applied in effect to regulate the opening of large-scale retail stores and protect the local small and medium-sized retailers.

What triggered deregulation was the Japan-U.S. Structural Impediments Initiative (SII) in 1989–1990. In the SII's Final Report (1990), the easing of the Large-Scale Retail Store Law was included as one of the measures to solve the imbalances in international payments. During the 1990s, the implementation of the Large-Scale Retail Store Law was eased in stages, resulting in a significant increase in large-scale retail stores both in floor space and in number.

The Large-Scale Retail Stores Location Act was promulgated in 1998 as one of the three community development laws and was enforced in 2000 to replace the Large-Scale Retail Store Law that was abolished in the same year. The Large-Scale Retail Stores Location Act's objective differs from that of the Large-Scale Retail

Store Law; whereas the former focuses on whether the planned facility takes into consideration the protection of the living environment of local residents, the latter imposed restrictions on the openings and floor space of large-scale retail stores. The Large-Scale Retail Stores Location Act enabled operators to open stores without being faced with the opinions and recommendations from the local community as long as they met the environmental criteria. This led to accelerated openings of large shopping centers (hereinafter, "SCs") especially in the suburbs.

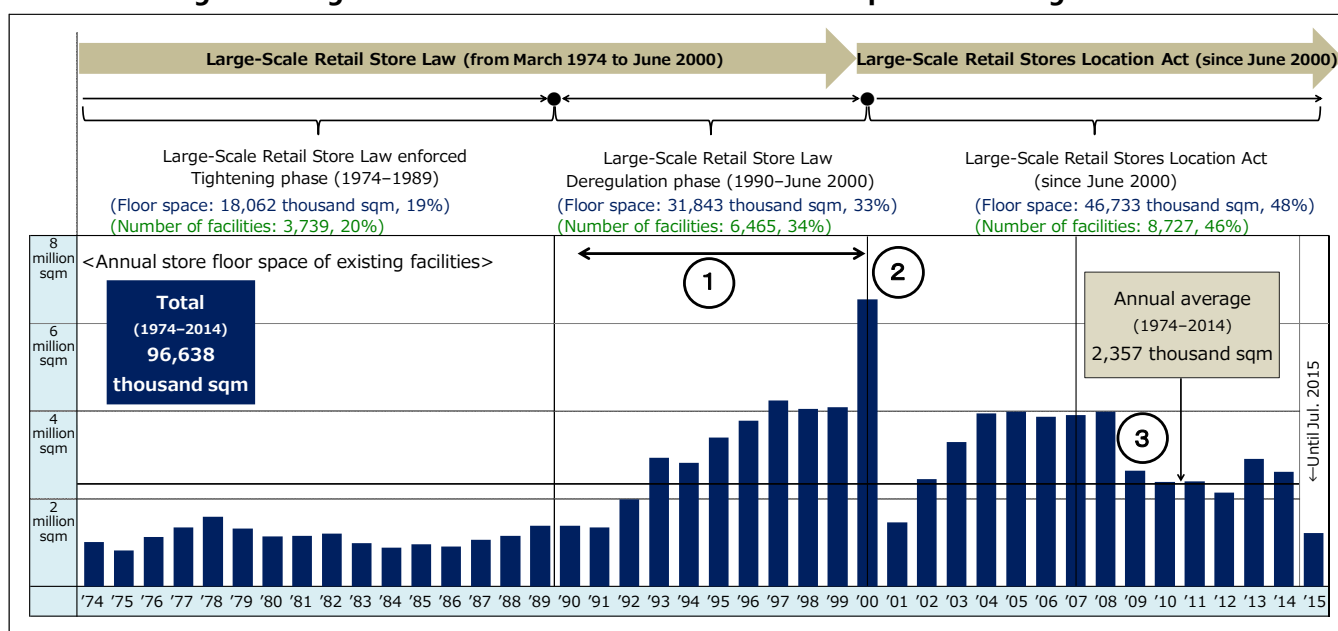
Another law that influences the opening of large-scale retail stores is the Revised City Planning Act, which was enforced in 2007. In the revision, the opening of large-scale retail stores with a gross floor area of more than 10,000 square meters was prohibited in industrial districts, category 2 residential districts, and quasi-residential districts, and was limited to neighborhood commercial districts, commercial districts, and quasi-industrial districts. This was in effect a restriction on large stores' expansion into the suburbs, and the restrictions on the opening of large-scale retail stores were reinforced as a result.

3. Store floor space

Figure 3 indicates each year's store floor space of large-scale retail stores^{*2} that started business in or after 1974 when the Large-Scale Retail Store Law was enforced and were operating in Japan as of July 2015. The characteristics of annual store floor space are as below.

*2 In the analyses of this report, refers to commercial facilities with a retail store space of 1,000 square meters or more, which are subject to the current Large-Scale Retail Stores Location Act.

Figure 3: Large-Scale Retail Stores: Annual Store Floor Space of Existing Facilities



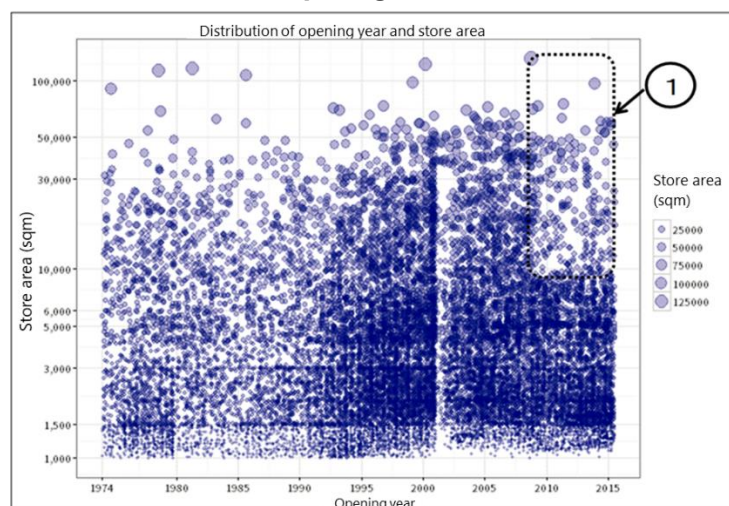
Source: Compiled by Xymax Real Estate Institute based on 2016 Databook of Nationwide Large-scale Retail Stores, Toyo Keizai Inc.

- 1) Store openings have accelerated since the deregulation phase (1990) of the Large-Scale Retail Store Law, resulting in a surge of store space (**Figure 3-①**). There was no over-supply of stores in Japan at the time of the burst of the bubble economy, and operators were highly motivated to open stores.
- 2) The peak of store floor space was in 2000 when the Large-Scale Retail Store Law was abolished and the Large-Scale Retail Stores Location Act was enforced (**Figure 3-②**). Store openings during this period were referred to as "last-minute openings." The reasons why operators rushed to open stores under the Large-Scale Retail Store Law were because stores subject to the Large-Scale Retail Store Law had to open by January 2001 and because operators needed to secure a larger plot of land to open a store of the same floor space as under the Large-Scale Retail Store Law since the Large-Scale Retail Stores Location Act required parking space for up to around 1.5 times the number of cars of that under the Large-Scale

Retail Store Law, which urged operators to take action in order to avoid a rise in costs for providing parking space.

- 3) The store floor space has significantly decreased since 2009 (**Figure 3-③**). This is largely affected by the enforcement of the Revised City Planning Act, as mentioned in "2. Laws and regulations that have affected store openings." **Figure 4** plots the annual store floor space of **Figure 3** (a scatter chart with the time series on the horizontal axis and the store area on the vertical axis). The chart indicates that the number of store openings of a store area (or gross floor area in statutory terms) of 10,000 square meters or more has decreased notably since 2009 (**Figure 4-①**).

Figure 4: Large-Scale Retail Stores—Opening Year and Store Area of Existing Facilities

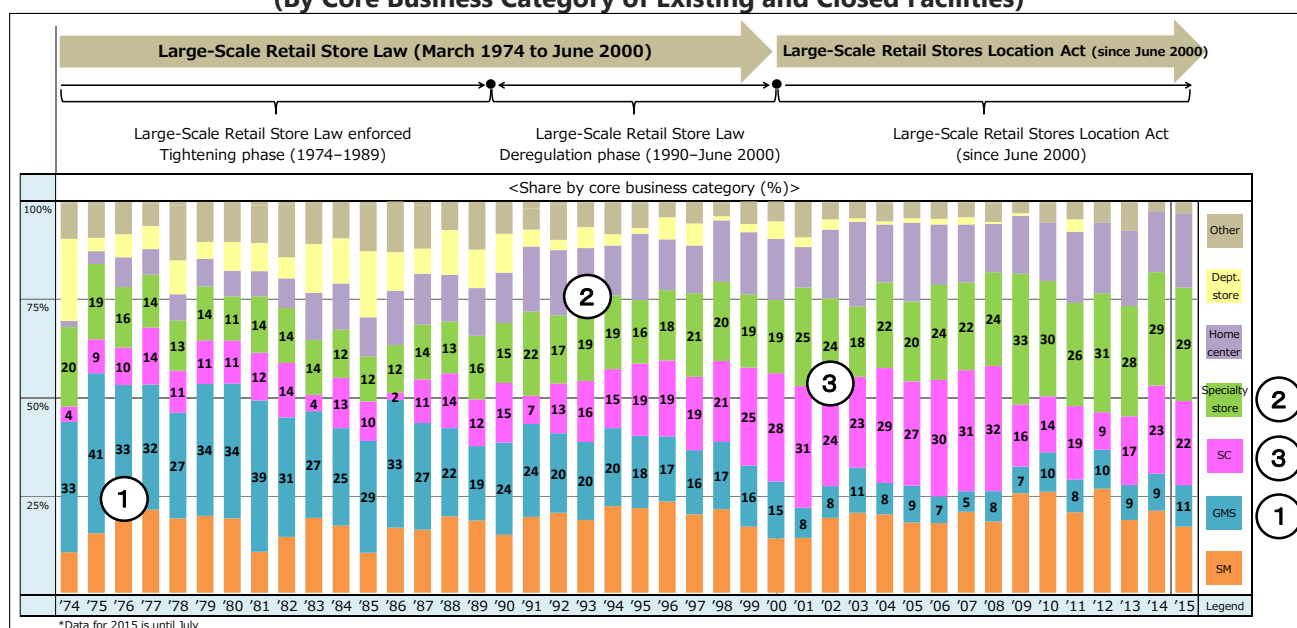


Source: Compiled by Xymax Real Estate Institute based on 2016 Databook of Nationwide Large-scale Retail Stores, Toyo Keizai Inc.

4. Changes in business category

Figure 5 indicates the store floor space (including data of closed facilities that can be obtained from materials) of each year classified by the core business category and expressed in share. The changes of core business categories can be seen from this chart.

**Figure 5: Large-Scale Retail Stores—Floor Space Share
(By Core Business Category of Existing and Closed Facilities)**



Source: Compiled by Xymax Real Estate Institute based on 2012 / 2016 Databook of Nationwide Large-scale Retail Stores, Toyo Keizai Inc.

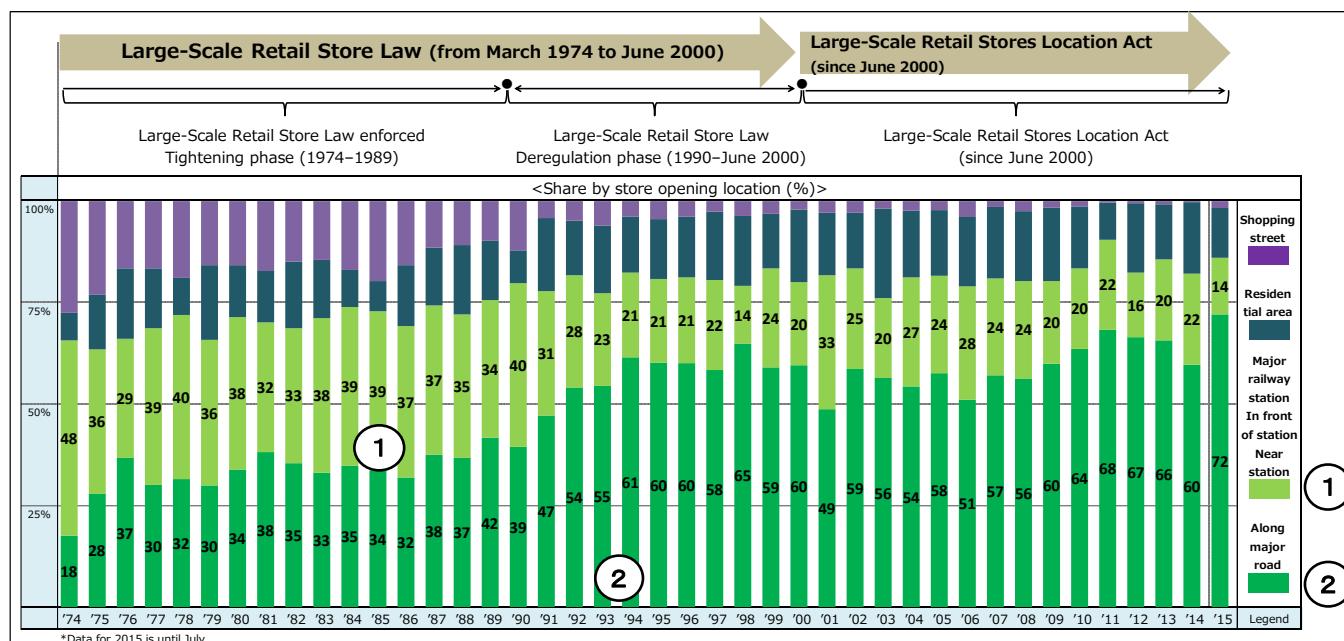
- 1) GMS: Around a third of large-scale retail stores that opened during the 1970s were stores whose core business category was GMS. GMS' floor space share had remained the largest, albeit gradually decreasing, but dropped below specialty stores and SCs in 1996 before falling to 9% in 2014 (**Figure 5-①**).
- 2) Specialty store: This business category has grown rapidly since 1990 for its specialized product line-up that respond to a wide range of life styles and price competitiveness, and stole market share from GMS (**Figure 5-②**). In recent years there has been an increasing number of cases where specialty stores develop and operate shopping centers as a developer.
- 3) SC: This facility format attracts customers and enhances the convenience of consumers through the synergy of a large number of specialty stores under its roof. It has become the mainstay of Japan's commercial facilities since the mid-1990s. Its floor space share remained at around 30% between 2000 (enforcement of the Large-Scale Retail Stores Location Act) and 2008, but has seen a mild decrease since 2009 due in part to the enforcement of the Revised City Planning Act of 2007 (**Figure 5-③**).

Why is GMS, which was the core business category of Japan's commercial facilities until the 1980s, on a declining trend? Various reasons are possible, one of them being the failure to respond to the speed of change in the lifestyle and purchasing behavior of consumers. Amid a transition from low-mix high-volume sales to high-mix low-volume sales, many GMSs that operated in conventional locations of within major railway stations, and in front of and near railway stations, continued to provide a comprehensive range of apparel, food, and housing products despite being unable to ensure a store size required from changes in consumer behavior. As a result, GMSs that could not provide a full product line-up were overshadowed by large SCs, which housed an extensive line-up of specialty stores and provided parking space for a large number of cars, and lost competitiveness.

5. Changes in store opening locations

Figure 6 shows the same data as in **Figure 5** in terms of floor space share by store opening location. The trend of each store opening location is as below.

Figure 6: Large-Scale Retail Stores—Floor Space Share (By Location of Existing and Closed Facilities)



Source: Compiled by Xymax Real Estate Institute based on 2012 / 2016 Databook of Nationwide Large-scale Retail Stores, Toyo Keizai Inc.

- 1) Major railway station, in front of station, near station: These locations had the largest floor space share until the 1980s but has been on a gradual decreasing trend, with the share remaining at around 20% since the 1990s (**Figure 6-①**).
- 2) Along major roads: The share of this location is on the rise, currently exceeding 60%. The rise in share has been especially prominent in and after the 1990s (**Figure 6-②**).

The background to these trends includes the impact of the deregulation of the Large-Scale Retail Store Law and the shift of store opening locations to major roads of the fringes of cities, which are more convenient for consumers due to the progress of motorization. Store opening locations tend to be along major roads after 2000 due to the ability to build large-scale commercial facilities in the suburbs under the Large-Scale Retail Stores Location Act and from the perspective of securing site size and parking space.

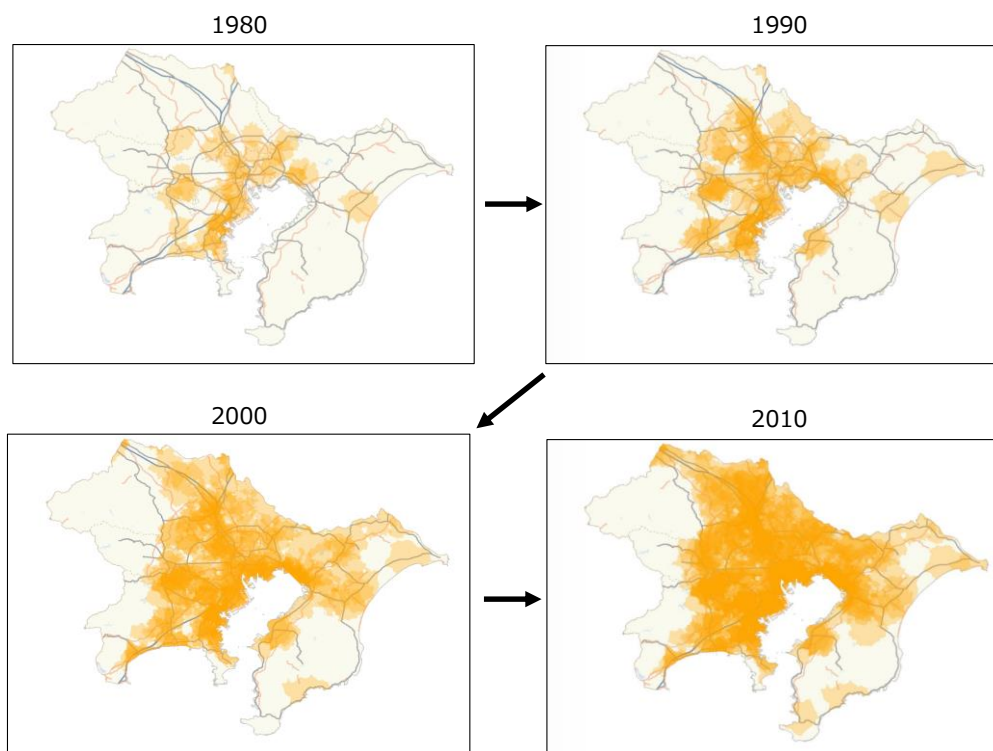
[Reference] Openings of commercial facilities in Greater Tokyo (Tokyo, Kanagawa, Saitama, Chiba prefectures)

Figure 7 plots the areas within 20 minutes' drive by car from commercial facilities with a retail floor space of 10,000 square meters or more operating as of each year in Greater Tokyo (Tokyo, Kanagawa, Saitama, and Chiba prefectures).

These charts indicate that the number of facilities was small in 1980 and that there was still a certain amount of "vacant" space in 1990, prior to the burst of the bubble economy. As we confirmed in **Figure 3**, commercial facilities in Japan started to increase after 1990, when the Large-Scale Retail Store Law was deregulated. The facilities spread to Greater Tokyo by 2000 and saw a further increase in number by 2010.

For many people living in Greater Tokyo today, multiple large-scale commercial facilities seem to exist within 20–30 minutes by car.

Figure 7: Openings of Commercial Facilities in Greater Tokyo (Tokyo, Kanagawa, Saitama, Chiba Prefectures)



Source: Compiled by Xymax Real Estate Institute based on 2016 Databook of Nationwide Large-scale Retail Stores, Toyo Keizai Inc.

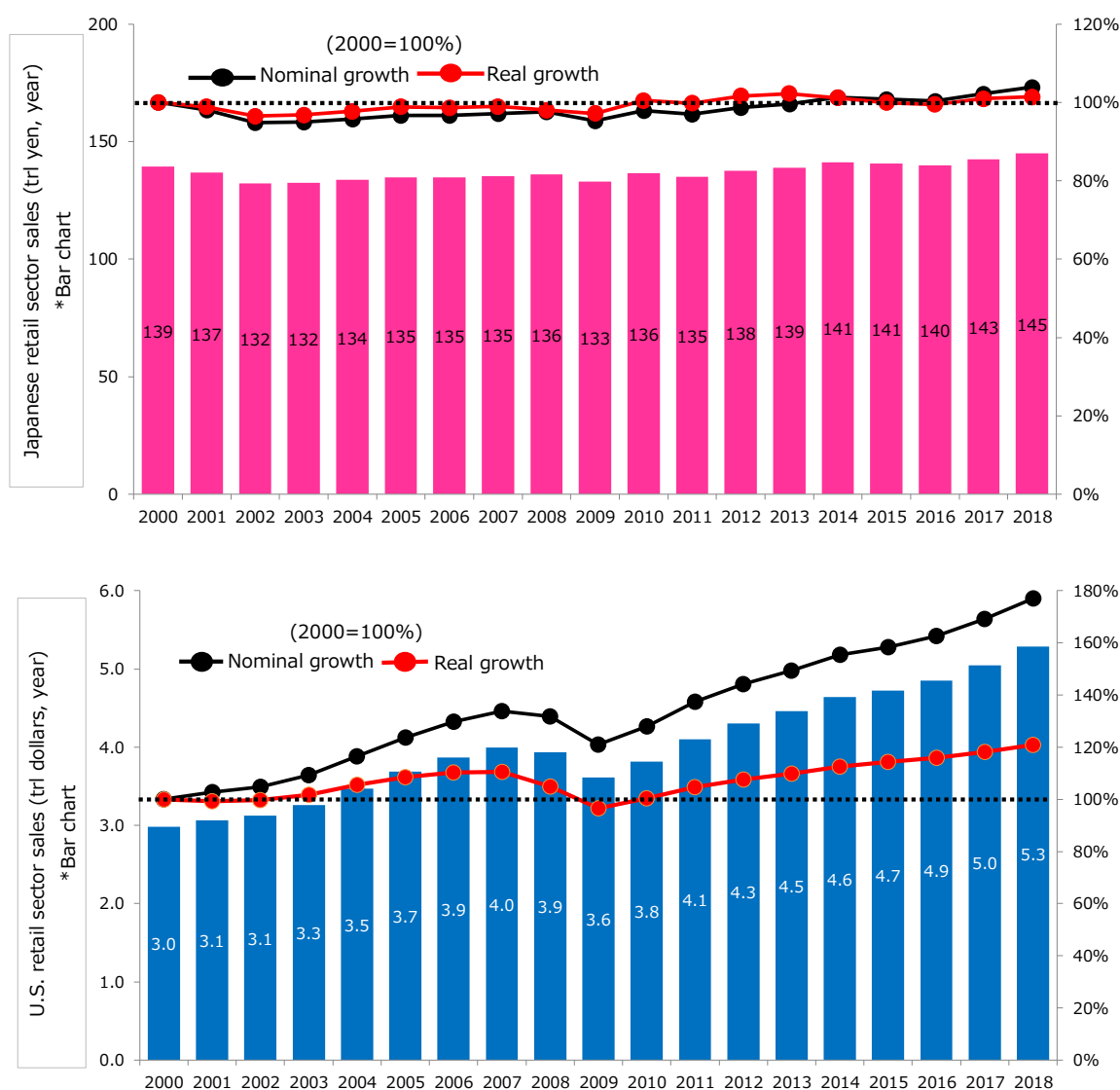
II. Comparison of current Japanese and U.S. market environments

Japan's retail sector and commercial facilities have modelled themselves on the advanced distribution sector of the United States, and have evolved by importing business categories (e.g. SM (food supermarket), GMS (general merchandise store), HC (home center), DrgS (drug store)) and SC types (e.g. NSC (neighborhood shopping center), CSC (community shopping center), RSC (regional shopping center), PC (power center)).

However, since the environment surrounding commercial facilities is different between Japan and the United States, the Japanese facilities in the near future may not necessarily follow the same path as those in the United States. In this chapter, we will compare the current Japanese and U.S. market environments from a macroeconomic perspective.

Figure 8 shows the sales of the retail sectors of Japan and the United States since 2000. Sales in Japan have generally remained flat on the back of the "lost 20 years" and "deflationary environment" following the burst of the bubble economy. On the other hand, the growth of sales of the U.S. retail sector is around 180% in nominal terms and around 120% in real terms, despite the effect of the 2008 financial crisis.

Figure 8: Sales of the Retail Industry in Japan and the United States



Source: Compiled by Xymax Real Estate Institute based on the Current Statistical Survey of Commerce by METI and CENSUS of the U.S.

Although the U.S. retail sector looks as though it is on a growing trend at first glance, major retailers such as Sports Authority, The Limited, Toys "R" Us, and Sears have gone out of business, while department store chains such as J.C. Penny and Macy's have faced mass store closures in recent years.

According to the Nihon Keizai Shimbun, the net decrease of stores (number of stores closed minus number of stores opened) in the United States was around 10,000 in total in and after 2017, and the floor space of stores that closed in 2018 hit a record high of approximately 150 million square feet, far outstripping that during the burst of the IT bubble and the 2008 financial crisis.

The impact of e-commerce, such as Amazon, is considered to be a major cause, but we believe that some of the factors were an over-supply of stores the U.S. already faced and the difference in consumer behavior from that of Japan.

Figure 9 is a comparison of the market size of Japan and the United States. According to the data, while the United States has a population around 2.5 times that of Japan, its population density (inhabitable land area) is one-twentieth of Japan's. Since approximately 70% of land in Japan is mountainous and more than 100 million people live in the remaining 30%, commercial facilities and houses are located relatively close to each other. It is this background that makes it possible for Japanese consumers, especially those who value the freshness of food, to consider SMs as their refrigerator and visit them almost every day so that they can check the products with their own eyes. On the other hand, the general purchasing behavior in the United States is to drive long distances to do shopping once or twice a week since the land is so vast.

When focusing on SCs, we can see that the market environment of the United States is considerably different from that of Japan, with the U.S.'s SCs and SC floor space per capita around five times those of Japan.

Figure 9: Comparison of Japanese and U.S. Market Environment and Shopping Centers—in Figures

| | Japan | United States | Japan vs U.S. |
|---|------------|---------------|---------------|
| Total land area (square km) | 364,485 | 9,147,593 | 1 : 25 |
| Inhabitable land area (square km) | 114,996 | 6,043,720 | 1 : 53 |
| Population (thousand) | 126,494 | 327,352 | 1 : 2.5 |
| Population density (total land area) (person/square km) | 347 | 35 | 10 : 1 |
| Population density (inhabitable land area) (person/square km) | 1,105 | 53 | 20 : 1 |
| Number of SCs | 3,220 | 47,176 | 1 : 15 |
| SC floor space (square meters) | 53,193,597 | 624,060,000 | 1 : 12 |
| No. of SCs per capita (SC/million people) | 25 | 144 | 1 : 6 |
| SC floor space per capita (sqm/person) | 0.42 | 1.90 | 1 : 5 |
| E-commerce ratio | 6.2% | 9.9% | - |
| Food e-commerce ratio | 1.9% | 1.1% | - |

Source: Compiled by Xymax Real Estate Institute based on presentation materials for the 9th financial period of Kenedix Retail REIT Corporation

However, the so-called "apparel slump," which has triggered continuous closures of regional department stores and mass store closures of a major apparel chain, shows no sign of receding in Japan, while GMSs, which used to be the leading retail category in Japan and served as the core tenant of many SCs, have not been able to pull out of poor results.

Will Japan also face a mass rise of "dead malls" in the near future as did the United States? Indeed, there is currently an over-supply of stores in Japan, while not to the degree of the United States, and commercial facilities will inevitably be subject to a selection process through a certain degree of supply demand adjustment. However, we believe that the situation in Japan will not turn out the same way as in the U.S.

One of the factors for this include the fact that, as we examined in "I-4. Changes in business category," the history of SCs in Japan is shorter than that of the United States, as the development of SCs only came into full swing in the mid-1990s, and not many SCs have reached the end of their building life. Also, SCs in Japan tend to enter into a six-year fixed-term leasehold contract with their tenants (the contract period of core tenants is long) and generally carry out periodic renovations every six years. In the U.S., on the other hand, the contract

period is long and any plans for renovations during the contract period face the difficulty of obtaining the approval of core tenants, which are often not obtained, resulting in the renovation plan being abandoned.

For owners, developers, and commercial operators, the difference in the ability to create a competitive SC that can respond to changes in the environment surrounding commercial facilities, which we will mention later, and of the times holds the key to deciding the future outcome. As the sector is currently experiencing a major paradigm shift that only occurs once every several decades, now will be the time to explore the future of the sector and of commercial facilities.

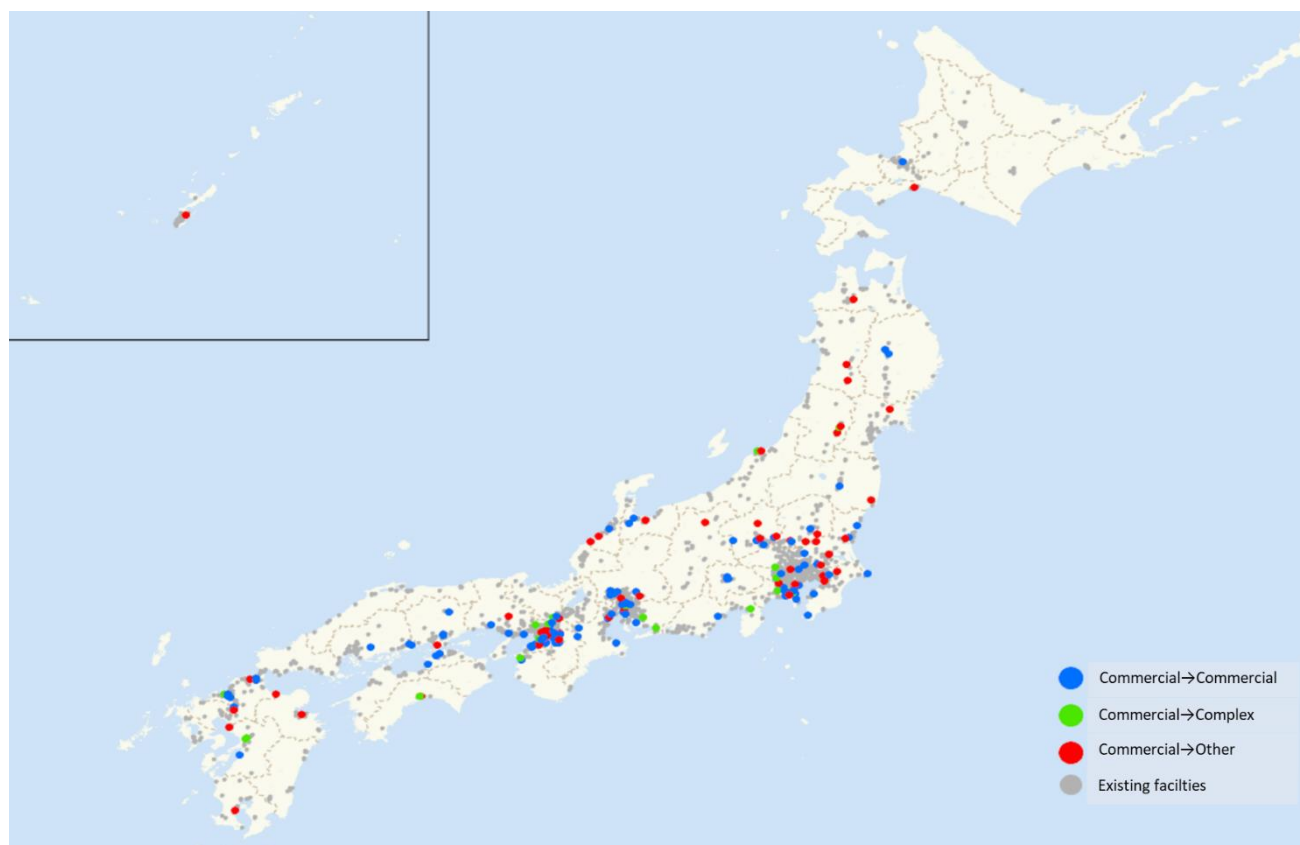
In a keynote presentation at NRF Retail's Big Show, one of the world's largest retail sector conferences hosted by the U.S.' National Retail Federation in January 2019, Rodney McMullen, Chairman & CEO of The Kroger Co. said that retail won't go away but will change dramatically from its traditional form.

III. Changes in how commercial facilities have been used in Japan

As reference material in considering the future of commercial facilities, we will introduce in this chapter the changes in the use of 173 commercial facilities (which have a retail store space of 10,000 square meters or more) that filed for abolition of the Large-Scale Retail Stores Location Act in or after 2000. (Not all facilities are covered, since an abolition report has not been filed 100%. Excludes facilities for which the use has not been decided.)

The blue dots in **Figure 10** represent commercial facilities whose main usage was merchandise retail both before and after the filing for abolition of the Large-Scale Retail Stores Location Act. They number 90 nationwide (52% share). The green dots represent facilities which served as commercial facilities that mainly handled merchandise retail before the abolition filing and turned into complexes consisting of commercial facilities and other usages after the filing. They number 25 (14% share). The red dots, which number 58 (34% share), are facilities that were commercial facilities that mainly handled merchandise retail before the abolition filing and turned into facilities for other usages not including merchandise retail. (The gray dots represent existing commercial facilities that have remained in operation as of 2015 and number 2,375.)

Figure 10: Changes in the Use of Commercial Facilities (Nationwide)



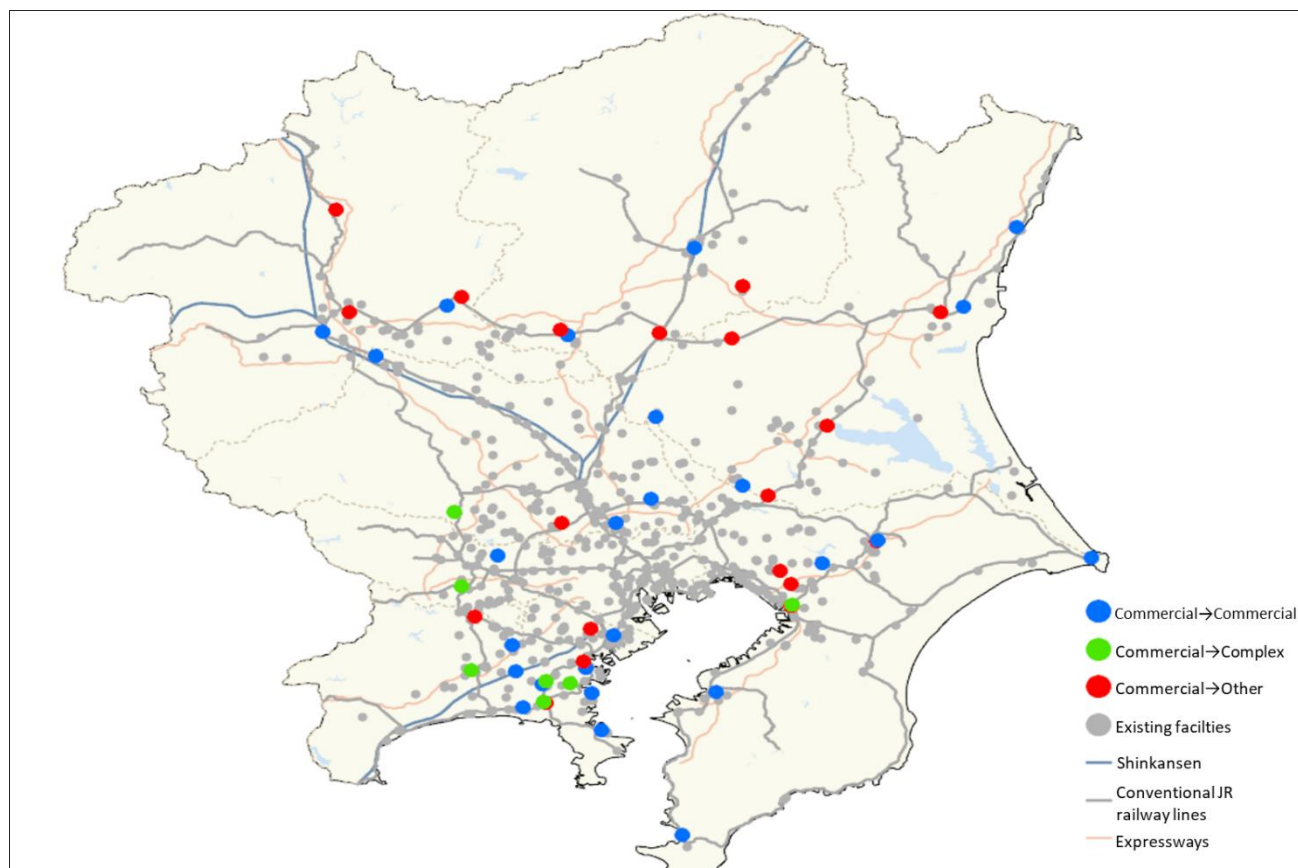
Source: Compiled by Xymax Real Estate Institute based on *2016 Databook of Nationwide Large-scale Retail Stores* by Toyo Keizai Inc. and data by METI

On a nationwide basis, facilities for commercial use (blue dots) and complexes (green dots) after the filing are clustered in metropolitan areas such as the Kanto, Kinki, and Chubu regions, while facilities for other use (red dots) can be seen relatively more in regional cities.

Common examples of other usages commercial facilities have turned into include condominiums (19), public facilities (8), pachinko parlors (8), hotels (3), and office buildings (3).

Figure 11 is a close-up of the Kanto region (Tokyo and six other prefectures) from the map of **Figure 10**. This indicates that commercial facilities that filed for abolition of the Large-Scale Retail Stores Location Act have changed their usage to various uses. Such facilities tend to be located in major railway stations, in front of railway stations, and near railway stations.

Figure 11: Changes in the Use of Commercial Facilities (Kanto Region)



Source: Compiled by Xymax Real Estate Institute based on 2016 Databook of Nationwide Large-scale Retail Stores, Toyo Keizai Inc. and METI

In this report we focused on facilities that filed for abolition of the Large-Scale Retail Stores Location Act, but the Xymax Group is also engaged in business related to changes in the use of commercial facilities. We hope to introduce our case in a separate report.

For reference, previous studies include the report for the Case Research of Downtown Vacant Building Utilization and Renovation^{*3} released by the Ministry of Land, Infrastructure, Transport and Tourism:

^{*3} Downtown activation materials and case studies of the "Case Research of Downtown Vacant Building Utilization and Renovation" <http://www.mlit.go.jp/crd/index/case/>

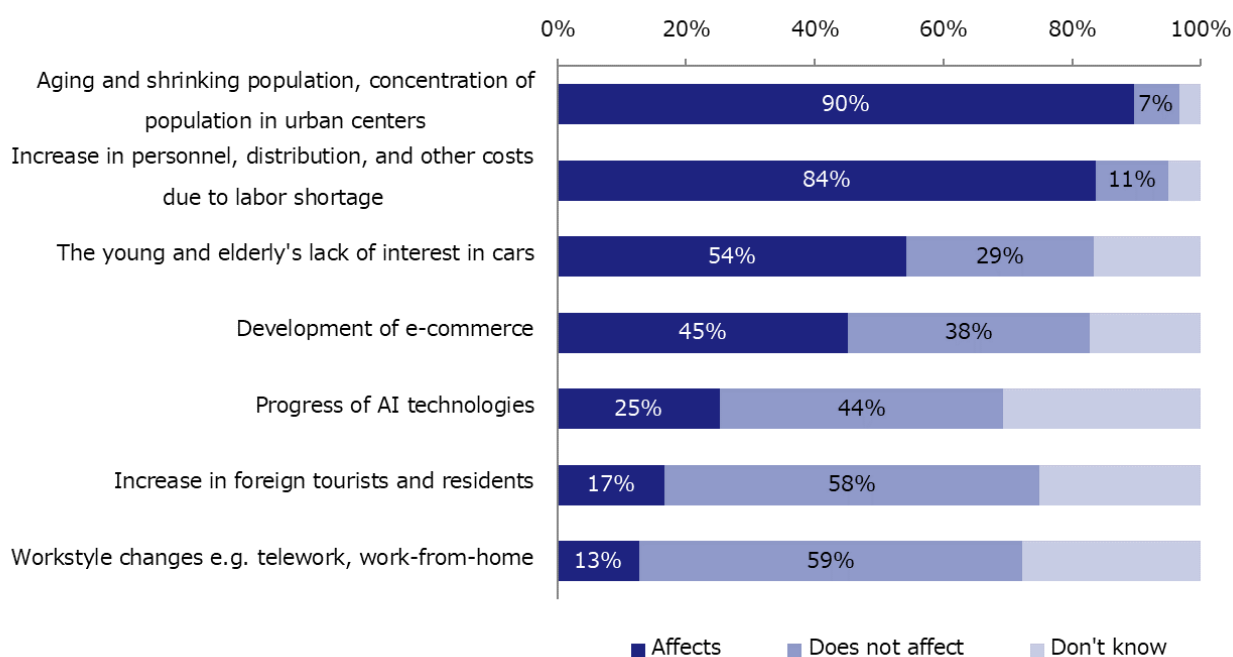
IV. Changes in the environment surrounding Japan's commercial facilities in the future

In the previous chapters, we presented the changes in the stock of commercial facilities, a comparison of Japan and U.S. market sizes, and the situation of usage conversions of commercial facilities, and acknowledged that the opening of commercial facilities is affected by laws and regulations and that changes in consumers' purchasing behavior have led to a shift in the core business categories and store opening locations.

In partnership with the laboratory of Professor Yukio Komatsu of the Department of Architecture at Waseda University, Xymax Real Estate Institute conducted the "Fact-Finding Study on the Opening & Closing of Commercial Outlets" targeting commercial operators (retail, restaurant, entertainment, and service industries) in 2017. **Figure 12** is an excerpt from the report indicating the factors that affect future store openings and closures. Based on these results, we will summarize the changes in the environment surrounding commercial facilities in the future.

*4 Refer to *Fact-Finding Study on the Opening & Closing of Commercial Outlets 2017*, released on September 29, 2017
<https://www.xymax.co.jp/english/research/images/pdf/20170929.pdf>

Figure 12: Factors that Affect Future Store Openings and Closings (n=576)



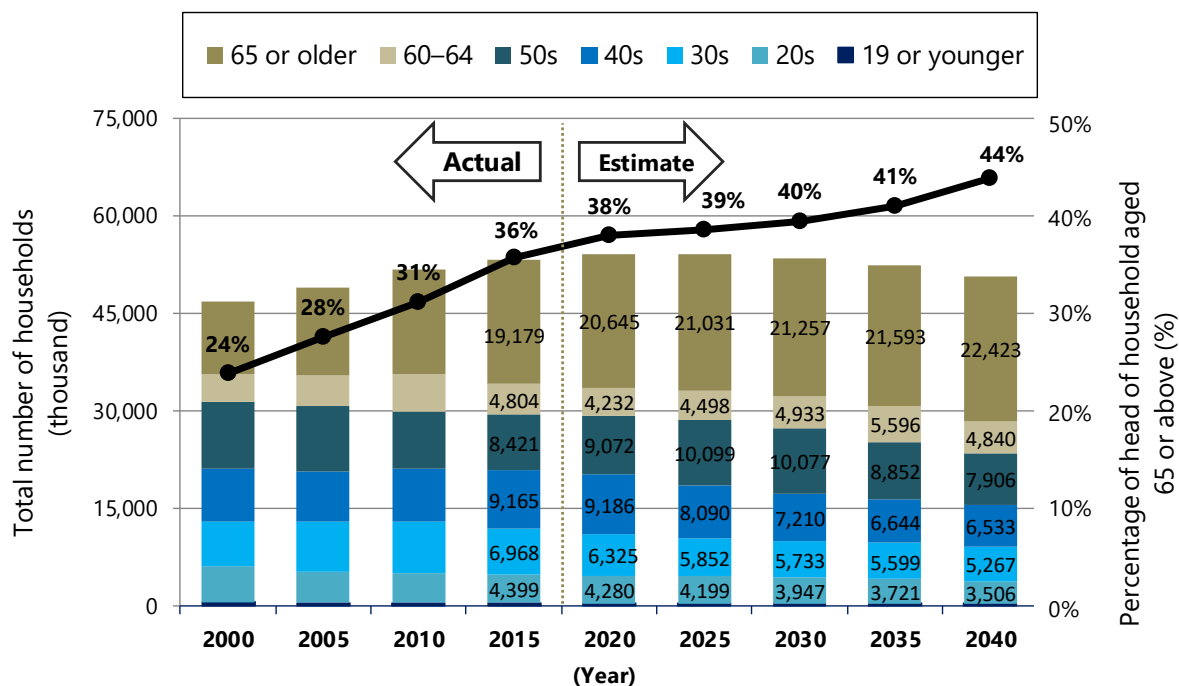
Source: Xymax Real Estate Institute

1. Aging and shrinking population

Figure 13 indicates the estimated number of households by age of head of household (bar chart) and the share of households whose head is aged 65 or above (line chart). According to these charts, the estimated number of households whose head is aged 65 or above is generally flat between 2020 and 2040, trending at a little more than 20 million. On the other hand, the estimated number of households whose head is aged 40 or under decreases significantly. For example, the number of households headed by a person in their 40s is estimated to decrease to 71% of 2015 levels by 2040.

It is necessary to note that the share of elderly households rises not because their number increases but because the number of households younger than 40 decreases.

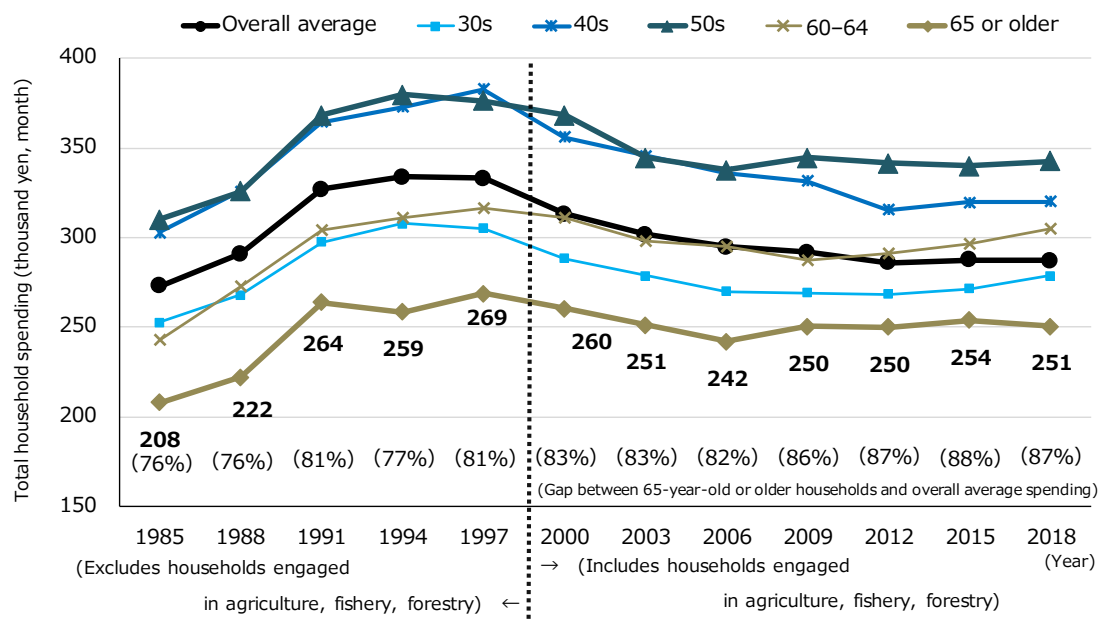
Figure 13: Change in Number of Households and Share of Household Heads Aged 65 or Above (By Age of Head of Household)



Source: Compiled by Xymax Real Estate Institute based on the Population Census by the Ministry of Internal Affairs and Communications (MIC) and Household Projections (for Japan; 2017 estimate) by the National Institute of Population and Social Security Research

Figure 14 is the household spending by age of head of household (households of two persons or more). In 2018, the households with the largest spending were those headed by a person in their 50s and those with the smallest spending was those whose head was aged 65 or above.

Figure 14: Total Household Spending (Households of Two Persons or More) (By Age of Head of Household)



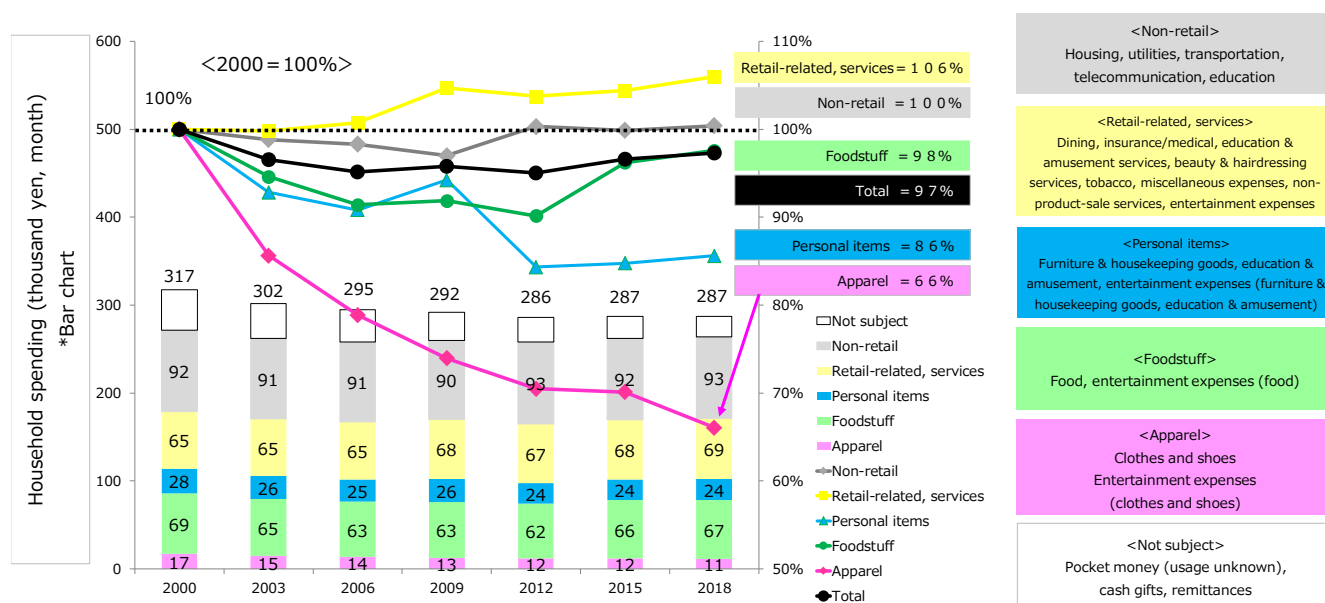
Source: Compiled by Xymax Real Estate Institute based on "Household Consumption Expenditures" by MIC

Generally speaking, household spending reaches a peak when the head of the household is in their 50s and decreases as they age further. Since the percentage of the age group with small household spending will increase due to the aging and shrinking of the population, total household spending should inevitably decrease in the long run.

In recent years, however, the spending of households headed by a person aged between 60 and 64 has exceeded the overall average since 2012, while the percentage of spending of the 65-year-old household head group to total spending has risen from 76% in 1985 to 87% in 2018, reducing the gap with the overall average. An increase of the “active seniors” group with strong motivations to spend is behind this trend, which is expected to continue for some time.

Changes can also be seen in household spending by item group. **Figure 15** indicates household spending by item group since 2000 (bar chart) and the annual trend with spending in 2000 as 100% (line chart).

Figure 15: Household Spending by Item Group



Source: Compiled by Xymax Real Estate Institute based on “Household Consumption Expenditures” by MIC

In comparison with 2000, the item group that saw the largest drop in spending in 2018 was apparel (66%), followed by personal items (86%) and foodstuff (98%). Spending on goods has continuously fell below 2000 levels. On the other hand, the item group that is rising in spending is retail-related and services (106%), which indicates that spending on non-goods and services (i.e., experience) is becoming active.

The consumption tax was raised in October 2019. This tax hike is more complex than past tax hikes, with a reduced tax rate imposed on foodstuff and reward point or cash return programs available to consumers using cashless payment. When looking at past tax hikes, there have been a surge in last-minute demand immediately before the tax hike and a reactionary drop in demand immediately after the hike. As for the trend of each item group, item groups that have high unit prices and are purchased less frequently, such as consumer electronics, furniture, interior goods, and jewelry, saw large increases in last-minute demand and reactionary drops, while products that are purchased frequently and are inexpensive, such as foodstuff and daily supplies, experienced less movement in demand. However, the impact on consumption must be determined by examining the trends over a year or so before and after the tax hike.

2. Labor shortage

According to the 2016 Economic Census for Business Activity by the Ministry of Internal Affairs and Communications (MIC) and METI, the all-industry average percentage of non-regular employees was 40.5%, with the “accommodations, eating and drinking services” industry having the largest share of 77.9%, followed by the “living-related and personal services and amusement services” industry at 56.4%. The “wholesale and retail trade” industry ranked sixth at 48.7% (the ranking is low since wholesale is included. The percentage for the retail trade industry alone is estimated to be around 60 to 70%).

After the burst of the bubble economy, retailers who sought to operate multiple stores hurried to establish an operation that could reduce the percentage of regular employees at the stores. This led to the rise in the percentage of non-regular employees. It is not rare for a non-regular employee to become a store manager or manager; store operation depends much on non-regular employees. As a result, the retail sector is more affected by the shortage of labor than other sectors due to recent changes in the employment situation.

However, there has been a growing trend of ES (employee satisfaction) improvement as part of workstyle reforms, such as shortening business hours of convenience stores, no longer opening stores on New Year’s Day, and increasing holidays. Furthermore, improvements in work productivity through future technological innovations such as AI (artificial intelligence) and robotics may solve the shortage of labor to some degree.

3. Less use of cars

As with the changes in demographics, holders of driver’s licenses are aging. When comparing the number of holders of a driver’s license by gender and age group for 2001 and 2018, the total number of holders have increased in both genders. By age group, holders in their 60s or above have significantly increased, while young holders in their 30s or below have decreased (**Figure 16**).

Figure 16: Number of Holders of Driver’s License (By Gender; 2001 vs 2018)

| Number of holders of driver's license Male (thousand persons) | | | | | Number of holders of driver's license Female (thousand persons) | | | |
|--|----------------------|---------------------------------|----------------------|---------------------|--|----------------------|---------------------------------|-----------------------|
| <2018 total> 44,944 thousand | | <2001 total> 44,143 thousand | | | <2018 total> 37,320 thousand | | <2001 total> 31,407 thousand | |
| | 7,401 | | 3,372 | 70 yrs old or older | 3,895 | | | |
| | | | | | 583 | | | |
| | 7,587 | | 6,073 | 60s | 6,335 | | | |
| | | | | | 2,596 | | | |
| | 7,736 | | 8,816 | 50s | 7,055 | | | |
| | | | | | 6,142 | | | |
| | 9,189 | | 7,772 | 40s | 8,483 | | | |
| | | | | | 6,503 | | | |
| | 7,120 | | 8,590 | 30s | 6,477 | | | |
| | | | | | 7,666 | | | |
| | 5,442 | | 8,414 | 20s | 4,711 | | | |
| | | | | | 7,285 | | | |
| | | | 520 | Up to 19 | 363 | | | |
| | | | 1,094 | | 633 | | | |
| Up to 12,000 thousand | Up to 9,000 thousand | Up to 6,000 thousand | Up to 3,000 thousand | | Up to 3,000 thousand | Up to 6,000 thousand | Up to 9,000 thousand | Up to 12,000 thousand |

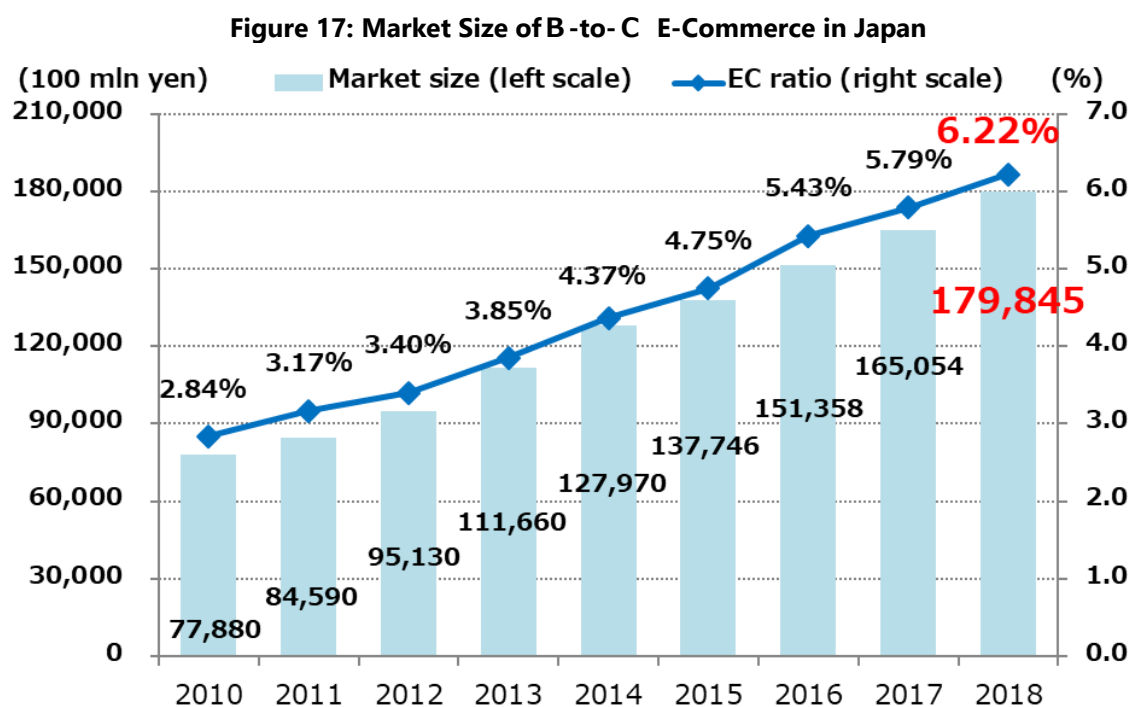
Source: Compiled by Xymax Real Estate Institute based on the 2018 Driver’s License Statistics by the National Police Agency

According to the 2015 White Paper on Land by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), the frequency of traveling in a car tends to drop when men reach the age of 75 and women 65. This means that the number of elderly people driving to commercial facilities may decrease in the future. Since the average purchase (expenditure) value is the largest by visitors who visit commercial facilities by car than by any other method such as on foot and bicycle, the drop in visitors by car will have a large impact on sales. Commercial facilities with an especially large percentage of visitors by car will have to transform into a facility that can motivate and attract consumers to visit their facility amid improved convenience of consumers due to the spread of e-commerce and progress of AI technologies.

In the future, self-driving, car-sharing, and MaaS (Mobility as a Service) may spread as a means of transport for the elderly, who will no longer drive a car, and the young, who do not own a car.

4. E-commerce

Figure 17 is the change in the size of Japan's B-to-C e-commerce market. In 2018 it was approximately 18 trillion yen, the fourth largest in the world after China, the United States, and the United Kingdom. The percentage of e-commerce was 6.22%, which is continuously expanding with the spread of flea market apps and other C-to-C e-commerce. This trend is expected to continue into the future.



Source: Compiled by Xymax Real Estate Institute based on data of the e-Commerce Market Survey by METI

In Japan where household spending is sluggish and the population has been decreasing, B-to-C e-commerce should not be viewed as a separate business since it is a trade-off with a decrease in sales of physical stores. Consumers are choosing between e-commerce and physical stores depending on the purpose such as convenience, ease, and fun. Recent developments including Amazon's acquisition of a major food supermarket in the United States and a major Japanese apparel operator's intention to raise its e-commerce sales ratio to 30% indicate that e-commerce and physical stores complement each other to provide seamless customer contact opportunities.

The raison d'être of commercial facilities is no longer only "physical." They will have to consider a growth strategy by continuously adjusting their positioning between digital and physical in order to respond to changes in consumers' purchasing behavior.

5. Progress of digital technologies

In recent years, commercial facilities have been making various new attempts following the progress of digital technologies such as AI and 5G as well as the emergence of new concepts including DX (digital transformation). DX is a concept that considers the penetration of IT to improve people's lifestyle in all aspects.

The progress of digital technologies is expected to bring about three major changes to commercial facilities. One is the improvement of work productivity. With DX, all work processes such as marketing, product development, production, transportation, inventory management (order placement and delivery), customer management, store personnel optimization, sales promotion, customer service, sales, and distribution will be broken down into separate processes and handled by applications or specialized companies instead of being carried out in-house, resulting in improved efficiency. The second change is improved precision of forecasts and analyses using AI. AI technologies that directly lead to greater sales and profit are being put into practical use, such as visitor forecasts by hour, customer guiding by human detecting sensors, customer attribute analysis using image recognition technology, and inventory adjustment based on demand forecasts. The third major change is the provision of unprecedented customer experience based on 5G. Contents that take advantage of 5G's strengths—high speed, large capacity, and multiple connection—are expected to be developed and to become new devices for attracting customers.

6. Inbound visitors

The number of foreign visitors to Japan (inbound visitors) exceeded 10 million for the first time in 2013 and 30 million only five years later in 2018. The government's target of 40 million by 2020 does not seem unfeasible. However, the number of foreign visitors to France was more than 90 million in 2018. Japan is still a developing nation in terms of tourism and must continue to improve its presence in the international competition.

In recent years, inbound visitors' tourism destinations have become more diversified. According to the Japan Tourism Agency's Consumption Trend Survey for Foreigners Visiting Japan, 61.4% of the inbound visitors in 2017 were repeat visitors who have visited Japan twice or more, and visitors tended to visit rural areas more as they visited Japan more often. The spread of visitors from well-known destinations to little-known destinations has been triggered by the development of transportation infrastructure, promotion of tourism resources, and the development of accommodation facilities, and has invigorated regional economies. According to the land price publication released in March 2019, land prices have risen significantly not only in urban sightseeing destinations such as Asakusa but also in regional destinations such as Niseko of Hokkaido, which have attracted inbound visitors and boosted demand for commercial and accommodation facilities. The key to increasing the appeal of and differentiating sightseeing destinations, eventually attracting more inbound visitors, will be to continue addressing the various needs of the visitors such as increasing opportunities for "spending on experience."

Consumption by inbound visitors exceeded 4.5 trillion yen in 2018, the highest in past history. The main constituents were accommodation 30%, shopping 35%, and food and drinks 20%. The key to capturing and expanding consumption by inbound visitors will be to provide products, services, and experiences that match their needs. Examples include events linked with the local event calendar in cooperation with local governments. Efforts such as disseminating such information through social media and having visitors post reviews may enhance recognition of the commercial facility and lead to repeated purchase of products via cross-border e-commerce or attract new inbound customers.

7. Telework

Telework, which includes working from home and from third-place offices, is an important workstyle strategy that is being promoted by the government and is expected to spread further among workers. In recent years, an increasing number of commercial facilities have been providing nurseries and day care services within the facility, many of which are open to the local residents in addition to the employees working in the facility. Such initiatives contribute to solving social issues such as waiting lists for nursery schools as well as aiming to enhance the role of commercial facilities as infrastructure that support the lives of consumers. Similarly, when the time comes when telework becomes commonplace at companies, it is likely that third-place offices will not only increase in office buildings near railway stations in urban centers but also in commercial facilities. The progress of telework is expected to change the movement of people, such as commuters. As a result, it has the potential to, for example, significantly change the number of incoming and outgoing passengers at railway stations and alter the concept of prime locations within the real estate market. Since the suburbs have more daytime and nighttime population than major railway stations of major cities, where nighttime population is scarce, they may come to be more preferred as a location for commercial facilities.

V. Interviews with players of commercial facilities

In this chapter, we will introduce the comments obtained in the interviews with six companies involved in owning, developing, and operating commercial facilities on topics of: 1) the environment surrounding commercial facilities in Japan; and 2) commercial facilities in the future.

1. Environment surrounding commercial facilities in Japan

<Apparel slump>

With regard to the apparel slump, some pointed out changes in consumers' values toward apparel in comments such as the following: "Stores from different segments for each generation used to account for a majority of the tenants of shopping centers, but now the popularity of fast fashion is rising among all generations;" "consumers do not require anything as long as they can buy good items cheaply and wear them for a long time."

Some also pointed out that due to the penetration of smartphones, "Consumers used to express themselves with fashion but now they present their hobbies and interests on social media. Fashion has become only a part of that." A developer of commercial facilities said, "The share of apparel tenants has dropped in recent years and are being replaced by tenants providing services. The problem is that their rent levels are lower than apparel tenants."

Other comments included, "There seem to be concerns about the situation surrounding commercial facilities in Japan due to the recent news of the withdrawal of a foreign fast fashion brand, but I think it is an overreaction. The withdrawal was a result of competition between brands and only of one client among many. There is hardly any impact."

<E-commerce (EC)>

All of the companies interviewed were considering strategies against the rise of EC. For example, some sought to become a commercial facility that is less affected by EC by structuring NSCs mainly with food, experience, and service tenants, while many, including large-scale facilities, intended to enhance their physical stores by considering what to do for customers who visited their facilities to enjoy shopping, since there are things that only physical stores can do.

With regard to enhancing physical stores, another interviewee said, "Commercial facilities will face difficulty unless they attract food tenants that have the power to attract many customers. Additionally, in order to sell apparel at physical stores, it is necessary to provide more training to employees on customer service and coordination. Currently they seem to be no different from simple operators."

Due in part to changes in consumers' behavior toward EC, some pointed out the importance of distribution, saying, "The line between stores and distribution is becoming blurred as delivery functions are being added to physical stores, such as sending products from commercial facilities or handing products to customers who come to the store to receive them."

Issues pointed out by commercial developers included the rent setting on EC sales. An interviewee said, "Currently rents are not imposed on EC sales. There are many ways for settling EC purchases, such as purchasing online and having the product delivered to home, receiving the product at a store, and receiving and paying at a store, but at the moment there are few tenants in Japan that have a system that can identify and manage EC sales."

<Aging and shrinking population>

With regard to the aging and diminishing population, an interviewee said, "Commercial facilities in the suburbs will face difficulty over the next several years. It will be difficult for customers to come by car due to the declining and aging of the population. When complete autopilot becomes available in the future, it will make it easier for old people to visit the facilities, which will reduce the disadvantages of being located in the

suburbs. On the other hand, self-driving will prompt selection between good commercial facilities and those that are not." Another interviewee commented, "There will be more elderly people returning their driver's license, but I am not that concerned since there will self-driving."

<Labor shortage>

With regard to personnel recruitment upon opening new stores, an interviewee said, "We are collaborating with a major staffing service provider in personnel affairs. As a developer, we do not restrict part-timers from working in different stores in the same facility, such as in store A during the morning and in store B in the afternoon (working in competitor stores is prohibited)," while another commented, "We are refraining from opening stores since we have difficulty gathering personnel and the retention rates of people we hire are also low. If we cannot hire, we must depend on temporary staff, but that will mean higher personnel costs," which indicate that recruiting personnel and improving retention rates are urgent issues.

<Difference from the United States>

The difference in the market was pointed out as the difference from the United States. An interviewee said, "The population is expected to increase in the United States while it will decrease in Japan. Since the basis of the market such as population density differs between Japan and the United States, it would be a risk to follow the path of U.S. commercial facilities in terms of store opening strategies, store strategies, and sales strategies."

2. Commercial facilities in the future

<Providing new value for consumers>

When the opening of SCs came into full swing in Japan, the core tenants of large-scale SCs such as RSCs were mainly GMSs and department stores. However, consumers today do not select commercial facilities based on the strength of their core stores but on the value for the consumers. As suggested in the comments such as, "We will provide consumers with a wide range of customer experience as the overwhelming top store in the community," "We will provide convenience through NSCs that are rooted in the daily lives of the local people," and "We will provide value in every situation of daily life by being included as one of the options on a fine day in addition to going to the park or doing sports, or always providing something fun such as events," the key to survival will be to provide consumers, who choose from different commercial facilities depending on the purpose, with the purpose or value of choosing the particular facility.

<Digitalization>

Many of the interviewees acknowledged that Japanese commercial facilities lagged behind in digitalization compared to other countries in the world. An interviewee commented, "We must learn from China. For example, being able to book any restaurant with a smartphone, which is taken for granted in China, is not possible in Japan," while another pointed out the need for commercial facilities to consider how to survive in the age of 5G, saying, "Thorough digitalization is necessary. The importance of digital will rise as digital natives soon become parents and 5G spreads. For example, live performances of idol groups and rakugo, which could previously only be experienced in central Tokyo, will be able to be experienced at commercial facilities in the suburbs through virtual, simultaneous, and interactive live transmission to multiple locations."

<Real estate commercialization (integration)>

In recent years, the floor space ratio of apparel tenants in commercial facilities has been declining, giving way to non-merchandise sale and service tenants. Since the rent levels of apparel tenants are relatively high and facilities require sources of revenue to replace them, comments included, "As a pillar of alternative business, we plan to open a commercial facility with offices on the upper floors. Since construction costs are soaring, we decided to take in offices. If this format succeeds, we will continue it," and "If the location is good for offices and houses, a complex of commercial facilities on the lower floors and offices and residences on the upper floors may be the most efficient real estate facility." Going forward, we expect to see more commercial facilities that incorporate offices, residences, and distribution facilities depending on the location and market, with new pillars of business being the utilization of excess floor space and real estate income.

Concerning redevelopment, an interviewee said, "The rights and claims are complicated, and redevelopment will be difficult under the assumption that land prices will rise. In locations in front of railway stations, parking space cannot be secured. Converting commercial facilities may involve a large burden of retroaction of current laws to the existing property, and scrap-and-build may be more profitable in the long run even if initial investment is required."

<Co-existence with the community>

In the past, many commercial facilities have sought co-existence with the community in various ways, such as introducing administrative facilities, releasing the facilities as disaster-prevention facilities, and making efforts to improve the living environment. Here we introduce some of the comments obtained from the interviews on co-existence that will be required of commercial facilities in the future.

One of the ideas was to use commercial facilities as the "third place," as mentioned in the following comment: "A place for self-discovery, self-fulfillment, and for being oneself. The first place is the home, the second place is the school or the company, and the third place is where one can be oneself. Facilities that can provide opportunities for self-improvement through experience and self-enlightenment may be able to survive." Another interviewee was more specific, saying, "How about separating extracurricular activities from schools and allowing such activities at commercial facilities? It could be for working adults' activities as well. It would lead to workstyle reforms of the faculty members and would also be a second career for those who coach for the activities well."

Other comments included, "Becoming a place to discover and connect with people who hold the same values as you do through events where fashionable people and local people gather may be a strength of commercial facilities," "It is necessary to make various efforts to transform commercial facilities so that the local residents will acknowledge the facilities as a place they want to go shopping and to be in," "It will also become important to consider negative data including the shrinking and aging population as positive concepts that describe the 100-year life and support for three generations in an effort to generate new demand."

Summary

In this report, we examined Japan's commercial facilities from a wide range of aspects in order to have an outlook of their situation of the near future. We first analyzed the sales of the retail sector and sales floor space of the past 40 years and confirmed that sales floor space has continued to expand amid sluggish sales. Factors behind this were the strategies of retailers and changes in laws and regulations, which encouraged new development and store openings. Looking at past store opening trends, we confirmed that the core business categories have shifted from GMSs to specialty stores and SCs, while the core locations have shifted away from major railway stations, in front of railway stations, and near railway stations to locations along major roads.

We then compared the market environments of Japan and the United States from a macroeconomic perspective and concluded that the emergence of dead malls in the United States as have been reported in the media recently is unlikely to happen in Japan due to differences in the market's nature and consumers' purchasing behavior. In order to examine the changes in how commercial facilities have been used, we studied the changes in the usages of commercial facilities that filed for abolition of the Large-Scale Retail Stores Location Act. As a result, we found that while some continued to be used as commercial facilities, around half had been transformed into complexes and various usages other than commercial facilities due to the surrounding environment. In order to consider commercial facilities of the future, we looked at how changes in the socioeconomic environment, such as an aging and shrinking population, labor shortage, less use of cars, e-commerce, progress of digital technology, inbound demand, and telework, affected commercial facilities. Lastly, we interviewed commercial players that actually carry out development, investment, operation, and planning of commercial facilities on the environment surrounding the facilities and the future of the facilities.

As we have examined, since Japan does not have an over-supply of stores as in the United States, it is unlikely that commercial facilities will close down one after the other. Although there is no doubt that commercial facilities have been and will remain to be properties necessary for society, selection of the facilities is expected to proceed in the future due to the accelerating changes of the times and society. In order to remain to be a commercial facility that is supported and chosen by customers, it will become increasingly important for commercial facilities to be sensitive to the changes of the times as well as to customer needs, and to embrace comprehensive management abilities such as solid management, flexible operation, and appropriate tenant mix, instead of simply serving as a building that houses tenants.

Xymax Real Estate Institute intends to continue researching commercial facilities and disseminating information while capturing the trends of the retail sector as well as changes in the social environment.

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